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## **PROJECT: CONSERVATION OF THE MANGROVE ECOSYSTEM IN THE GAMBIA THROUGH THE REDD+ MECHANISM**

### **Technical Feasibility Report**

**Submitted to:**

**ORSTED**

Kraftværksvej 53 – Skærbæk, 7000 Fredericia, Denmark



By

**NIRAS**

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## Executive Summary

### Context and objectives

S2 Services and NIRAS attracted the interest of ORSTED – the largest Danish energy utility company – to invest in this REDD+ project in The Gambia with objective to address the drivers of change, rehabilitate degraded mangroves stands, and improve livelihood and economic and community development. To complement and validate the desk research, interaction with local partners and existing knowledge of the project based on previous work in Gambia, a feasibility field mission was organized in The Gambia in November and December 2020.

The mission had as objective to provide the project developer with pertinent information needed to guide the formulation of project activities and orientate the implementation and monitoring strategies under carbon finance standards. Specific objectives were:

- Have a better understanding of the project area and the baseline situation;
- Conduct first round of local stakeholder consultation;
- Consolidate relationship with local institutions and project partners; and
- Secure endorsement and exclusivity for the implementation of the project and offsetting of generated carbon credits.

The field mission had a remarkable success, and all objectives were met, including the endorsement and exclusivity letter addressed to ORSTED. A copy of the letter is available in Annex 1.

### Methodological framework for a successful field mission

The Gambian field mission was articulated around three interactive phases:

- Working & planning session with consortium members;
- Consultation of sectorial ministerial departments;
- Mangrove Site visits: consultation with mangrove dependent communities;
- Workshop with Key Stakeholders.
- Post workshop synthesis and consolidation

Annex 2 presents the proceedings of the field mission.

### Findings and Orientations of the Project

#### Situational analysis of mangroves in The Gambia

Mangroves appear in all the 5 administrative regions of Gambia covering a total surface area of 65 000 ha (5.6% of total country land surface) with a population of 298 231 people (population density 5.3 pers/ha or 532.6 pers/km<sup>2</sup> leaving in 54 mangrove covered communities within less than 1.5km from the mangrove. About 7.4% of the mangrove areas are degraded with 0.8% planted. Current drivers/pressures/threats include sea level rise, agricultural development (dykes & damps-salt extraction damps), poverty, Population expansion, urbanization and industrial development livestock breeding (cattle, sheep, goat...).

Many stakeholder groups have intervened in undertaking various activities to address the threats and improve livelihoods of the population living around the mangrove areas. They ranged from conservation efforts of government facilitated by NGOs and CBOs whose

intervention stemmed from the 1990s. Details are presented in Tables 3-4 together with SWOT analysis of their interventions.

## **Orientations for Mangrove REDD+ Project formulation**

### **Problem analysis**

The root and direct causes of mangrove degradation and loss as well as their effects are presented in a problem tree model. Identified root causes are: lack of alternative livelihoods (income generation activities), absence of enabling environment (policies/laws/regulations/enforcement), insufficient technical capacities of stakeholders on mangrove conservation and knowledge on mangrove biodiversity & dynamics and low investment in appropriate technologies. These exert manifested pressures on mangroves (encroachments, resource extraction, etc.). Their major effects are: mangrove die-back and declining productivity, mangrove habitat shrinkage, mangrove biodiversity loss and proliferation of invasive species, sea level rise, GHG emissions and declining income from mangrove forest resources.

### **Stakeholder's analysis**

Sectorial department are various state departments linked to mangroves especially departments with ministry in-charge of environment, parks & wildlife, forestry, agriculture, local government and tourisms.

Project stakeholders in terms of the impact on the project and their influence, they can be classified to range from “Very vulnerable group” with very high impact but very low influence notably salt extractors, oyster collectors, fishermen, fisher women and fish smokers, farmers (rice cultivators, vegetable farmers and others; to “Very high defender group” with very high impact and high influence including Ministry of Environment, Climate Change and Natural Resources (MECCNR), Department of Parks and Wildlife Management and Biodiversity Conservation (DPWM), Ministry of Local Government (MINLG), Village Head (Alkalo), Women and Community Based Organizations (CBOs) and Non-governmental Organizations (NGOs). Apathetic/indifferent group with low impact and influence include the Police Department and headsmen (cattle rarer) no identified group in the promoter group with low impact but very high influence. Other stakeholders fall within these extreme groups.

### **Project theory of change (TOC)**

The project will have as an overall strategy to implement concrete climate smart actions/activities that address mangrove degradation & loss and create value for communities with results/outputs that address direct causes of mangrove degradation & loss while their outcomes will address root causes with overall impacts restored mangroves with enhanced carbon capture & storage potentials reducing GHG emissions.

### **Project logical framework**

Unlike the Theory of Change (ToC), The Project Logical Framework (Logframe) giving the vertical logic of arrangement of project elements activities to produce outputs, outputs leading to outcomes and outcomes attaining the set objectives and each element subjected to horizontal logic of defined performance assessment indicators, their source of verification, assumptions, risk and their mitigation measures (see details presented at Annex 4 and 5). The project will have as an overall objective:

***“Enhance Resilience of Vulnerable Coastal Areas and Communities to Support Conservation, Landscape Restoration and Sustainable Use of local resources for Biodiversity Conservation, Sustainable Livelihoods and Emission Reduction in Gambia”***

**Specific objectives are:**

- Conserve and expand existing protected areas and establish new ones to improve the management of natural resources, create 5 new PAs (Component 1: Conservation)
- Improve community livelihood and natural resource management (Component 2: Livelihood, community development and natural resources management)
- Strengthen capacity of stakeholders and institutions to implement climate smart actions (Component 3: Capacity building and institutional development)
- Restoration of degraded mangrove forest landscape of The Gambia (Component 4: Mangrove landscape restoration)
- Project effectively managed and monitored in a cost-effective Managed (Component 5: Project management).

These components are arranged in the logically achievable manner, results with their associated activities.

**Project organization structure and teaming arrangement**

The Project organogram will consist of four basic management structures: Project Steering Committee (PSC), Project Management Unit (PMU), Project Technical Implementation Unit (PTIU) and Project Site Coordination Unit (PSCU). The Department of Parks and Wildlife Management (DPWM) that manages all protected areas in The Gambia will be the entry point for all government institutions in the implementation of project activities. This is due to the fact that over 80% of protected areas in The Gambia are mangroves. The Consortium (SWC: Sahel Wetland Concern, WABSA: West African Bird Association and KOMFFORA: Kombo Foni Forestry Association) will be the entry point for all NGOs and CBOs.

**Project Estimated Budget**

Estimated budget of activities will basically include the cost of inputs: human and material resources. This will be used to run the activities such that the results are obtained and the objectives of the project area met. Current estimated project cost stands at about 144 million USD including investment cost.

**Estimated emission reduction potential for the project**

Two components were considered for the emission reduction estimation: emission reduction from conservation (avoided deforestation and land degradation) and emission reduction from mangrove landscape restoration (reforestation).

This estimate was done using information from literature, from which we estimated the annual deforestation rate (1%), obtained carbon stocks densities per hectare in biomass and soil, and diameter distribution. Thanks to the estimated deforestation rate earlier mentioned, areas likely to be degraded in the absence of the REDD+ project were estimated and the carbon stocks in different sinks (above ground biomass, below ground biomass and soil organic carbon) were as well estimated. The total emission reduction from conservation (avoided deforestation and land degradation) during the 30 years project crediting period is estimated at about 3 000 000 tCO<sub>2</sub>e.

The project has as ambition to plant 10 000 ha degraded mangrove areas with *Rhizophora mangle*-90% and *Avicennia germinans* -10% (desired species) in the first 5 years. With a planting distance of 1 m x1 m, the plantations will have a density of 10 000 trees/ ha. By using the allometric equation proposed by Sukardjo & Yamada (1992) to estimate total biomass, biomass carbon stocks estimate were done by considering 47% of total biomass to be carbon according to the clean development mechanism. After deducting 10% to account for the buffer zone, the total emission reduction from mangrove landscape restoration (reforestation) during the 30 years project crediting period is estimated at over 31 000 000 tCO<sub>2</sub>e. This makes about 3100 tCO<sub>2</sub>e for one hectare in 30 years, thus on average 103 tCO<sub>2</sub>e per hectare per year.

Thus the project could potentially capture over 34 000 000 tCO<sub>2</sub>e during the 30 years project crediting period. This is a first-hand theoretical estimate which could be confirmed by evaluating mangrove forest parameters on previously established Permanent Sample Plots (PSPs).

With the total project cost estimated at about 144 million USD, the cost for reducing a ton of CO<sub>2</sub>e is about 4.24USD.

### Next steps

Next steps will be oriented towards acquiring baseline information for the development of further project support documents and carbon negotiations.

|   | Activity                                                    | Objective of the activity                                                                                                                                                                                              | Place of work                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | Month 1 | Month 2 | Month 3 | Month 4 |
|---|-------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------|---------|---------|---------|
| 1 | Historical analysis of deforestation and forest degradation | This will help to improve emission reductions from conservation                                                                                                                                                        | In Cameroon with an expert prior to designing field data collection (groundthuthing procedures)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |         |         |         |         |
| 2 | Mapping of reforestation and restoration areas              | Validate the planned 10,000 ha of mangrove to be replanted<br>Locate exact reforestation spots<br>Locate exact degradation spots and needs of restoration<br>Determination of species mixtures and proportion per site | (1) More than 80% for field work in Gambia (at least 20 days for other experts/assistants) (Total 20 days for Princial Investigator (PI) for enire work including carbon assessment making 2 trips: First 10 days for initiation of team with 2 experts & last 10 days for evaluation/synthesis) : field work needed for (a ) location/selection of sites for reforestation/afforestation (b) Determine mangrove species combinations within the context of the sites to maximise carbon sequestration and biodiveristy (2) Write up (Cameroon by Principal Investigator) for atleast 10 days                                                    |         |         |         |         |
| 3 | Evaluation of carbon stock and forest dynamics              | Review and evaluation of the existing Permanent Sampling Plots                                                                                                                                                         | Also see the joint description of this activity with that above: (1) More 80% for field work in Gambia (atleast 40 days) (Total 20 days for Princial Investigator (PI): First 10 days for initiation of team with 2 experts & last 10 days for evaluation/synthesis) : field work needed for (a) field checks, reassessment & remeasurement of PSP, (b) distructive biomass sampling to determine carbon stock determined tree constants (BEF, RSR...) and soil organic carbon which are mostly site specific (c) Possible laboratory analysis (lab available in Gambia) (2) Write up (Cameroon by Principal Investigator) for at least 10 days. |         |         |         |         |
| 4 | Carbon asset estimation                                     | Carbon asset methodology analysis, methodologies and tools selection, estimation of baseline, additionality, potential for emission reduction etc. put together in a PIN                                               | Cameroon                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |         |         |         |         |

|   | Activity                                                                   | Objective of the activity                                                                                                                           | Place of work          | Month 1 | Month 2 | Month 3 | Month 4 |
|---|----------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------|------------------------|---------|---------|---------|---------|
| 5 | Capacity building need assessment in Gambia                                | To anticipate on how the project will be implemented in Gambia                                                                                      | In Gambia and Cameroon |         |         |         |         |
| 6 | Recommendations to the Gambia government on REDD+ institutional management |                                                                                                                                                     | In Gambia and Cameroon |         |         |         |         |
|   |                                                                            |                                                                                                                                                     |                        |         |         |         |         |
| 7 | Assessment of co-financing options                                         | Produce and extended executive summary of the feasibility report and contact and if possible conduct negotiations and agreements with co-financiers | In Gambia and Cameroon |         |         |         |         |
| 8 | Negotiations with NIRAS/ORSTED                                             | Aim to get a final agreement with ORSTED in April                                                                                                   | In Cameroon            |         |         |         |         |

After the next steps presented in the table above, the final step prior to the implementation will be the development of the PDD following the selected standards, most likely VERRA. This will include all methodological needs, social and environmental impact assessment, gender impact assessment, DOE validation, registration under the selected standard (VERRA most likely) etc. Total cost will be evaluate together with NIRAS and ORSTED after final agreement is secured will all parties.

## Acknowledgements

We want to sincerely thank The Honorable Minister of Environment, Climate Change and Natural Resources, Mr Lamin B. DIBBA for granting the team a very interactive audience and issuing the letter of Endorsement and Exclusivity to ORSTED. During our interactive discussions with him, we benefited from his extensive knowledge and wealth of experience on the environment. Similar appreciation goes to the various sectorial departments we visited for their inputs not forgetting National Environmental Agency headed by Mr Doudou who together with his staff Mr Jawo produced the thematic maps used in this report. The consortium members and their staff worked very hard throughout our stay in Gambia and this is deeply acknowledged. A hand of appreciation to the various communities visited for their kind hospitality.

It's highly appreciated that ORSTED covered different costs associated to the implementation of the field mission and we heartily thank them for that, as we proceed with further development of the work to lead to a final agreement for co-financing and implementation of the project.

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## List of Abbreviations

|          |                                                                                                                                                                              |
|----------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| ABP      | Adoption of Best Practices                                                                                                                                                   |
| AGBC     | Above Ground Biomass Carbon                                                                                                                                                  |
| BGBC     | Below Ground Biomass Carbon                                                                                                                                                  |
| AU       | Administrative units                                                                                                                                                         |
| CBD      | Convention on Biological Diversity                                                                                                                                           |
| CBO      | Capacity Building Officer                                                                                                                                                    |
| CLO      | Community Liaison Officer                                                                                                                                                    |
| CMO      | Carbon Monitoring Officer                                                                                                                                                    |
| CRR      | Central River Region                                                                                                                                                         |
| DC       | District Chief                                                                                                                                                               |
| DoF      | Department of Forestry                                                                                                                                                       |
| GBA      | Greater Banjul Area                                                                                                                                                          |
| GIS      | Geographical Information System                                                                                                                                              |
| ICCA     | Indigenous Community Conserves Area                                                                                                                                          |
| IGAs     | Income generating Activities                                                                                                                                                 |
| KOMFFORA | Kombo Foni Forestry Association                                                                                                                                              |
| LRR      | Low River Region                                                                                                                                                             |
| MDC      | Mangrove Dependent Communities                                                                                                                                               |
| MEO      | Monitoring & Evaluation Officer                                                                                                                                              |
| MINAFWR  | Ministry of Agriculture, Fisheries and Water Resources                                                                                                                       |
| MINECCNR | Ministry of the Environment, Climate Change and Natural Resources                                                                                                            |
| NBR      | North Bank Region                                                                                                                                                            |
| NTFPs    | Non Timber Forest Products                                                                                                                                                   |
| PCU      | Project Coordination Unit                                                                                                                                                    |
| PRA      | Participatory Rural Appraisal                                                                                                                                                |
| PSC      | Project Steering Committee                                                                                                                                                   |
| PTA      | Project Technical Adviser                                                                                                                                                    |
| PTEU     | Project Technical Implementation Unit                                                                                                                                        |
| REDD+    | Reducing Emission from Deforestation and Land Degradation and the role of Sustainable Forest Management and the Enhancement of Forest Carbon Stocks, in Developing Countries |
| RG       | Regional Governor                                                                                                                                                            |
| SCU      | Site Coordination Unit                                                                                                                                                       |
| SGPF     | Small Grant Project Fund                                                                                                                                                     |
| SOC      | Soil Organic Carbon                                                                                                                                                          |
| SWC      | Sahel Wetland Concern                                                                                                                                                        |
| TU       | Technical Unit                                                                                                                                                               |
| UNFCCC   | United Nation Framework Convention on Climate Change                                                                                                                         |
| VDC      | Village Development Committee                                                                                                                                                |
| WABSA    | West African Bird Study Association                                                                                                                                          |
| WC       | Word Counsellor                                                                                                                                                              |
| WCR      | West Coast Region                                                                                                                                                            |

# 1. Introduction

## 1.1 Context of the project

The mangroves of The Gambia covering a surface area of 650 km<sup>2</sup> (65 000 ha) serves as a live support system to the Gambians and the world at large. Amongst the services are the provision of firewood, fencing poles, roofing material, regulation of environmental processes, and provision of non-timber forest products (NTFPs) and the support of aquatic life.

Despite their importance, mangrove stands have decreased drastically within the past years due to anthropogenic activities with drought, loss in biodiversity, food insecurity, and global warming being the most consequences. The Gambia is conscious of the status and importance of its mangrove landscape in climate change mitigation and livelihood support though with no REDD+ strategy at the moment. Though with a low engagement in the REDD+ strategy development, The Gambia has taken steps like formulating its Intended Nationally Determined Contribution (INDC) to address climate change issues.

The project for the “Conservation of the Mangrove Ecosystem in The Gambia through the REDD+ Mechanism” to be implemented will contribute to the achievement of the INDC of The Gambia. The project aims to accompany the populations in adopting sustainable habits and practices that will enhance their living standards while contributing to environmental protection, biodiversity conservation and climate change mitigation. The implementation will include all stakeholders in every stage of the project.

## 1.2 Context of the mission

S2 Services and NIRAS attracted the interest of ORSTED – the largest Danish energy utility company – to invest in this REDD+ project in The Gambia with objective to address the drivers of change, rehabilitate degraded mangroves stands, and improve livelihood and economic and community development. To complement and validate the desk research, interaction with local partners and existing knowledge of the project based on previous work in Gambia, a feasibility field mission was organized in The Gambia in November and December 2020.

## 1.3 Objectives of the mission

The mission had as objective to provide the project developer with pertinent information needed to guide the formulation of project activities and orientate the implementation and monitoring strategies under carbon finance standards.

Specific objectives were:

- Have a better understanding of the project area and the baseline situation
- Conduct first round of local stakeholder consultation;
- Consolidate relationship with local institutions and project partners; and
- Secure exclusivity for the implementation of the project and offsetting of generated carbon credits.

## **1.4 Expected Results**

- i) The relevant information collected to enrich the project document through establishing baselines;
- ii) The needs and aspirations of stakeholders appraised in order to fine-tune the project strategy;
- iii) Information obtained on the procedure and administrative modalities for REDD+ development and implementation (national REDD+ procedures, land use rights, conservation policies; national laws and legislation, others...); and
- iv) Documentation on the REDD+ project exclusivity is legalized permitting implementation and offsetting of generated carbon credits.
- v) A validated functional and operational management structure of the project amongst the stakeholders
- vi) A concrete budget for project activities with possible co-financing contributions.

## **1.5 Tangible deliverables of the feasibility mission**

- 2. A signed agreement (collaboration agreement) between S2 Services, local partners and ORSTED indicating potential benefits of each party on the project;
- 3. Documents on the administrative procedures and modalities for REDD+ project development and implementing in The Gambia;
- 4. Media Reports (video clips, newspapers, etc.) on the local stakeholder consultation workshop;
- 5. Letter of exclusivity from the Gambian Government;
- 6. A mission report; and
- 7. Technical feasibility report.

## **1.6 Structure of the report**

This report is divided into 5 main sections: Section 1, the introduction, presenting the context, objectives, expected results, tangible deliverables of the field mission organized to validate this report; Section 2 gives the methodological framework for conducting the said mission; Section 3 is reserved for findings and orientation for project development and Section 4 indicate how initial estimation of emission reductions is made. Section 5 provides next steps necessary to get funding and start the implementation of the project. The Annexes contain much material, data and information that greatly compliments or buttress the different sections. These Annexes should be seen as integrated parts of the report. The table below present in a nutshell the content of each Annex.

| <b>Annex #</b> | <b>Title</b>                                                      | <b>What does it entail</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
|----------------|-------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>1</b>       | Endorsement and Exclusivity Letter                                | Scan copy of the letter                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| <b>2</b>       | Proceedings of the field visit                                    | Indicate all activities/actions carried out during the mission, with achieved results and total cost of the mission                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| <b>3</b>       | Matrix of Logical framework of objectives and results             | <p>This table present different project elements, with:</p> <ul style="list-style-type: none"> <li>• General objective of the project</li> <li>• Components and specific objectives</li> <li>• Expected result for each specific objective</li> </ul> <p>Then for each result the following elements are indicated:</p> <ul style="list-style-type: none"> <li>• Its definition</li> <li>• The baseline situation</li> <li>• The target to be achieved</li> <li>• The means to verify the achievement of the target</li> <li>• Actual assumption that are used to define the target</li> <li>• Potential risks that can jeopardize meeting the target</li> <li>• How the risk will be mitigated</li> </ul> |
| <b>4</b>       | Matrix for Activity Logframe                                      | <p>This matrix complements the “Matrix of Logical framework of objectives and results” and present for each activity</p> <ul style="list-style-type: none"> <li>• The lead and co-lead institutions responsible for its implementation</li> <li>• Define the tasks to be implemented by these institutions with methodology to be used</li> <li>• Define indicators for measuring performances</li> <li>• Define targets</li> <li>• Define risks associated to the implementation of the activity in terms of “high”, “medium” and “low”</li> <li>• Define risk mitigation measures</li> </ul>                                                                                                             |
| <b>5</b>       | Stakeholders analysis and Engagement strategy                     | <p>This table list all stakeholders involved in the project, and for each stakeholder indicate:</p> <ul style="list-style-type: none"> <li>• Its interest in the project</li> <li>• Its potential influence on the project (influence is described and indicated the level from “low” to “very high”</li> <li>• The impact of the project on the stakeholder and indicated the level from “low” to “very high”</li> <li>• How to engage the stakeholder during the design process of the project</li> <li>• Early ideas of how to engage the stakeholder during the project implementation</li> </ul>                                                                                                      |
| <b>6</b>       | GPS coordinates and map of sites visited during the field mission | GPS coordinates and map of sites visited during the field mission                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| <b>7</b>       | Attendance lists during field mission                             | Attendance lists of all meetings and consultations during field mission in Gambia                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |

## 2 Methodological Framework

### 2.1 Overview of mangroves sites and conditions in The Gambia

Gambia is situated on the Atlantic coast of West Africa (Lat 13°-17° N/ Long 13°- 17°W) and, apart from its coastline of about 80km, is entirely enclosed by Senegal. It occupies 10 690 km<sup>2</sup>, and with a population of 695 886 (1983), has a mean population density of 65 persons/km<sup>2</sup> being amongst the highest densely populated in West Africa. Physiographically the country is dominated by the estuary of the Gambia River which, seasonally, is weakly tidal almost as far as the eastern boundary. The river mouth is 4 km wide between Banjul on the south bank and Barra on the north bank, but the estuary widens a few kilometres inland to a maximum of 14 km. Thereafter the channel narrows progressively in passing upstream, but is still 1 km wide more than 200 km from the mouth. The River Gambia and the tributaries largely navigable are central to the Gambia's water resources. Running the entire length of the country the river provides vital socioeconomic, cultural, scientific, aesthetic and environmental values. The climate of the Gambia is tropical with distinct dry and wet season. The dry season is between November and May. The dry season weather in the Gambia is influenced by the north-easterly dry winds locally called *Hamattan* from the Sahara. Temperatures in the cool dry season vary between 70°F (21°C) and 80°F (27°C) with relative humidity between 30% and 60%. The wet season is in the summer months beginning June until October. Mean annual rainfall ranges between 1000mm in the southwest to less than 800mm in the northeast. Over 90% of the precipitation between occurs July and September (Twilley, 1985; Ecoutin et al. 2005). The country's geographic location combined with the extensive wetland systems result in a wide range of habitat types supporting diverse plant and animal species. Approximately 530 plant species, 108 species of mammals, and over 540 bird species (a third of these birds are Palearctic migrants) are known to exist in the Gambia.

**Location of mangroves.** An almost continuous belt of mangroves exists from the mouth of the Gambia River to about 160-200 kilometres inland ((Daget, 1960; UNEP, 2007; Ecoutin et al. 2005), representing the most pristine of the remaining natural habitats in the country (UNEP, 2007). UNEP (2007) puts the coverage of mangroves at 581km<sup>2</sup> which tends to decrease in the lower parts of the river and is better developed at the mouths of small tributaries further upstream. Mangrove stands, reaching to over 20 metres in height, are found between 100 and 160 kilometres upstream from the sea, near Tendaba, Elephant Island and Dan Kun Ku Island where average salinity of the water during the dry season is about 10 parts per thousand. Along the flat topography of the Gambia River valley, several mangrove formations exist, from the estuarine formations found near the capital Banjul to the tall fluvial formations found in the upstream extremes of their range.

**Biodiversity.** Seven of the eight species of mangrove to be found in West Africa are present in Gambia: *Acrostichum aureum*, *Avicennia germinans*, *Conocarpus erectus*, *Laguncularia racemosa*, *Rhizophora mangle*, *Rhizophora harrisonii* and *Rhizophora racemosa*. Watercourses that are affected by the daily tides are bordered by tall *Rhizophora racemosa*. Areas affected by the mean limits of the spring tides are populated by *Avicennia germinans*

(syn *A. Africana*) and *Laguncularia racemosa*. *Rhizophora harrisonii*. *Rhizophora mangle* occur at the boundary between the *R. racemosa* and *A. germinans* stands. *Rhizophora racemosa* appears to be the pioneer species and is later replaced by *A. germinans* until the raised soils become too dry to support vegetation during the dry season. *Rhizophora* spp. can reach heights of up to 20 metres (UNEP, 2007).

**Threats and drivers of change.** According to Twilley (1985) mangroves in Gambia can be classified as existing in a very dry life zone and are thus very susceptible to slight changes in hydrology. UNEP 2007 report further stated that mangroves in Gambia suffered a slight decrease in extent due to diebacks; most likely caused by drought, increase in soil salinity, illegal exploitation and conversion of tidal areas into shrimp and fish farms. The drought that affected Africa in the 1970s caused the deterioration of many mangroves, especially along the Bintang Bolon, the largest tributary of the Gambia River. It led to deeper tidal penetration and increased water and soil salinity, the main causes of the dieback. An important threat to mangroves in the Banjul area is the oyster harvest, which cuts the branches and roots where oysters anchor. The construction of access roads allows people to easily access the inner parts of the forests, applying further pressures on the ecosystem. In the coastal areas, sand mining for construction is another indirect cause of mangrove degradation (Said, 2007). Bao Balong Wetland Reserve is threatened by non-urbanized settlements, commercial fishing, grazing, rice growing, overgrazing by livestock, persistent droughts and salination of the soil (Ramsar, 2006b).

**Conservation and restoration efforts.** The Ramsar Convention came into force for Gambia on 16 January 1997. The country has one Ramsar site with mangrove stands: Bao Bolong Wetland Reserve, designated 16 September 1996, North Bank Division and covers an area of 200 square kilometres (13°50'N 015°90'W) (Ramsar, 2000). There are also several coastal and marine habitats of ecological importance including: Toll Point to Cape Creek (Camaloo Corner), Oyster Creek mangrove swamp, Tanji Bird Reserve, Tujereng lagoons, River Kakima Delta-kachuma forest, Dau Dula to Kartong coastal forest and Kartong Point at the mouth of the Allahein River (Department of Parks and Wildlife Management, 1998). Some mangrove swamp and lagoons may be protected in the proposed Kiangs National Park on the south bank of the Gambia River. 13°25'N/15°55'W. Some NGOs are involved in mangrove restoration work notably Sahel Concerns, KOMFFORA and WABSA.

## 2.2 Concept note preparation

A draft concept note was prepared from literature review and communicated to The Gambia Consortium for appraisal which was deliberated upon for month; but still had need for a ground work to ascertain the importance and feasibility of draft logical frame proposed by the negotiating partners in Cameroon.

## 2.3 Planning for the mission

A mission was then planned to The Gambia to have a better understanding of the situation of things and further formulate activities and implementation strategy that will meet project objectives.

## 2.4 Gambian field mission

The Gambian field mission was articulated around three interactive phases:

- Working & planning session with consortium members;
- Consultation of sectorial ministerial departments;
- Mangrove Site visits: consultation with mangrove dependent communities;
- Workshop with Key Stakeholders.
- Post workshop synthesis and consolidation

### 2.4.1 Working & planning session with consortium members

Aimed at promoting interactive discussions with consortium members, this strategy was used to obtain information from consortium and have an appraisal of their knowledge and actions in the project area. Day one was composed of general review of the project and objectives; identification and diagnosis of potential project sites. This gave the consortium an idea of what was expected from them. This also enabled us to judge what we had from literature and exchange (their interventions within the landscape) to know if they actually master the project area. The meeting was adjourned for the next day.

**Discussion on draft organogram:** A draft project organogram was formulated by the consultants and presented to The Consortium; which was criticized due to many loop holes in the context of The Gambia development policies and administrative set up. The consortium was then asked to go ahead and give a feasible proposal for the project.

**Site base approach for diagnosis of mangrove problem.** Day two was really intense with much energy tilted towards site diagnosis. A site base approach was used to understand the drivers of change and threats in the various mangrove sites of interest. During the sitting, site stratification was done, identifying mangroves in 5 Regions of The Gambia. It was on this basis that the site visit was planned. The choice of sites visited was based on the following criteria:

- Accessibility,
- Sites that capture all 5 project components (Conservation, Livelihood, Capacity building and institutional development and Mangrove Landscape restoration and
- Representativeness of elements from the site diagnosis

The proposal was deliberated upon the next day with the consultants and adopted for further interventions by other actors. The organogram was discussed during meetings with sectorial ministries and institutions and who all had their inputs taken into consideration. The organogram was further deliberated upon during the workshop, inputs made and validated during the consolidation meetings with the consortium and volunteers.

**DPSIR (drivers, pressures, state, impact and response model of intervention.** This model was used to diagnose the activities proposed by the consortium to better understand their feasibility in the project. All this gave us an understanding of the situation of things (situation analysis) and current and possible activities that could be developed in the project (best practices). The team undertook a regional diagnosis approach.

During the course of these meetings, the endorsement/exclusivity letter was drafted and deliberated upon and forwarded to the Minister of the Environment, Climate Change and Natural Resources for appraisal before our visit to his office.

#### **2.4.2 Consultation of sectorial ministerial departments**

The next step was to get the appraisal of sectorial ministries. This was the occasion to meet and discuss face to face with sectorial ministries on the goal of the object and its future. It was a strategy to get the views and readiness of these actors, a way to get their contributions and interest in the project (co-funding mechanism), also a strategy to understand administrative procedures and exigencies in developing a REDD+ project in The Gambia and another way to understand key actors to be included in the project. All ministries and institutions welcomed the project and indicated their interest and readiness to support the project in all forms possible. The Honorable Ministry of the Environment, Climate Change and Natural Resources particularly stressed the importance of an M&E component of the project to track progress and performance of the project.

#### **2.4.3 Mangrove Site visits: consultation with mangrove dependent communities**



A three day field visit (Field trip) to mangrove sites across of The Gambia was undertaken. This was marked by field discussions and field meetings using Participatory Rural Appraisal (PRA) tool. This consisted of individual, focused group and community meetings and interviews. We made use of the local knowledge and experience of the consortium to have a better understanding and to further develop best practices strategies for each activity. The site visits enabled us to come in contact with these activities and the actors involved. Their needs and aspirations were noted and recommendations were raised. This was useful to compare and fortify our diagnosis to understand the feasibility of activities in the project. During site visits

we visited various mangrove planted sites, activities of The Consortium Members, woodlots, bee hives, agroforestry complexes, eco-camps, eco-centers amongst others.

#### 2.4.4 Organization of the stakeholder's workshop



The workshop was planned to involve key stakeholders including sectorial ministries and institutions, representatives of CBOs, influential community members and the local population.

Purpose of the workshop was to examine, enrich and validate the draft project documents with key stakeholders notably:

- Situational and diagnostic analysis supporting the project
- The project logical framework and the project organisational structure (organogram)
- The concept of co-benefits and carbon credits

Expected outputs of the workshop were:

- Draft project documents enriched
- Situational and diagnostic analysis supporting the project validated
- The project logical framework and the project organisational structure (organogram) validated
- Concept of co-benefits and carbon credits understood by stakeholders

Workshop methodology

The major articulation of the workshop were:

- Official opening pronounced by a senior official of Parks & Wildlife
- Break-away group work
- Group report in plenary
- Closing

Synthesis, consolidation and reporting

This involved the consolidation of workshop findings with key volunteers

- Elements raised by stakeholders concerning the organogram/Activities were inserted to reflect a sustainable and feasible strategy for the implementation of the project
- Finalization of the project logical framework with activities that reflects best the need of mangrove dependent population as encouragement and support for the realization of project.
- Drafting a realistic budget needed to implement these activities estimated for a 10 year period

## **2.5 Reporting phase**

The phase was carried out in Cameroon where various reports were prepared including mission report and feasibility report.

### 3 Findings and Orientations of the Project

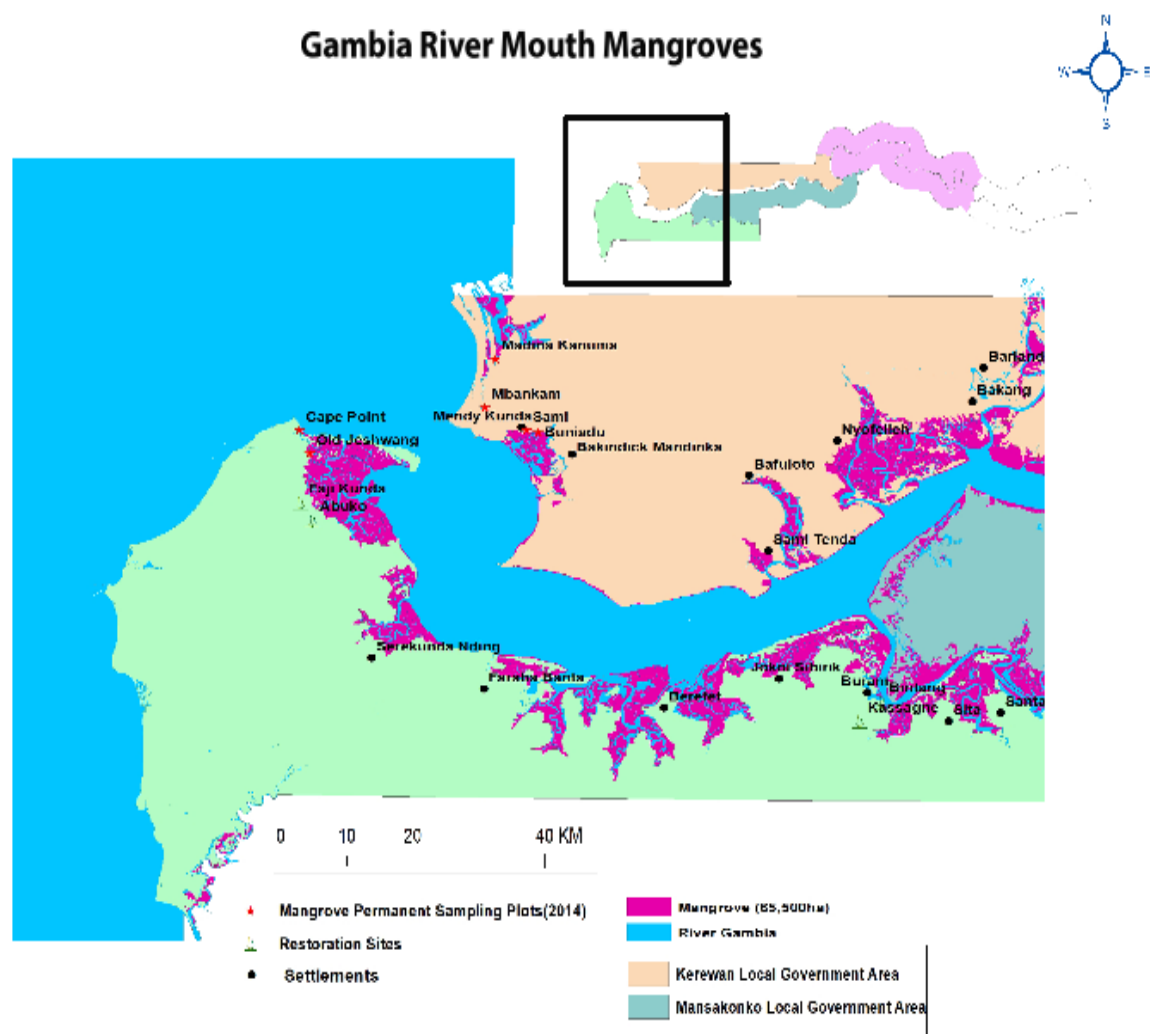
#### 3.1 Situational analysis of mangroves in The Gambia

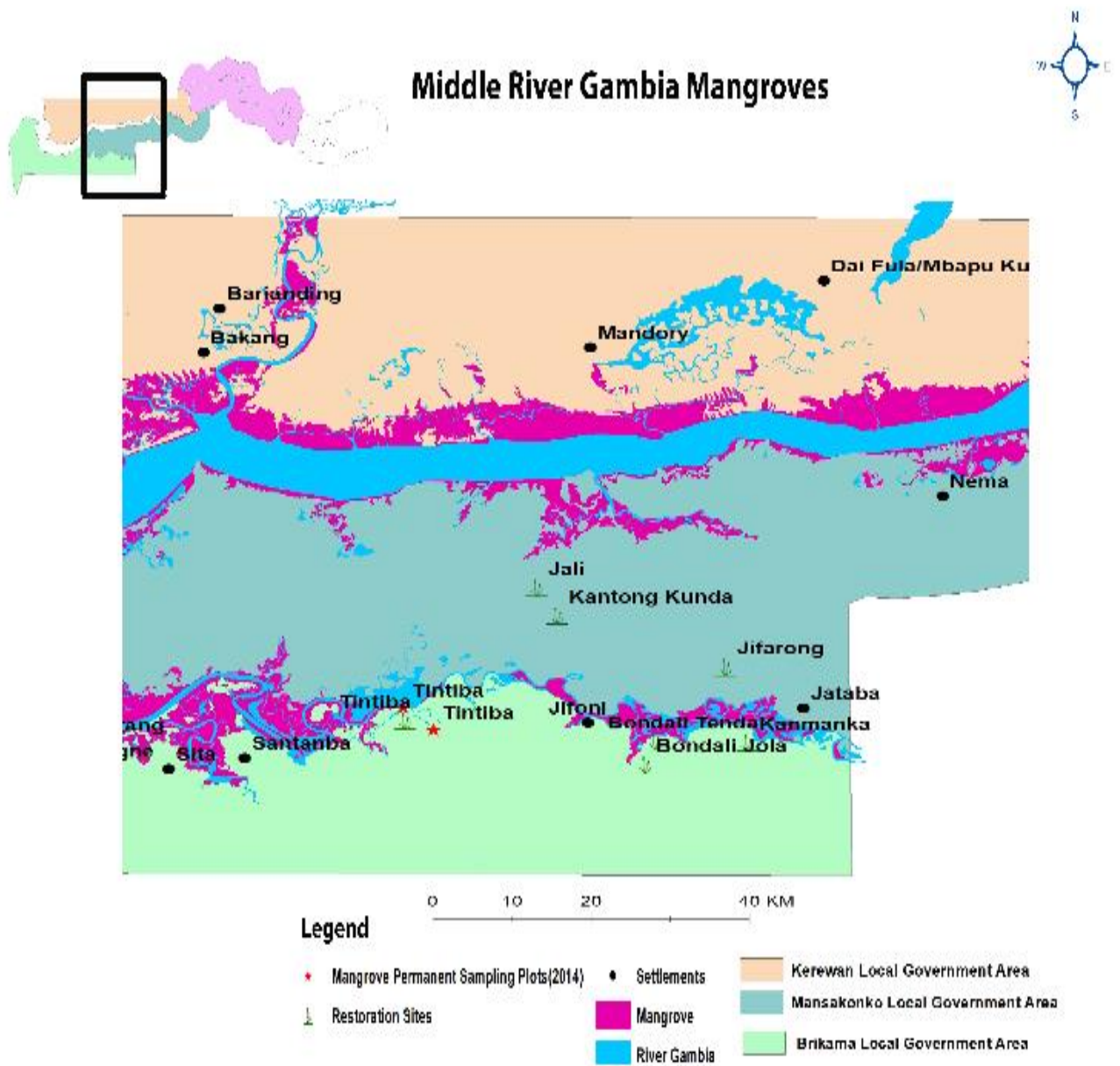
##### 3.1.1 Current status and threat of mangroves

Information on current status and threats of mangrove of The Gambia are provide in Figures 1-2 and Tables 1-2). Mangroves appear in all the 5 administrative regions of Gambia covering a total surface area of 65 000 ha (5.6% of total country land surface) with a population of 298 231 people (population density 5.3 pers /ha or 532.6 pers/km<sup>2</sup> leaving in 54 mangrove covered communities within less than 1.5km from the mangrove. About 7.4% of the mangrove areas are degraded with 0.8% planted. Current drivers/pressures/threats include: sea level rise, agricultural development (dykes & dams-salt extraction dams), poverty, Population expansion, urbanization and industrial development livestock breeding (cattle, sheep, goat...).

#### Mangrove sites

Figure 1: Maps showing the distribution of mangroves in Gambia





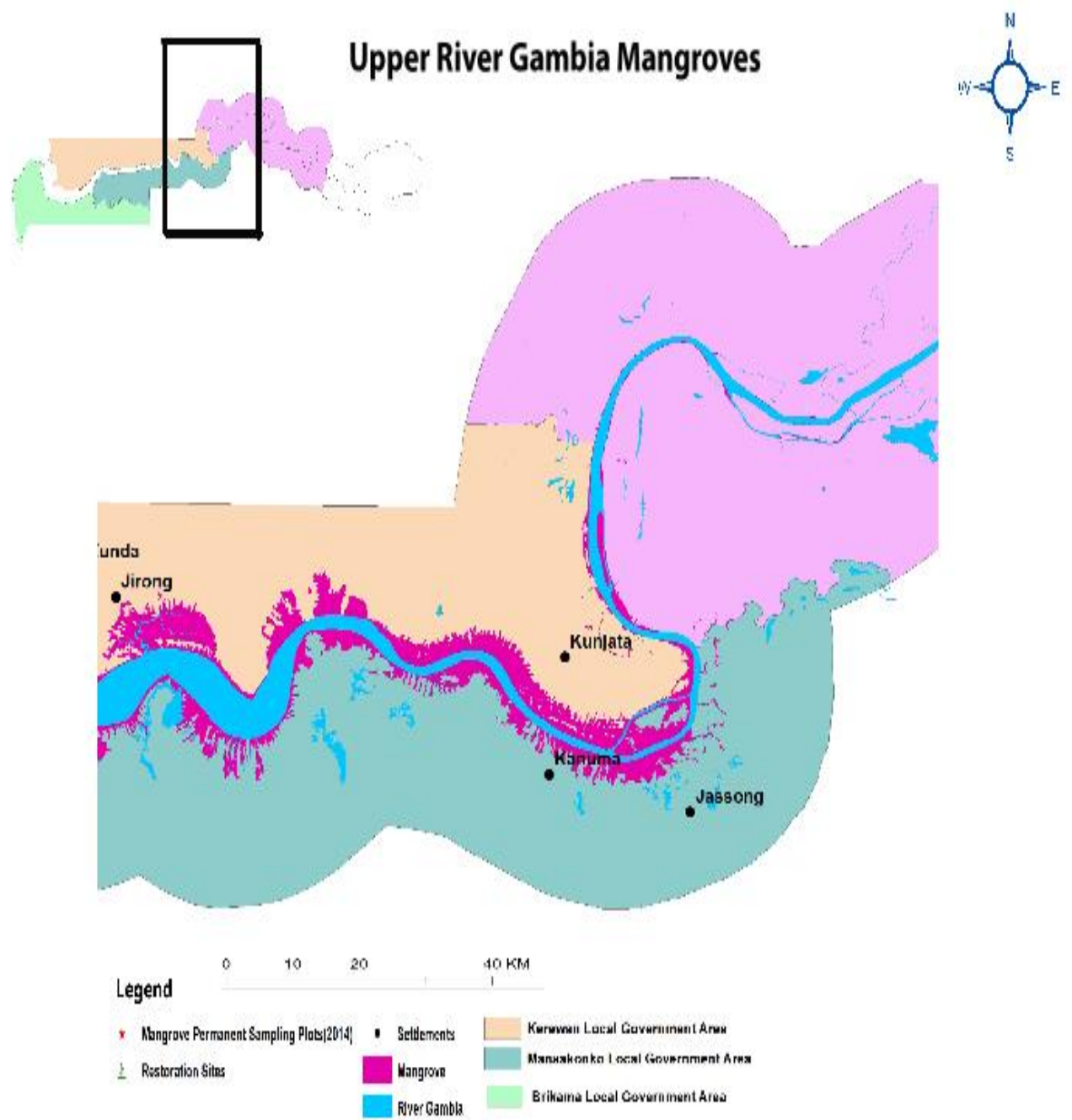


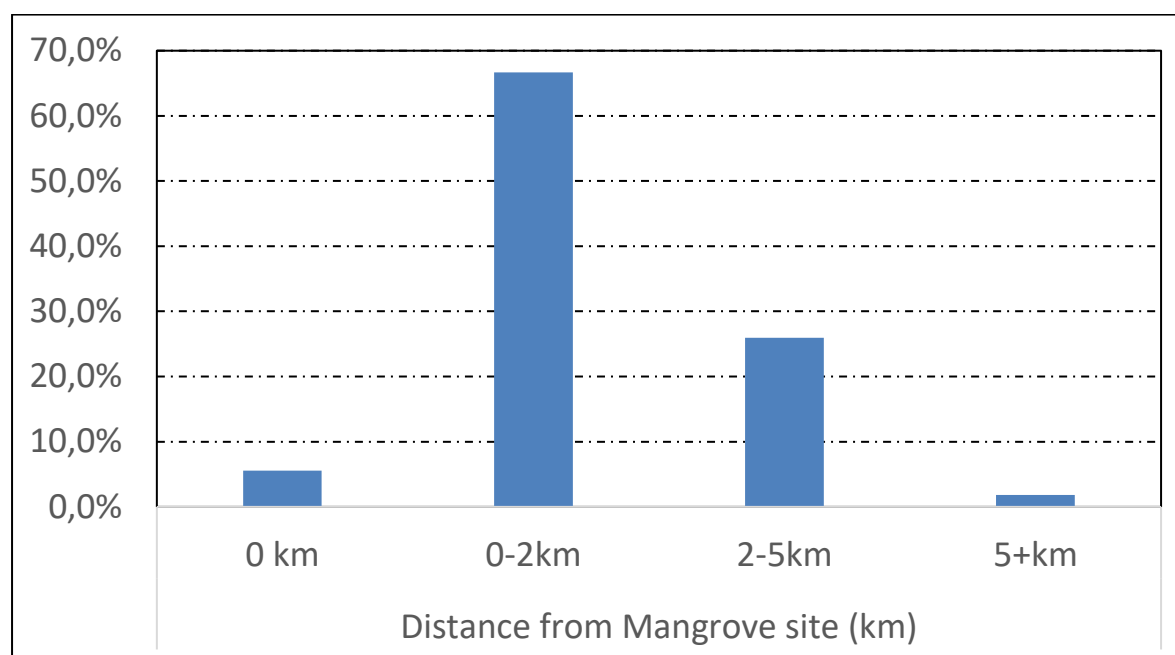
**Table 1: Current extent, status, planting efforts and drivers of mangrove loss in The Gambia (data based on perception of actors)**

| Region                      | Number of mangrove sites | Distance from Mangrove site (km) | Total surface Area (ha) | Degraded Area (ha) | %          | Planted Area (ha) | %           | Drivers/Pressures                                                                                           |
|-----------------------------|--------------------------|----------------------------------|-------------------------|--------------------|------------|-------------------|-------------|-------------------------------------------------------------------------------------------------------------|
| West Coast Region (WCR)     | 23                       | 0.2                              | 10000                   | 1000               | 10.0       | 500               | 5.00        | Sea level rise, agricultural development (dykes & dams-salt extraction dams), poverty, Population expansion |
| Greater Banjul Area (GBA)   | 3                        | 0.02                             | 3000                    | 60                 | 2.0        | 10                | 0.33        | Sea level rise, urbanization and industrial development                                                     |
| Low River Region (LRR)      | 9                        |                                  | 15000                   | 2000               | 13.3       | 7000              | 46.67       | Agriculture, poverty                                                                                        |
| North Bank Region (NBR)     | 16                       | 1                                | 20000                   | 1000               | 5.0        | 450               | 2.25        | Population density, agriculture, sea level rise, firewood collection                                        |
| Central River Region (CRR)  | 3                        | 0.05                             | 8000                    | 80                 | 1.0        | 450               | 5.63        | Sea level rise, agriculture and livestock breeding (cattle, sheep, goat...)                                 |
| <b>All mangrove regions</b> | <b>54</b>                | <b>1.27</b>                      | <b>56000</b>            | <b>4140</b>        | <b>7.4</b> | <b>450</b>        | <b>0.80</b> |                                                                                                             |

**Table 2: Spatio-demographic characteristics of mangrove sites in Gambia**

| Region                      | Mangrove sites dependent population |                | Mangrove sites |                | Average distance from Mangrove site (km) | Distribution of sites within distance range from mangrove |              |               |             |               |
|-----------------------------|-------------------------------------|----------------|----------------|----------------|------------------------------------------|-----------------------------------------------------------|--------------|---------------|-------------|---------------|
|                             | Population size                     | As % total     | Number         | As % total     |                                          | 0 km                                                      | 0-2km        | 2-5km         | 5+km        | Total         |
| West Coast Region (WCR)     | 163 981                             | 55.0%          | 23             | 42.6%          | 0.57                                     | 4.3%                                                      | 78.3%        | 17.4%         | 0.0%        | 100.0%        |
| Greater Banjul Area (GBA)   | 70 150                              | 23.5%          | 3              | 5.6%           | 0.01                                     | 66.7%                                                     | 33.3%        | 0.0%          | 0.0%        | 100.0%        |
| Low River Region (LRR)      | 5 600                               | 1.9%           | 9              | 16.7%          | 2.60                                     | 0.0%                                                      | 44.4%        | 44.4%         | 11.1%       | 100.0%        |
| North Bank Region (NBR)     | 28 500                              | 9.6%           | 16             | 29.6%          | 1.10                                     | 0.0%                                                      | 62.5%        | 37.5%         | 0.0%        | 100.0%        |
| Central River Region (CRR)  | 30 000                              | 10.1%          | 3              | 5.6%           | 0.05                                     | 0.0%                                                      | 100.0%       | 0.0%          | 0.0%        | 100.0%        |
| <b>All mangrove regions</b> | <b>298 231</b>                      | <b>100.0 %</b> | <b>54</b>      | <b>100.0 %</b> | <b>1.00</b>                              | <b>5.6%</b>                                               | <b>66.7%</b> | <b>25.9 %</b> | <b>1.9%</b> | <b>100.0%</b> |

**Figure 2: Distribution of sites within distance range from mangrove**



### **3.1.2 Current intervention schemes in the mangrove area in Gambia**

Many group of stakeholders have intervened in undertaking various activities to address the threats and improve livelihoods of the population living around the mangrove areas. They ranged from conservation efforts of government facilitated by NGOs and CBOs whose intervention stemmed from the 1990s. Details are presented in Tables 3-4 together with SWOT analysis of their interventions.

**Table 3: Level of intervention in mangrove covered sites in Gambia**

| <b>Region</b>             | <b>Conservation status</b>                                                                                                             | <b>Name of site and mangrove coverage (ha/%) and intervention schemes</b>                                                                                                                  | <b>Actor (s)</b>                                                                                                                                                                                                                                                                                                           | <b>Current Mitigation Responses</b>                                                                                                                                                                                                                                                                                                                       | <b>Challenges</b>                                                                                                                                                                               | <b>Start date</b> |
|---------------------------|----------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------|
| West Coast Region (WCR)   | i) Community Conserved area ii) Community Conserved area iii) Forest Reserve iv) National Park, RAMSAR Site, Important Bird Area (IBA) | i) Bintang Bolong (3021 ha) ii) Bolong Felong: 320 ha, 2% is Mangroves; has a community conserved area iii) Tangui Bar Reserve iv) Allahein River v) Tanbi Wetland National Park           | SWC, WABSA, KOMFFORA, Others: MaKosouda Wildlife Trust, KETCHAN Mangrove Conservation and Restoration, GEPA (Goudoum Environment and Rural Association), Environmental Development Organ, Freedom Fund Hunger Campaign (FFHC), All Gambian Forestry Platform, Katou Responsible Tourism (KRT), Koudou Conservation Society | Mangrove planting , Mangrove planting, population sensitization, ecotourism (creek tours, bird watch), tree planting, Mangrove restoration, Sustainable Forest Management Training Programmes, Capacity Building, Tree Planting, Exchange visits                                                                                                          | Finance (2015), Encroachment in mangrove areas, logging for firewood, limited infrastructure, capacity building and institutional development (1998), Finance, infrastructure, equipment (1998) | 2015              |
| Greater Banjul Area (GBA) | National Park, RAMSAR Site, IBA                                                                                                        | Tanbi Wetland National Park                                                                                                                                                                | SWC, WABSA, Other CBOs: anjubl Future Proof, Nakouta, Coconut Project,                                                                                                                                                                                                                                                     | Mangrove planting, sensitization, promote the management of NP, Mangrove planting, establishment of school environmental clubs, IBA monitoring                                                                                                                                                                                                            | Finance and limited capacity                                                                                                                                                                    | 1994-2001         |
| Low River Region (LRR)    | Community Reserve Area, Community Conserve Area, National Park                                                                         | Bamako: 359 ha, can be expanded, Bee keeping (50 hives presently), Sustainable forest management trainings, Tree nursery establishment, training on NTFPs enterprises (production of soap, | SWC, WABSA, KOMFFORA                                                                                                                                                                                                                                                                                                       | Agroforestry, Education and training (Bio-education Centre), Establishment of Sanctuaries (Dumbuto Wildlife sanctuary, woodlots establishment, mangrove planting, wildlife management, community development; WABSA school club establishment (03), Bio-sanctuary establishment for birds and schools, IBA (monitoring, bird count, pleasure; Bee keeping |                                                                                                                                                                                                 | 1994-2013         |

| Region                     | Conservation status                                                 | Name of site and mangrove coverage (ha/%) and intervention schemes                                                               | Actor (s)                                                                                                                             | Current Mitigation Responses                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | Challenges | Start date |
|----------------------------|---------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------|------------|
|                            |                                                                     | cream, lip signs), Barakouda; Kewan West National Park (KWNP): 23621 ha; app 300 hha is mangrove                                 |                                                                                                                                       | (50 hives presently), Sustainable forest management trainings, Tree nursery establishment, training on NTFPs enterprises (production of soap, cream, lip signs)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |            |            |
| North Bank Region (NBR)    | National Park; Community Reserve Area; National Park; National Park | Jokuda: 19293, app 400 ha is mangrove; Pakao; Bao Bolong: 29658 ha, app 70 ha is mangrove; Niumi: 7758 ha, app 40 ha is mangrove | SWC, WABSA, KOMFFORA                                                                                                                  | Horticulture, woodlots establishment, tree nursery establishment and monitoring, sustainable land management, agroforestry, bee hives production and distribution to farmers to support cross pollination, support the management of Jokadu NP, salt tolerant rice farming, Environmental Education episodes; Mangrove planting, tree plantations, bird sanctuary establishment (5), Constructed IA visitor centre, tree nursery establishment, establishment bof photo hight platform for nature viewing, established a cashew processing factory; promote sustainable Oyster harvesting, training on oyster preservation, support oyster harvesters with canoes |            | 2001-2007  |
| Central River Region (CRR) | Community Conserve Area, National Park                              | Chiame, River Gambia Area                                                                                                        | WABSA, KOMFFORA, Other CBOs: CIMMFORA (Central River Forest Association), FALRAP (Operative livestock management and disease control) | Establishment of environmental clubs, train Eco guides, consultancy in mangrove distribution; Establishment of tree nurseries, organise and train regional associations on forest management                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |            | 2000-2016  |

**Table 4: SWOT Analysis of Existing and Potential Livelihood Activities**

| Activity                                                                                                                                                                           | Strength                                                                                                                                                                                                                                    | Weakness                                                                                             | Opportunity                                                                       | Threats                                          | Actor (s) | Start year | Intervention mangrove site(s) | Extent of Activities                                                                                                                          |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|--------------------------------------------------|-----------|------------|-------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------|
| Bee Keeping                                                                                                                                                                        | Successful, available market, easy to install and manage, enhance pollination in farms, easy to transform and store, can be replicated at all sites                                                                                         | limited funds to expand, low capacities, lack of marketing strategy                                  | Technical know-how of the process, high interest in activity, value addition      | Bush fires, deforestation, diseases, bee hunting | SWC       | 2018       | Niumi NP                      | 50 bee hives installed                                                                                                                        |
|                                                                                                                                                                                    |                                                                                                                                                                                                                                             |                                                                                                      |                                                                                   |                                                  | KOMFFORA  | 2014       | Present in 15 communities     | 150 bee hives installed                                                                                                                       |
|                                                                                                                                                                                    |                                                                                                                                                                                                                                             |                                                                                                      |                                                                                   |                                                  | WABSA     | 2015       | Niumi NP                      | 30 bee hives installed                                                                                                                        |
| Agroforestry:<br>Species of interest: Grafted orange, grafted mango, cashew nut, Malaina, oranges, pears, mangoes.<br><br>This also includes: Vegetable gardening and horticulture | Disease, sedimentation and erosion control; provides NTFP, alternative firewood, windbreak, increase soil fertility, draws attention for mangroves for firewood, agricultural extension capacity, technical knowhow and follow up available | Success depends on farming technique used (fencing, watering, ..), potential to cultivate year round | Enhance carbon stocks, alternative timber products, income generating, employment | Diseases, bush fires, encroachment               | SWC       | 2018       | West Coast Region             | Integrated species like: oranges, Moringa, mango in farms, planting at 10m + bee hives installed in farms                                     |
|                                                                                                                                                                                    |                                                                                                                                                                                                                                             |                                                                                                      |                                                                                   |                                                  | KOMFFORA  | 2015       | Manitenda and Ohmoutor        | Forest trees: Mahogany, Baobab, and livestock. Each farmer got a sheep, farmland fenced and a vegetable garden established                    |
|                                                                                                                                                                                    |                                                                                                                                                                                                                                             |                                                                                                      |                                                                                   |                                                  | WABSA     | 1998       | Meme village                  | Farming and conservation: Fenced 300m <sup>2</sup> and planted cashew, mango, orange in the farmland of 75 women; women tasked to water trees |
| Community Based Ecotourism                                                                                                                                                         | Job creation, promote conservation resulting to                                                                                                                                                                                             | Absence of tourist infrastructure,                                                                   | Community revenue, employment,                                                    | Poaching, ecosystem degradation                  | SWC       | 2014       | Dumbuto                       | High ecotourism potential, Interest manifested                                                                                                |

| Activity                                  | Strength                                                                                                                                                                                                      | Weakness                                                           | Opportunity                                                                                                                                   | Threats                                                         | Actor (s) | Start year | Intervention mangrove site(s)              | Extent of Activities                                                                                                         |
|-------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------|-----------|------------|--------------------------------------------|------------------------------------------------------------------------------------------------------------------------------|
|                                           | carbon stock enhancement                                                                                                                                                                                      | lack of trained eco-guides                                         |                                                                                                                                               |                                                                 | WABSA     | 1995       | Brufort, Cifor, Kartong, Marakisa          | Present in 6 community protected areas: Tourist pay 1 dollar to visit, 60% goes to the community and 40% to WABSA management |
|                                           |                                                                                                                                                                                                               |                                                                    |                                                                                                                                               |                                                                 | KOMFFORA  | 2014       | Katouta, Tomanon Penja, Jankonui, Ormouto, | High ecotourism potential, Interest manifested                                                                               |
| Sustainable Oyster harvesting and farming | Lots of oysters available in mangrove zones, ability to collaborate with wildlife technicians in harvesting and farming, expertise available, exchange visits with institutions in Senegal, community by-laws | Inadequate trainings and trainers in the country                   | Apply to community areas, control extraction periods and implement community by-laws, improve harvesting techniques, encourage oyster farming | Unsustainable harvesting prevails, mangrove ecosystem pollution | WABSA     |            |                                            | Research on oysters                                                                                                          |
|                                           |                                                                                                                                                                                                               |                                                                    |                                                                                                                                               |                                                                 | KOMFFORA  |            | Kanforta, Jarkwe cybring                   | Oyster harvesting, give material and technical support to communities                                                        |
| Promote NTFP enterprises                  | Income generating, easy to develop and manage facility, job creation, promoting African products                                                                                                              | Limited raw material, low capacities, limited processing equipment | The opportunity is to strengthen the weakness                                                                                                 |                                                                 | KOMFFORA  | 2015       | Kafta, Jakwe, kalagi, Someta               | Soap from wax, lip sign from wax, creams, juice from fruits                                                                  |

| Activity                                                                         | Strength                                                                                                               | Weakness                                                       | Opportunity                                                                              | Threats                 | Actor (s)                         | Start year | Intervention mangrove site(s) | Extent of Activities                     |
|----------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------|------------------------------------------------------------------------------------------|-------------------------|-----------------------------------|------------|-------------------------------|------------------------------------------|
| Wildlife Farming                                                                 | Available land (sanctuaries established), interest and motivation on activity, potential communities to be accompanied | Need to fence sanctuaries, need of infrastructural development | Employment, revenue, alternative proteins, reduce pressure on wildlife, address poaching | Encroachment, diseases, | The Consortium manifests interest |            |                               | Potential activity to be developed       |
| Marine culture (Integrated poultry and fish farming) and Fresh Water aquaculture | High potentials                                                                                                        | Need for feeds and infrastructure                              | Alternative protein food, revenue, creation, potential to replicate                      | Theft, disease          | WABSA                             | 2013       |                               | Have established 3 10mx5m Marine culture |

## 3.2 Orientations for Mangrove REDD+ Project formulation

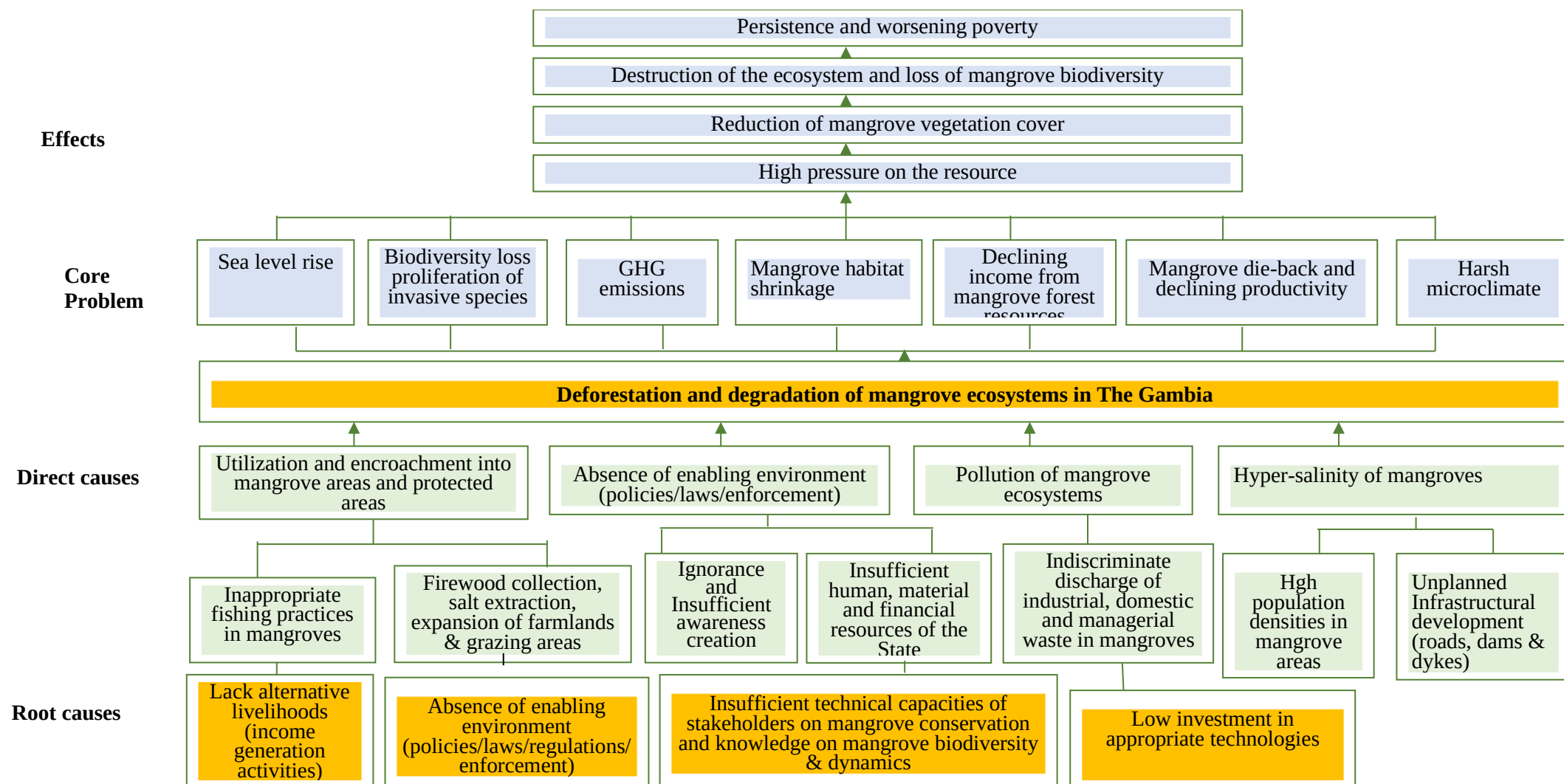
### 3.2.1 Problem analysis

The root and direct causes of mangrove degradation and loss as well as their effects are presented in Table 5 and Figure 3 in the problem tree model. Identified root causes are: lack of alternative livelihoods (income generation activities), absence of enabling environment (policies/laws/regulations/enforcement), insufficient technical capacities of stakeholders on mangrove conservation and knowledge on mangrove biodiversity & dynamics and low investment in appropriate technologies. These exert pressures on mangroves (encroachments, resource extraction, etc.). Their major effects are: mangrove die-back and declining productivity, mangrove habitat shrinkage, mangrove biodiversity loss and proliferation of invasive species, sea level rise, GHG emissions and declining income from mangrove forest resources.

**Table 5: Matrix of problems and situation of The Gambian mangroves**

|                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
|---------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Effects</b>      | <ol style="list-style-type: none"> <li>1. Mangrove die-back and declining productivity</li> <li>2. Mangrove habitat shrinkage</li> <li>3. Mangrove biodiversity loss and proliferation of invasive species</li> <li>4. Sea level rise</li> <li>5. GHG emissions</li> <li>6. Declining income from mangrove forest resources</li> </ol>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| <b>Core problem</b> | <b>Deforestation and degradation of mangrove forest resources</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| <b>Causes</b>       | <ol style="list-style-type: none"> <li>1. Encroachment into mangrove areas and protected areas,</li> <li>2. Inter-sectoral conflicts on the use of mangrove forest resources/Land use planning</li> <li>3. Hyper-salinity of mangrove ecosystems</li> <li>4. Pollution of mangrove ecosystems</li> <li>5. Salt extraction,</li> <li>6. Inappropriate fishing practices in mangroves: unsustainable harvesting of fisheries resources (oysters),</li> <li>7. Firewood collection (High dependence on energy biomass)</li> <li>8. Encroachment by search for grazing areas</li> <li>9. Weak governance</li> <li>10. Inadequate/insufficient funding for mangrove forest management</li> <li>11. Insufficient awareness</li> <li>12. Insufficient knowledge of the structure, dynamics of the mangrove forest resources</li> <li>13. Over expansion of farmlands</li> </ol> |
| <b>Root causes</b>  | <ol style="list-style-type: none"> <li>1. Socio-economic drivers -poverty, unemployment, population pressure</li> <li>2. Un planned Infrastructural development (roads, dams &amp; dykes)</li> <li>3. Lack alternative livelihoods</li> <li>4. Absence of enabling environment (policies/laws/enforcement)</li> <li>5. Weak enforcement of laws, policies and regulations</li> <li>6. Low investment in appropriate technologies</li> <li>7. Insufficient technical capacities of stakeholders on mangrove conservation</li> </ol>                                                                                                                                                                                                                                                                                                                                       |

**Figure 3: The problem tree of situation of mangroves of The Gambia**



### 3.2.2 Stakeholders analysis

Table 6 shows the various state departments linked to mangroves especially departments with ministry in-charge of environment, parks & wildlife, forestry, agriculture, local government and tourisms.

**Table 6:** Sectorial Ministries and departments

| Ministry/ Agency                                                         | Department                                         | Director                          |
|--------------------------------------------------------------------------|----------------------------------------------------|-----------------------------------|
| Ministry of the Environment, Climate Change and Natural Resources        | Department of Parks and Wildlife Management (DPWM) | Director of the DPWM              |
|                                                                          |                                                    | Director of Forestry              |
| Ministry of Agriculture and the National Agricultural Research Institute | Department of Livestock Management                 | Director of Livestock Management  |
|                                                                          | Department of Agriculture                          | Director of Agriculture           |
| The National Environmental Agency (NEA)                                  |                                                    | Director NEA                      |
| Ministry of Tourism                                                      | Department of Tourism                              | Director of Tourism               |
| Ministry of Fisheries and Water Resources                                | Department of Fisheries and Water Resources        | Director of Fisheries             |
|                                                                          |                                                    | Director of Water Resources       |
| Ministry of Local Government                                             | Department of Community Development                | Director of Community Development |
| Ministry of the Environment, Climate Change and Natural Resources        | Climate Change Secretariat                         | Climate Change Focal Point        |

Project stakeholders in terms of the impact on the project and their influence (Figure 4), they can be classified to range from “Very vulnerable group” with very high impact but very low influence notably salt extractors, oyster collectors, fishermen, fisher women and fish smokers, farmers (rice cultivators, vegetable farmers and others; to “Very high defender group” with very high impact and high influence including Ministry of Environment, Climate Change and Natural Resources (MECCNR), Department of Parks and Wildlife Management and Biodiversity Conservation (DPWM), Ministry of Local Government (MINLG), Village Head (Alkalo), Women and Community Based Organizations (CBOs) and Non-governmental Organizations (NGOs). Apathetic/indifferent group with low impact and influence include the Police Department and headsmen (cattle rarer) no identified group in the promoter group with low impact but very high influence. Other stakeholders fall within these extreme groups.

### 3.2.3 Stakeholders engagement strategies

The engagement strategies for involvement of various stakeholders in the project are presented exhaustively at the annexes. The give the framework of consultation of stakeholders are different phases of project development on matters that affect them.

**Figure 4: Project stakeholders mapping (adapted from Forkam et al. 2020)**

Impact of the Project on Stakeholder

|           |                                                                                                                                                                                                                                                                |                                                                                                                                                                                                                                                                                         |                                                                                                                                                                                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
|-----------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Very High | <ul style="list-style-type: none"> <li>• Salt extractors</li> <li>• Oyster collectors</li> <li>• Fishermen, fisher women and fish smokers</li> <li>• Farmers (Rice cultivators, Vegetable farmers and others)</li> </ul> <p><b>(Very vulnerable group)</b></p> | <ul style="list-style-type: none"> <li>• Municipalities</li> </ul>                                                                                                                                                                                                                      | <ul style="list-style-type: none"> <li>• Department of Forestry (DoF)</li> </ul>                                                                                                 | <ul style="list-style-type: none"> <li>• Ministry of Environment, Climate Change and Natural Resources (MECCNR)</li> <li>• Department of Parks and Wildlife Management and Biodiversity Conservation (DPWM)</li> <li>• Ministry of Local Government (MINLG)</li> <li>• Village Head (Alkalo)</li> <li>• Women</li> <li>• Community Based Organizations (CBOs) and Non-governmental Organizations (NGOs)</li> </ul> <p><b>(Very high defender group)</b></p> |
| High      |                                                                                                                                                                                                                                                                | <ul style="list-style-type: none"> <li>• The Regional Governor (RG)</li> <li>• District Chief (DC)</li> </ul>                                                                                                                                                                           | <ul style="list-style-type: none"> <li>• Ministry of Tourism (MINT)</li> <li>• Member of Parliament (MP)</li> <li>• Ward Counsellor (AC)</li> <li>• Vulnerable Groups</li> </ul> |                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| Medium    | <ul style="list-style-type: none"> <li>• University of The Gambia</li> <li>• The Gambia Forestry School</li> <li>• Universities and institutions in Cameroon and Ghana</li> </ul>                                                                              | <ul style="list-style-type: none"> <li>• National Environmental Agency (NEA)</li> <li>• School</li> <li>• Bio-climate Training Centre</li> <li>• KOMFFORA Training Centre for NTFPs Enterprises and Sustainable Environmental Management</li> <li>• Agro-biodiversity Centre</li> </ul> |                                                                                                                                                                                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| Low       | <ul style="list-style-type: none"> <li>• The Police Department</li> <li>• Headsmen (cattle rarer)</li> </ul> <p><b>(Apathetic/indifferent group)</b></p>                                                                                                       |                                                                                                                                                                                                                                                                                         |                                                                                                                                                                                  | <p><b>(Very high promoter group)</b></p>                                                                                                                                                                                                                                                                                                                                                                                                                    |
|           | Low                                                                                                                                                                                                                                                            | Medium                                                                                                                                                                                                                                                                                  | High                                                                                                                                                                             | Very high                                                                                                                                                                                                                                                                                                                                                                                                                                                   |

**Influence of Project on Stakeholder**

### 3.3 Project theory of change (TOC)

The project will have as an overall strategy to implement concrete climate smart actions/activities that address mangrove degradation & loss and create value for mangrove dependent communities with results/outputs that address direct causes of mangrove degradation & loss while their outcomes will address root causes with overall impacts restored mangroves with enhanced carbon capture & storage potentials reducing GHG emissions (see Figure 5).

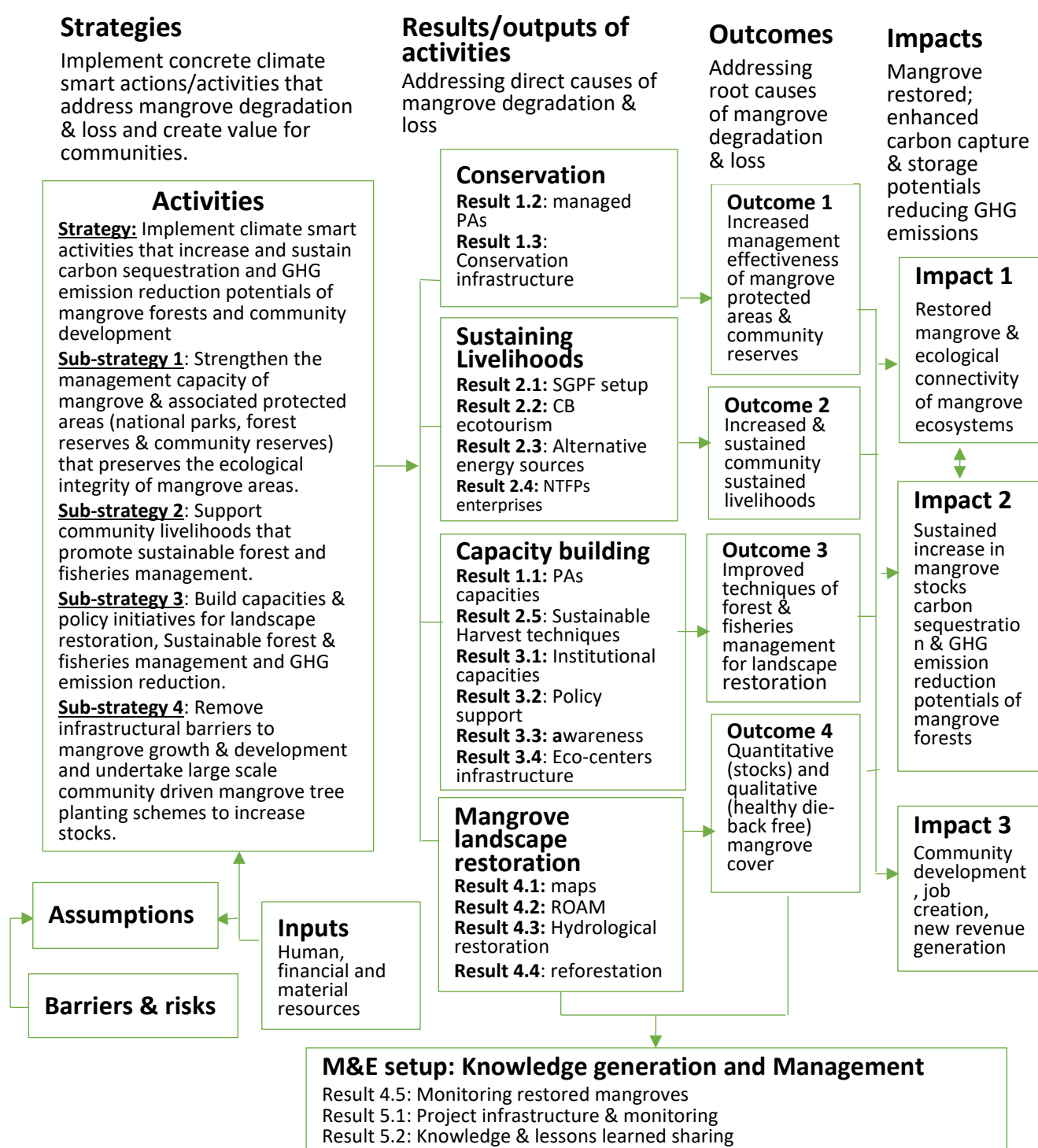


Figure 5: The Gambia REDD+ Project Theory of Change

### 3.4 Project logical framework

Unlike the Theory of Change (ToC), The Project Logical Framework (Logframe) (Table 7) giving the logic vertical logic of arrangement of project elements activities to produce outputs, outputs leading to outcomes and outcomes attaining the set objectives and each element subjected to horizontal logic of defined performance assessment indicators, their source of verification, assumptions, risk and their mitigation measures (see details presented at the annexes 4 and 5). The project will have as an overall objective:

***“Enhance Resilience of Vulnerable Coastal Areas and Communities to Support Conservation, Landscape Restoration and Sustainable Use of local resources for Biodiversity Conservation, Sustainable Livelihoods and Emission Reductions in Gambia”***

**Specific objectives are:**

- Conserve and expand existing protected areas and establish new ones to improve the management of natural resources, create 5 new PAs (component: Conservation)
- Improve community livelihood and natural resource management (Component Livelihood, community development and natural resources management)
- Strengthen capacity of stakeholders and institutions to implement climate smart actions (component Capacity building and institutional development)
- Restoration of degraded mangrove forest landscape of The Gambia (Component Mangrove landscape Restoration)
- Project effectively managed and monitored in a cost-effective Managed (Component Project management).

These components are arranged in the logically achievable manner, results with their associated activities.

**Table 7: Project Log-frame of objectives, results and activities.**

| Objectives                                                                                                                               | Results/Outcomes                                                                                                    | Activities                                                                                                                                                                                                                                                           |
|------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Component 1: Strengthening the Conservation capacity of mangrove protected areas (national parks, ICCA & Sanctuaries)                    |                                                                                                                     |                                                                                                                                                                                                                                                                      |
| 1. Conserve and expand existing protected areas and establish new ones to improve the management of natural resources , create 5 new PAs | Result 1.1: Increased operational capacities of existing PAs with at least two new ones created and managed by 2030 | 1.1.1. Materialize boundaries protected areas and install sign boards at PSP and planting sites                                                                                                                                                                      |
|                                                                                                                                          |                                                                                                                     | 1.1.2. Conduct frequent field missions in the project area                                                                                                                                                                                                           |
|                                                                                                                                          |                                                                                                                     | 1.1.3. Support the formulation and implementation of co-management plans for Protected areas                                                                                                                                                                         |
|                                                                                                                                          |                                                                                                                     | 1.1.4.Enhancement of the capacity of personnel of protected areas on the use of new information and communication technologies                                                                                                                                       |
|                                                                                                                                          | Result: 1.2. Infrastructure for conservation and hospitality is improved                                            | 1.2.1. Construction and maintenance of control posts and watchtowers                                                                                                                                                                                                 |
|                                                                                                                                          | Result1.3: Natural resources of the parks are best managed                                                          | 1.3.1. Conduct wildlife inventories and other natural resources studies; 1.3.2. Monitoring of exotic species (elephants, manatees, migrant birds...); 1.3.4. Mitigate the impact of mangrove forest exploitation, fishing, rice cultivation and grazing in the parks |
| Component 2: Improve community livelihood, community development and natural resource management                                         |                                                                                                                     |                                                                                                                                                                                                                                                                      |
| 2: Improve community livelihood and natural resource management                                                                          | Result 2.1. A Small Grant Project Fund (SGPF) is put in place to support restoration, research and livelihood       | 2.1.1. Provide small grants projects project funds to boost project activities by other organization                                                                                                                                                                 |
|                                                                                                                                          | Result 2.2. Community-based ecotourism is promoted and enhanced                                                     | 2.2.1. Design a sustainable community-based ecotourism promotion plan                                                                                                                                                                                                |
|                                                                                                                                          |                                                                                                                     | 2.2.2. Design and build basic infrastructure and promote community-based ecotourism                                                                                                                                                                                  |

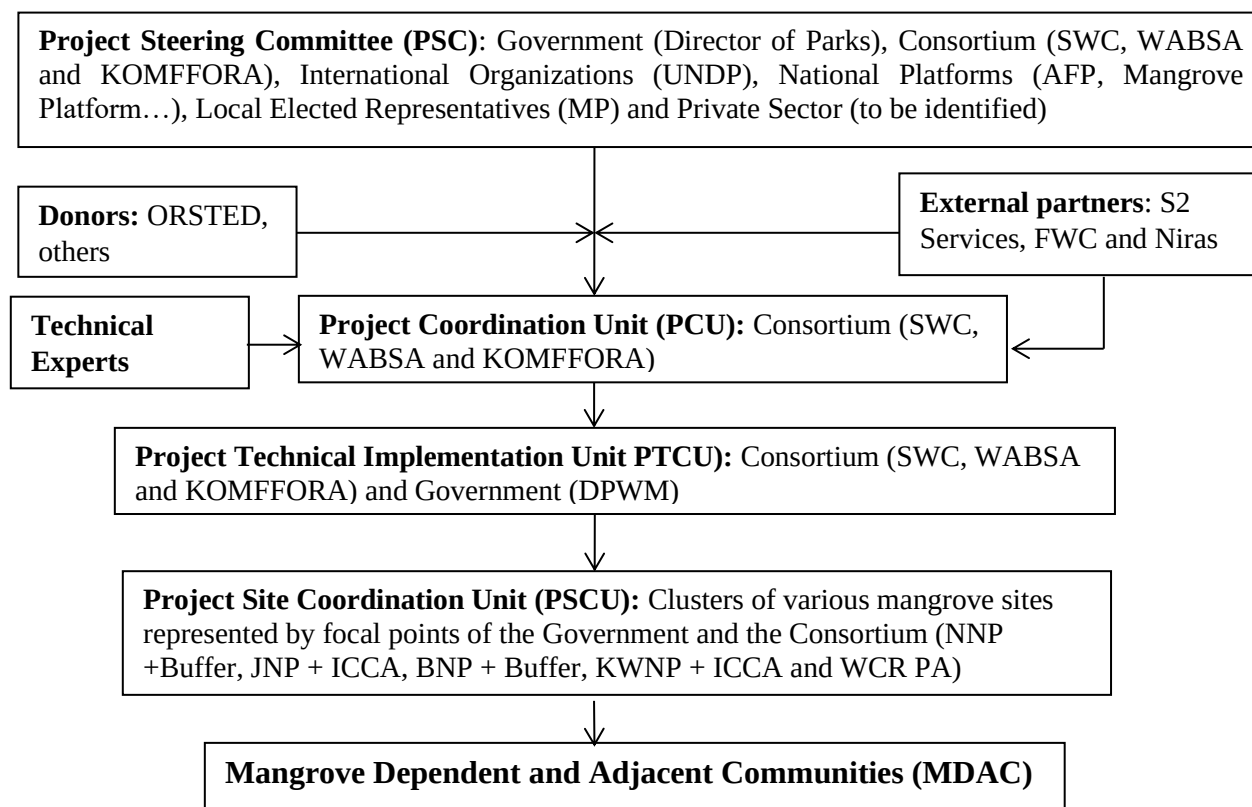
| Objectives                                                                                 | Results/Outcomes                                                                                                                                      | Activities                                                                                                        |
|--------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------|
|                                                                                            | Result 2.3. The use of alternative energy sources, grazing and technologies is supported to reduce pressures on mangroves for firewood & grazing land | 2.3.1. Support the use of alternative energy sources and technologies                                             |
|                                                                                            | Result 2.4. The population is trained on sustainable bee keeping and NTFPs enterprise development                                                     | 2.4.1. Sustainable bee farming, honey harvesting & processing                                                     |
|                                                                                            |                                                                                                                                                       | 2.4.2. Building cashew processing center                                                                          |
|                                                                                            | Result 2.5. Sustainable aquaculture and oyster harvesting techniques are promoted and supported                                                       | 2.5.1. Promote and support aquaculture and oyster farmer                                                          |
| Component 3: Capacity Building and Institutional Development                               |                                                                                                                                                       |                                                                                                                   |
| 3. Strengthen capacity of stakeholders and institutions to implement climate smart actions | Result 3.1. Enhanced capacity of stakeholders and institution to implement climate smart action                                                       | Activity: 3.1.1. Enhance the Institutional and Organizational capacity to implement climate smart action          |
|                                                                                            | Result 3.2. Support the development of Natural Resource and Environmental Conservation policies                                                       | Activity: 3.2.1. Support the development of 4 Natural Resource and Environmental Conservation related policies    |
|                                                                                            | Result 3.3. Sensitization, awareness raising and environmental education                                                                              | Activity: 3.3.1. Sensitization, awareness raising and environmental education                                     |
|                                                                                            | Result 3.4. Improve the infrastructural development and operational capacity of existing eco-centers                                                  | Activity: 3.4.1. Improve the infrastructural development and operational capacity of existing eco-centers         |
| Component 4: Restoration of degraded mangrove areas in The Gambia                          |                                                                                                                                                       |                                                                                                                   |
| 4: Restoration of degraded mangrove forest landscape of The Gambia                         | Result 4.1. A comprehensive map of mangrove areas is produced                                                                                         | Activity: 4.1.1. Acquisition of satellite imageries (landsat, Spot 6/7, etc)                                      |
|                                                                                            |                                                                                                                                                       | Activity: 4.1.2. Groundtruthing                                                                                   |
|                                                                                            |                                                                                                                                                       | Activity: 4.1.3. Image processing & map production                                                                |
|                                                                                            | Result 4.2. Train institutional personnel on the use of ROAM (Restoration Opportunities Assessment Methodology) tool                                  | Activity: 4.2.1 Train the conservation services and other institutional stakeholders in the use of ROAM tools for |

| Objectives                                                           | Results/Outcomes                                                                                                    | Activities                                                                                                                                                                                                                       |
|----------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                                                                      |                                                                                                                     | landscape restoration adapted to diverse park ecosystems notably mangroves by end of year 2                                                                                                                                      |
|                                                                      | Result 4.3. Improved Coastal Infrastructure to reduce mangrove dieback through hydrological restoration             | Activity: 4.3.1. Improve coastal infrastructure in favor of tidal circulation                                                                                                                                                    |
|                                                                      | Result 4.4. The degraded mangrove areas are reforested to restore ecological connectivity are effectively monitored | Activity: 4.4.1. Establish mangrove tree nurseries in key communities in each site to be used to replaced dead trees in reforestation activities                                                                                 |
|                                                                      |                                                                                                                     | Activity: 4.4.2. Establish community woodlots                                                                                                                                                                                    |
|                                                                      |                                                                                                                     | Activity: 4.4.3. Establish community vegetable gardens                                                                                                                                                                           |
|                                                                      |                                                                                                                     | Activity: 4.4.4. Establish community Agroforestry farms of indigenous and fast growing trees                                                                                                                                     |
|                                                                      |                                                                                                                     | Activity: 4.4.5. Reforestation of degraded sites through natural and artificial regeneration techniques with participation of local communities within the degraded areas from year 1 to year 5; on a yearly rate of 200 ha/year |
|                                                                      |                                                                                                                     | Activity: 4.4.6. Engagement of urban municipalities to clean mangrove areas (KMC in Tambi) and environmental clubs                                                                                                               |
|                                                                      | Result 4.5. Restored mangroves effectively monitored                                                                | Activity: 4.5.1. Support monitoring of restored mangrove stands on established Permanent Sample Plots (PSPs)                                                                                                                     |
| Component 5: Project management                                      |                                                                                                                     |                                                                                                                                                                                                                                  |
| Project effectively managed and monitored in a cost-effective Manner | Result 5.1. Project Management infrastructure & structure in place and functional                                   |                                                                                                                                                                                                                                  |
|                                                                      | Result 5.2. Packaging lessons learnt                                                                                |                                                                                                                                                                                                                                  |

## 3.5 Stakeholders engagement plan: Institutional and teaming arrangement

### 3.5.1 Project Organizational and functional organogram

**Figure 6: Organogram of The Gambia Mangrove Landscape REDD+ Project**



#### Legend

**SWC:** Sahel Wetland Concern

**WABSA:** West African Bird Association

**KOMFFORA:** Kombo Foni Forestry Association

**UNDP:** United Nations Development Programme

**FWC:** Forest and Wetlands Consorting

**NNP:** Niumi National Park

**JNP:** Jokadu National Park

**ICCA:** Indigenous Community Conserved Area

**BNP:** Baobolong National Park

**KWNP:** Kiang West National Park

**WCR:** West Coast Region

**PA:** Protected Area

**MP:** Member of Parliament

The Project organogram will consist of four basic management structures (Figure 6 above): Project Steering Committee (PSC), Project Management Unit (PMU), Project Technical Implementation Unit (PTIU) and Project Site Coordination Unit (PSCU). The Department of Parks and Wildlife Management (DPWM) that manages all protected areas in The Gambia will be the entry point for all government institutions in the implementation of project activities. This is due to the fact that over 80% of protected areas in The Gambia are mangroves. The Consortium (SWC: Sahel Wetland Concern, WABSA: West African Bird Association and

KOMFFORA: Kombo Foni Forestry Association) will be the entry point for all NGOs and CBOs.

## **I. Project Steering Committee (PSC)**

According to The Gambian law, any project steering committee is set up by Ministerial decision chaired by the Permanent Secretary in the ministry in charge; in this case the Ministry of the Environment, Climate Change and Natural Resources (MECCNR).

- **Functions**

- Evaluates and approves annual work plan and budget
- Oversees project at all levels of implementation
- Scrutinize proposals for the Small Grant Project Fund (SGPF) that will be initiated to support micro livelihood projects, training programmes & research, and exchange visits previewed by the project. A selection panel of at most 5 persons will be formed from the PSC to evaluate the eligibility of project proposals for SGPF.

- **Frequency of meetings:** Will meet twice per year (1<sup>st</sup> meeting-Evaluation of progress of project activities; and 2<sup>nd</sup> meeting-Approval of work plans and budgets).

- **Membership:**

**Members (at least 10):** Permanent Secretary in charge of the Ministry of the Environment, Director of Parks and Wildlife Management, The Consortium, United Nation Development Program (UNDP), National Farmers Platform (NFP), Platforms (All Forest Platform (AFP), and Mangrove Platform...) and elected local representatives (MP). Also any other expert or resource person deemed fit for the issues at hand. In fact, The PSC will strictly consist of CBOs, NGOs, and platforms to ensure the smooth and effective implementation of project activities to efficiently realize project objectives.

**Chairman:** Permanent Secretary in charge of the Ministry of the Environment

- **Remuneration:** The law also stipulates a sitting allowance issued for each meeting of the steering committee.

## **II. Project Coordination Unit (PCU)**

The PCU will be the most active member of the steering committee evaluating project activities on the ground. It has the power to influence the project steering committee to terminate contracts. Committed to ensure that at least 70% of funds are geared towards restoration and conservation efforts

- **Functions**

- Assure the mobilization of resources in time for the implementation of project activities
- Monitor and evaluate the activities of project focal points
- Support focal points in developing annual work plans and activity budget
- Submit work plans and budget to the project steering committee for scrutiny
- Initiate the call for project proposals for funding by the Small Grant Project

Fund (SGPF).

- Employ personnel, evaluate their performance and suspend/dismiss where and when appropriate.
- **Frequency of meetings:** Will meet monthly to draw operational work plans and time table
- **Membership**  
**Members (at least 5):** Chosen based on experience and competences in the different Regions of intervention of The Consortium organizations, members will be attributed to the flowing zones where their competences and comparative advantage can be fully maximized
  - Sahel Wetland Concern (SWC): Project Coordinator. Charged with the coordination of all project activities and covers the entire project area
  - Kombo Foni Forestry Association (KOMFFORA): Assistant Project Coordinator. Will coordinate within the South Bank of the River
  - West African Bird Study Association (WABSA): Assistant Project Coordinator. Will coordinate within the North Bank of the River
  - Also any other expert or resource person deemed fit for the issues at hand may also be invited to attend meetings.

**Chairman:** Chaired by any member of The Gambia consortium in a yearly rotational manner. All members have equal right and obligations

- **Remuneration:** Monthly salaries and out station allowance

### **III. Project Technical Implementation Unit (PTIU)**

- **Function**
  - Implement project activities on the ground as stipulated in the work plan
  - Work on day-to-day running of the project
  - Serve as focal points for the consortium
  - Draft and implement semester work plans according to approved annual work plans
- **Members (at least 15) :** Members are divided into two sub-units: The Technical and Administrative units

#### **A. The Technical Unit (TU)**

This sub-unit will consist of technicians and experts directing activities for effective implementation, monitoring and evaluation. They report directly to the PCU, consult with them for update/reformulation of objectives and implementation strategies.

- **Function**
  - Assure the efficient implementation of strategies in the field
  - Monitor & evaluate field activities
  - Assure the effectiveness of the access and benefit sharing mechanism put in place
  - Resolve conflicts and report offenders to the PCU

- Monitor and report illegal exploitation activities
  - Provide support and technical supervision to firewood collectors and fish smokers with a view to the sustainable use of the natural resources of the mangrove ecosystem
  - Assure rational harvesting and the reforestation of degraded zones
  - Seek the necessary support (financial, training, etc.) from donors or other organizations for the activities of the strategy
  - Collect all data and information on the use of mangroves and associated ecosystems to improve the strategy
  - Compose and propose members of vigilant groups- Collect all data and information on the use of mangroves to improve the strategy, field focal points and other resource persons on the ground
  - Identify areas for the establishment of checkpoints
  - Propose action plans and operating budget for approval by the steering committee
- **Frequency of meetings:** Will meet weekly to draft weekly work plans and time tables
  - Members (7) :** Information Communication Technology (ICT)/Geographical Information System (GIS) Officer, Carbon Asset Development Officer (CADO), Carbon Monitoring Officer (CTO), Project Technical Adviser (PTA), Capacity Building Officer (CBO), Monitoring & Evaluation Officer (MEO), and Community Liaison Officer (CLO). Any other resource persons
  - Chairman:** The Project Coordinator
  - **Remuneration:** Staff salaries and out station allowances (DSA)

#### **B. The Administrative Unit (AU)**

- **Function**
  - Charged with the day-to-day running of the office
  - Document all project actions and interventions
  - Facilitate project actions and interventions at administrative levels
- **Frequency of meetings:** Meet weekly to draft weekly actions and interventions
- **Members (7):** Logistics and Human Resource Manager, Accountant, Administrative Secretary, Driver (1) and Boat Pilots (3)
- **Remuneration:** Staff salaries and per diem

#### **IV. Site Coordination Unit (SCU)**

This unit is made up of the project focal points that will constitute the most important actors. Their actions, engagements and interventions are inevitable for the successful realization of project activities. They constitute the key stakeholders of the project.

- **Functions**
  - Implement project activities on the ground as stipulated in the work plan
  - Will work on day-to-day running of the project
  - Serve as focal points for the consortium

- Make monthly (semester work plans) and implement them according to approved annual work plans.
- **Frequency of meetings:** Will meet weekly (4 times per month) to discuss activity implementation programmes and make implementation time tables.
- **Membership.**  
**Members (at least 20):** This unit will include: CBOs, NGO, the private sector (business men and petit traders), influential and resourceful community members, and religious groups.  
**Chairman:** Any member of the technical unit
- **Remuneration:** They are provided with material support and technical assistance through the PCU for the development and implementation of their activities (pilot project activities).

#### **Engagement Strategy for project implementation and follow-up**

- A contract will be signed between the project steering committee and the conservator or management/authority in place. The conservator designates focal points from his service; focal points then sign agreements with sub-focal point (CBOs, local NGOs resource persons etc.) according to the modalities stipulated in the work plan. List of sub-focal points is evaluated and signed by the Director of DPWM.
- Sub-focal points report to focal points; and focal points report to the Conservator or the management in place. The conservator or management in place then reports to the PCU. Reports are then channelled to the steering committee by PCU for evaluations and/or deliberations.
- Sub-focal points are provided with logistic and materials support; and technical assistance for the implementation of project activities through the focal points.
- Finance and materials for the implementation of project activities is provided on a semester basis approved by the PSC headed by the DPWM.
- Contracts could be terminated or suspended when actor(s) do not adhere to project modalities.

#### **Project Offices**

The project will have two levels of office space: Project main office and Project site offices

##### **A. Project main office**

A project main office will be hosted by the Department of Parks and Wildlife Management (DPWM) and provided with relevant logistics support (1 vehicle, 5 bikes...) and personnel to coordinate the proper implementation and follow up of project activities. Personnel of project main office will include those of the Project Technical Implementation Unit (PTIU).

##### **B. Project site offices**

There will be 3 furnished site offices spread across the project area; and provided per site office with relevant logistics (5 motor bikes, 1 vehicle, 1 boat...) and personnel (3

permanent paid personnel...). This is to ensure the smooth running and proper implementation of project activities within the mangrove landscape. The project site offices will be hosted by any of the site offices of the Consortium:

- The Site Office of Sahel Wetland Concern (SWC) ,
- The Site Office of Kombo Foni Forestry Association (KOMFFORA), and

The Site Office of West African Bird Study Association (WAB

### 3.6 Project Estimated Budget

Estimated budget (Table 8) of activities basically the cost of inputs being human and material resources that will be used to run the activities such that results are obtained and the objectives of the project area met. Current estimated project cost stands are about 144 million USD also involving investment cost. A spreadsheet is available indicating all calculations.

**Table 8: Estimated project budget by objectives and results**

| Objectives                                                                                                                               | Results/Outcomes                                                                                                                                             | TOTAL            |
|------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------|
| <b>Component 1: Strengthening the Conservation capacity of mangrove protected areas (national parks, ICCA &amp; Sanctuaries)</b>         |                                                                                                                                                              |                  |
| 1. Conserve and expand existing protected areas and establish new ones to improve the management of natural resources , create 5 new PAs | <b>Result 1.1:</b> Increased operational capacities of existing PAs with at least two new ones created and managed by 2030                                   | 4 620 000        |
|                                                                                                                                          | <b>Result 1.2:</b> Infrastructure for conservation and hospitality is improved                                                                               | 1 400 000        |
|                                                                                                                                          | <b>Result 1.3 :</b> Natural resources of the parks are best managed                                                                                          | 1 105 000        |
|                                                                                                                                          | <b>Sub Total Component 1: Strengthening the Conservation capacity of mangrove protected areas (national parks, ICCA &amp; Sanctuaries)</b>                   | <b>7 125 000</b> |
| <b>Component 2: Improve community livelihood and natural resource management</b>                                                         |                                                                                                                                                              | -                |
| <b>2: Improve community livelihood and natural resource management</b>                                                                   | <b>Result 2.1.</b> A Small Grant Project Fund (SGPF) is put in place to support restoration, research and livelihood                                         | 4 500 000        |
|                                                                                                                                          | <b>Result 2.2.</b> Community-based ecotourism is promoted and enhanced                                                                                       | 2 105 000        |
|                                                                                                                                          | <b>Result 2.3.</b> The use of alternative energy sources, grazing and technologies is supported to reduce pressures on mangroves for firewood & grazing land | 4 060 000        |
|                                                                                                                                          |                                                                                                                                                              | 300 000          |

| Objectives                                                                                 | Results/Outcomes                                                                                                                           | TOTAL      |
|--------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------|------------|
|                                                                                            | <b>Result 2.4.</b> The population is trained on sustainable bee keeping and NTFPs enterprise development                                   | 335 000    |
|                                                                                            | <b>Result 2.5.</b> Sustainable aquaculture and oyster harvesting techniques are promoted and supported                                     | 120 000    |
|                                                                                            | <b>Sub Total Component 1: Strengthening the Conservation capacity of mangrove protected areas (national parks, ICCA &amp; Sanctuaries)</b> | 11 420 000 |
| <b>Component 3: Capacity Building, community development and Institutional Development</b> |                                                                                                                                            |            |
| 3. Strengthen capacity of stakeholders and institutions to implement climate smart actions | <b>Result 3.1.</b> Enhanced capacity of stakeholders and institution to implement climate smart action                                     | 2 900 000  |
|                                                                                            | <b>Result 3.2.</b> Support the development of Natural Resource and Environmental Conservation policies                                     | 120 000    |
|                                                                                            | <b>Result 3.3.</b> Sensitization, awareness raising and environmental education                                                            | 232 000    |
|                                                                                            | <b>Result 3.4.</b> Improve the infrastructural development and operational capacity of existing eco-centers                                | 300 000    |
|                                                                                            | <b>Sub Total Component 3: Capacity Building and Institutional Development</b>                                                              | 3 560 000  |
| <b>Component 4: Restoration of degraded mangrove areas in The Gambia</b>                   |                                                                                                                                            |            |
| 4: Restoration of degraded mangrove forest landscape of The Gambia                         | <b>Result 4.1.</b> A comprehensive map of mangrove areas is produced                                                                       | 526 400    |
|                                                                                            | <b>Result 4.2.</b> Train institutional personnel on the use of ROAM (Restoration Opportunities Assessment Methodology) tool                | 20 000     |
|                                                                                            | <b>Result 4.3.</b> Improved Coastal Infrastructure to reduce mangrove dieback through hydrological restoration                             | 20 100 000 |
|                                                                                            | <b>Result 4.4.</b> The degraded mangrove areas are reforested to restore ecological connectivity are effectively monitored                 | 73 600 000 |

| Objectives                                                             | Results/Outcomes                                                                         | TOTAL              |
|------------------------------------------------------------------------|------------------------------------------------------------------------------------------|--------------------|
|                                                                        | <b>Result 4.5.</b> Restored mangroves effectively monitored                              | 2 200 000          |
|                                                                        | Sub Total Component 3: Mangrove Landscape Restoration                                    | <b>96 446 400</b>  |
| <b>Component 4: Management</b>                                         |                                                                                          |                    |
| 5-Project effectively managed and monitored in a cost-effective Manner | <b>Result 5.1.</b> Project Management infrastructure & structure in place and functional | 24 833 000         |
|                                                                        | <b>Result 5.2.</b> Packaging lessons learnt                                              | 5100000            |
|                                                                        | <b>Sub Total Component 3: Management</b>                                                 | <b>25 615 500</b>  |
| <b>GRAND TOTAL</b>                                                     |                                                                                          | <b>144 166 900</b> |

## 4 Initial estimation of emission reduction potential

### 4.1 Emission Reduction Estimation procedure

This first hand theoretical emission reduction estimation was centered within two components: emission reduction from conservation and sustainable land management, and emission reduction from reforestation.

### 4.2 CO<sub>2</sub>e removal from conservation (Avoided deforestation and land degradation)

For ER from conservation and sustainable land management, many parameters were used gotten from literature review of past publications

#### Estimation of deforestation rate

Historical deforestation rate was used to estimate the possible emissions reduction under the conservation approach. Total mangrove cover for the year 1980, 2000, 2005, 2010 and 2020 were used. With this information the following was calculated:

- **Absolute loss (loss/year) =** 
$$\frac{\text{Change in mangrove}}{\text{Number of years}}$$
- **Deforestation rate =** 
$$\frac{\text{Absolute loss}}{\text{Total area (in year)}} \times 100$$

Between 2010 and 2020 (change in mangrove area), the deforestation rate was estimated at 1%. This rate was applied on the actual mangrove area (65 000 ha) to estimate the annual loss in forest cover for the 30 years project crediting period.

#### Above ground and below ground estimate

According to the Ajonina et al., 2014, for the Mangroves of Central Africa, a conservative low end estimation indicates that 50% of AGB and 25% of soil organic carbon from the top 30 cm will be lost annually. Using the total carbon stocks/ha for above ground and below ground from literature review, possible emissions resulting from forest cover loss was estimated using the formula:

- **Above Ground Biomass Carbon stocks (AGBC)**

$$\text{AGBC} = \text{ton C/ha} \times \text{annual Surface loss} \times 0.5$$

- **Below Ground Carbon stocks (BGBC)**

$$\text{BGBC} = \text{ton C/ha} \times \text{annual Surface loss}$$

- **Soil Organic Carbon (SOC)**

$$\text{SOC} = \text{ton C/ha} \times \text{annual Surface loss} \times 0.25$$

## Emission Reduction if mangrove is preserved

$$ER = \frac{\sum (AGBC + BGBC + SOC)}{\text{conversion factor (tCO}_2 \text{ eq)}}$$

The total emission reduction from conservation (avoided deforestation and land degradation) during the 30 years project crediting period is estimated at about **3 000 000 tCO<sub>2</sub>e**.

## 4.3 Emission Reduction from Mangrove Landscape Restoration (Reforestation)

### Planting surface and desired species

The project has as objective to plant 10 000 ha degraded mangrove areas with 2 mangrove species (*Rhizophora mangle* -90% and *Avicennia germinans*-10%). With planting spacing of 1 m x1 m, stand density will be 10 000 tress/ ha.

### Tree growth data (diameter)

Annual diameter data used came from literature review of publications and expert experience in the field. The average high is between 3 and 10 m, and diameter reaching 20 cm. For a conservative estimation, the maximum diameter considered in this calculation at 30 years was 12.45 cm, starting from 0.3 cm in year 1.

### Estimation of Biomass and Carbon stocks

The allometric equation used in the Myanmar REDD+ project was used to estimate total (AGB and BGB).

- **$\log_{10}(\text{total biomass}) = -0.9036 + 2.9499 \log_{10} \text{DBH}$**
- **$\text{Total carbon stocks (t C/ha)} = \text{Total Biomass} \times 0.47$**

Note: 0.47 = Carbon fraction on tree biomass (Source: Clean Development Mechanism)

### Estimation of Soil Organic Carbon (SOC)

Default value of 0.5 was used. Value taken from CDM: AR-AMS0003: Afforestation and reforestation project activities implemented on wetlands.

### Change in Carbon stock ( $\Delta C$ )

This is calculated using the formula:

$$\text{Change in carbon stocks } (\Delta) = \Delta C (AGBC + BGBC + SOC)$$

### Actual net GHG removals by sinks, in year t; tCO<sub>2</sub>e /ha

Calculated as:  $\Delta C - \text{Leakage}$

For now, the estimation considered to be equal to “zero” for the increase in non-CO2 GHG emissions (leakage) within the project boundary as a result of the implementation of the A/R project activity, in year  $t$ ; tCO<sub>2</sub>e.

After deducting 10% to account for the buffer zone, the total emission reduction from mangrove landscape restoration (reforestation) for all carbon pools during the 30 years project crediting period is estimated at about **31 000 000 tCO<sub>2</sub>e**. This makes about 3100 tCO<sub>2</sub>e for one hectare in 30 years, thus on average 103 tCO<sub>2</sub>e per hectare per year.

The total emission reductions for the 30 years project period combining conservation and reforestation is about **34 000 000 tCO<sub>2</sub>e**.

With the total project cost estimated at about 144 million USD, the cost for reducing a ton of CO<sub>2</sub>e is about 4.24USD.

## 5 Next steps

Next steps will be oriented towards acquiring baseline information for the development of further project support documents and carbon negotiations.

|   | Activity                                                    | Objective of the activity                                                                                                                                                                                              | Place of work                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | Month 1 | Month 2 | Month 3 | Month 4 |
|---|-------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------|---------|---------|---------|
| 1 | Historical analysis of deforestation and forest degradation | This will help to improve emission reductions from conservation                                                                                                                                                        | In Cameroon with an expert prior to designing field data collection (groundthuthing procedures)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |         |         |         |         |
| 2 | Mapping of reforestation and restoration areas              | Validate the planned 10,000 ha of mangrove to be replanted<br>Locate exact reforestation spots<br>Locate exact degradation spots and needs of restoration<br>Determination of species mixtures and proportion per site | (1) More than 80% for field work in Gambia (at least 20 days for other experts/assistants) (Total 20 days for Princial Investigator (PI) for enire work including carbon assessment making 2 trips: First 10 days for initiation of team with 2 experts & last 10 days for evaluation/synthesis) : field work needed for (a ) location/selection of sites for reforestation/afforestation (b) Determine mangrove species combinations within the context of the sites to maximise carbon sequestration and biodiveristy (2) Write up (Cameroon by Principal Investigator) for atleast 10 days                                                    |         |         |         |         |
| 3 | Evaluation of carbon stock and forest dynamics              | Review and evaluation of the existing Permanent Sampling Plots                                                                                                                                                         | Also see the joint description of this activity with that above: (1) More 80% for field work in Gambia (atleast 40 days) (Total 20 days for Princial Investigator (PI): First 10 days for initiation of team with 2 experts & last 10 days for evaluation/synthesis) : field work needed for (a) field checks, reassessment & remeasurement of PSP, (b) destructive biomass sampling to determine carbon stock determined tree constants (BEF, RSR...) and soil organic carbon which are mostly site specific (c) Possible laboratory analysis (lab available in Gambia) (2) Write up (Cameroon by Principal Investigator) for at least 10 days. |         |         |         |         |

|   | Activity                                                                   | Objective of the activity                                                                                                                                                | Place of work          | Month 1 | Month 2 | Month 3 | Month 4 |
|---|----------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------|---------|---------|---------|---------|
| 4 | Carbon asset estimation                                                    | Carbon asset methodology analysis, methodologies and tools selection, estimation of baseline, additionality, potential for emission reduction etc. put together in a PIN | Cameroon               |         |         |         |         |
| 5 | Capacity building need assessment in Gambia                                | To anticipate on how the project will be implemented in Gambia                                                                                                           | In Gambia and Cameroon |         |         |         |         |
| 6 | Recommendations to the Gambia government on REDD+ institutional management |                                                                                                                                                                          | In Gambia and Cameroon |         |         |         |         |
| 7 | Assessment of co-financing options                                         | Produce and extended executive summary of the feasibility report and contact and if possible conduct negotiations and agreements with co-financiers                      | In Gambia and Cameroon |         |         |         |         |
| 8 | Negotiations with NIRAS/ORSTED                                             | Aim to get a final agreement with ORSTED in April                                                                                                                        | In Cameroon            |         |         |         |         |

After the next steps presented in the table above, the final step prior to the implementation will be the development of the PDD following the selected standards, most likely VERRA. This will include all methodological needs, social and environmental impact assessment, gender impact assessment, DOE validation, registration under the selected standard (VERRA most likely) etc. Total cost will be evaluated together with NIRAS and ORSTED after final agreement is secured with all parties.

## Some environmental context policy documents of The Gambia

### Legal Context

1. Constitution of the Gambia 1997
2. Biodiversity/Wildlife Law
3. Gambia Climate Change Policy
4. Fisheries Law and regulation
5. Fisheries Policy
6. Forestry Law and regulation
7. Forestry Policy
8. Local Government Law
9. Decentralization Policy
10. Water Resources Law
11. Water Resources Policy

### Conventions

- United Nation Convention on Biological Diversity 10-06-1994
- United Nation Convention on Desertification and Deforestation
- United Nation Framework Convention on Climate Change 22-05-1994
- Bonn Challenge (Forest Landscape Restoration Initiative) 2020
- Ramsar Convention on Wetlands of International Importance 16-09-1996
- Convention on Migratory Species
- African Eurasian Water bird Agreement 01-11-1999
- Convention on International Trade on Endangered Species 24-11-1977

### National Strategies

- Nationally Determined Contribution
- National Development Plan
- National Adaptation Plan of Action
- National Biodiversity Strategy and Action Plan
- Program of Work on Protected Area Action Plan
- National Adaptation Plan for UNCCD
- Gambia National Agricultural Investment Plan
- Coast Zone Management Plan

### Targets

- Protected area target 10% increase by 2020
- Bonn Challenge target restoration of 400,000ha by 2030

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# Annexes

## Annex 1: Endorsement and Exclusivity letter to ORSTED

A noticeable result of the field mission was the securing of the Endorsement and Exclusivity Letter addressed to ORSTED, from the Honorable Minister of Environment, Climate Change and Natural Resources



### REPUBLIC OF THE GAMBIA

Ministry Of Environment, Climate Change, & Resources,  
GIEPA House - 1st Floor  
Kairaba Avenue  
Kanifing Municipality

27<sup>th</sup> November, 2020

Orsted A/S  
Kraftvaerksvej  
53 Skaerbeak  
7000 Fredericia  
Denmark

ATTENTION: Mr Peter KofodKristensen

**SUBJECT: ENDORSEMENT AND EXCLUSIVITY FOR THE DEVELOPMENT OF THE PROJECT "CONSERVATION OF THE MANGROVE ECOSYSTEMS IN THE GAMBIA THROUGH THE REDD+ MECHANISM"**

Following the letter of non-objection **AHK 200/140/01/(106)** provided to The Gambia Based Associations, Sahel Wetlands Concern (SWC), Kombo Foni Forestry Association (KOMFORA) and West African Bird Study Association (WABSA), and the Cameroon based companies S2 Services (S2) and Forests & Wetlands Consulting (FWC) for the development of the project **"CONSERVATION OF THE MANGROVE ECOSYSTEMS IN THE GAMBIA THROUGH THE REDD+ MECHANISM"** to protect the mangroves of Gambia on all sites including amongst other sites: Bintang Bolong tributary of the River Gambia, The Tanbi Wetland Complex, The Mouth of the River Gambia, The Niumi National Park, Jokadu National Park, Cape Point Creek, Allaheini River, Kartong and, Faraba Community Conserved Area; and

Considering the interest and commitment you have shown in supporting us to develop the project and explore financing it through carbon finance mechanisms and other funding sources;

We are hereby indicating our endorsement for the project with the listed national and Cameroon partners; and giving you exclusivity for carbon finance negotiations until we come to a final agreement for the funding of the project.

The Government of The Gambia is always supportive of any initiative towards environmental protection and wildlife conservation, provided that the national institutional framework for the development of such initiative is respected and it contributes to sustainable development of the communities and the country as a whole.

The Government of The Gambia will be available to provide any further support necessary for the successful implementation of the project.

We look forward to your positive response

Lamin B Dibba



The Minister of the Environment, Climate Change and Natural Resources  
48 Kairaba Avenue, Geipa House, KMC

## Annex 2: Proceedings of the field mission and cost

The table below indicate all activities/actions carried out during the mission, with achieved results.

| Mission days   | Activity                                                            | Description/Results                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | Comments                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
|----------------|---------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Nov 1 – Nov 21 | Preparation phase                                                   | Preparation of the agenda, people to meet, Obtaining invitation letters, etc.<br>Preparation of the accommodation and transport arrangements, preparation and printing of all necessary documentation,<br>To do the Covid-19 tests, necessary to enter Gambia                                                                                                                                                                                                                                                                                                                                                                                                          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| Nov 22         | Flight to Banjul in The Gambia from Douala                          | Dr. Gordon Ajonina<br>Mr. Mbacham Chenyuei                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | Durando Ndongsok, the 3 <sup>rd</sup> member of the mission was tested positive of Covid-19 and quarantined, so could not travel anymore. He is following the mission from Cameroon                                                                                                                                                                                                                                                                                                      |
| Nov 23-24      | Working session in Banjul with The Gambia Consortium                | <ul style="list-style-type: none"> <li>Clarification of our collaboration agreement and the roles of each of the parties, as well as the potential advantages and co-benefits of each stakeholder</li> <li>Status of negotiations with ORSTED</li> <li>Elaboration of the first draft of the project organisation chart</li> <li>Situational analysis of mangrove sites in The Gambia in terms of drivers of change and project prospects based on current and potential livelihood activities</li> <li>Discussions and elaboration of project activities and logical framework</li> <li>A planning of all visits with institutions, stakeholders and sites</li> </ul> |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| Nov 25-26      | Meeting with key institutions and Directors of sectorial ministries | The exchange of this day allowed us to clarify our interest in The Gambia and its biodiversity, to present the project, discuss and verify the procedures and administrative modalities to be followed for the implementation of the project (national REDD+ procedures, environmental and climate policies, others...); including the concept of co-benefits, carbon credits and the benefit-sharing mechanism; to further intensify the analysis of the situation and the relevance of the project and to collect relevant information and supporting documents                                                                                                      | Institutions visited were: <ul style="list-style-type: none"> <li>Director of the Department of Parks and Wildlife Management and Biodiversity Conservation (DPWM)</li> <li>Director of Forestry</li> <li>Director of Livestock Management</li> <li>Director of Agriculture</li> <li>Director National Environmental Agency (NEA)</li> <li>Director of Tourism</li> <li>Director of Fisheries</li> <li>Director of Water Resources</li> <li>Director of Community Development</li> </ul> |
| Nov 27         | Site visits                                                         | Visited: <ol style="list-style-type: none"> <li>Tumani Tend</li> <li>Tanbi Wetland National Park</li> <li>Farafenni</li> <li>Kuntair</li> </ol>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | <ul style="list-style-type: none"> <li>Communities highly depend on natural resource and land for their livelihood</li> <li>Agroforestry species of interest is cashew nuts</li> </ul>                                                                                                                                                                                                                                                                                                   |

| Mission days | Activity    | Description/Results                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | Comments                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
|--------------|-------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|              |             | 8. Jokadu National Park<br>9. Berending<br>10. Kalagi and Brumang<br>Main observations/take away:<br>11. Eco-camp<br>12. Road infrastructure<br>13. Dieback is a great problem<br>14. Mangrove restoration works<br>15. A Bird sanctuary under the management of WABSA<br>16. Agroforestry farms established by individuals<br>17. Fencing is a very important aspect across the landscape<br>18. Animals are free breeding                                                                                                                       | <ul style="list-style-type: none"> <li>The need for more farming output pushes farmers (rice cultivators) to extent their rice fields into mangroves</li> <li>Some mangrove planting have been done in these areas</li> <li>Access to portable water is great challenge to humans and animals alike</li> <li>Communities are actively involved in the management of natural resources especially women and welcome this the project and are ready to give in their best to support</li> </ul>                                                                                                                                               |
| Nov 28       | Site visits | Visited:<br>19. Bintang Bolong<br>20. Kiang West National Park<br>21. Bintang Bolong Tributary<br>22. Dumbuto<br>23. Niumi National Park<br>24. Baobolong National Park<br>Main observations/take away:<br>25. Rice cultivation drives mangrove clearing for farming land<br>26. Salt intrusion is propagating the invasion of rice farms by mangroves<br>27. Road infrastructure blocks tidal circulation resulting to dieback and biodiversity loss<br>28. Fencing is a very important aspect across the landscape<br>Animals are free breeding | <ul style="list-style-type: none"> <li>Bringing back the hydrological movement could restore hectares of mangroves through assisted natural regeneration (Culverts should be intensified to 2 culverts per 100 m)</li> <li>Improved tidal circulation will bring back the physicochemical conditions of mangrove sites</li> <li>Alternative energy and livelihood sources will greatly impact conservation and integrated landscape management</li> <li>Communities are actively involved in the management of natural resources especially women and welcome this the project and are ready to give in their best to support</li> </ul>    |
| Nov 29       | Site visits | Visited:<br>29. Kafuta<br>30. Bondali Tenda and<br>31. Komi Foni community<br>Main observations/take away:<br>32. An establishing NTFPs enterprise (KOMFFORA)<br>33. Community members especially women carry out oyster harvesting and vegetable gardening as livelihood<br>34. KOMFFORA has need for infrastructure and logistic support<br>35. Community is in dying need of technical and financial support to boost their resilience to the changing environment<br>36. Honey farming is common in the area                                  | 141 Some mangrove planting have been done in these areas<br>142 Access to portable water is great challenge to humans and animals alike. Bore hole systems driven by solar energy could be a good alternative<br>143 Communities are actively involved in the management of natural resources especially women and welcome the project with the readiness to give in their best to support<br>144 Improving the capacity of lead organization like KOMFFORA in this area will greatly impact the implementation of the project<br>145 Locals must fence their farmlands against animal encroachment in order to secure a profitable harvest |

| Mission days | Activity                                                                | Description/Results                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | Comments                                                                                                                                                                                                                                                                                                                                                                                       |
|--------------|-------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|              |                                                                         | 37. Fencing is a very important aspect across the landscape<br>38. Animals are free breeding                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                                                                                                                                                                                                                                                                                                                                                                                                |
| Nov 30       | Working session in Banjul with The Gambia Consortium                    | 39. Preparation of the workshop presentation and materials<br>40. Finalization of draft project documents<br>4. Logical framework<br>5. Project Organogram (Stakeholders analysis and engagement plan)<br>6. Diagnosis of project area (Problem tree)                                                                                                                                                                                                                                                                                                                                                                                                                                | This strategy was used to finalize inputs of different project components to reflect the actual situation and best practice strategies the project.                                                                                                                                                                                                                                            |
| Dec 01       | Workshop in Banjul at Baobab Resort, The Gambia                         | Workshop involved key stakeholders from sectorial ministries and institutions, representatives of community-based organisations, influential community members and the local population.<br>The workshop was an opportunity to:<br>41. carry out the situational and diagnostic analysis supporting the project<br>42. Presents and discusses the project's logical framework and organisational structure (organisation chart) with key stakeholders, including the concept of co-benefits and carbon credits<br>The main articulations of the workshop were :<br>43. Official opening<br>44. Group work in small groups (split away groups)<br>45. Report of each group in plenary |                                                                                                                                                                                                                                                                                                                                                                                                |
| Dec 02       | 1 <sup>st</sup> Post Workshop synthesis and consolidation               | 46. This sitting aimed to support the finalization of the mission documents to take into account the need of mangrove dependent population and The Gambia government in the realization of project as raised during the workshop.<br>47. In attendance was the consortium and some resource persons (Volunteers)                                                                                                                                                                                                                                                                                                                                                                     | See project organisation chart and logical framework in the section "key results of the mission"                                                                                                                                                                                                                                                                                               |
| Dec 03 – 05  | Report preparation with consortium and further stakeholder consultation | 48. Working session with mapping agency on December 04 and 05 to design maps<br>49. In attendance was the consortium and some resource persons (Volunteers)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | This included members of the consortium and other volunteers. Elements raised by stakeholders concerning the organogram/Activities were inserted to reflect a sustainable and feasible strategy for the implementation of the project<br>This sitting aimed to support the finalization of the mission documents to take into account the need of mangrove dependent population and The Gambia |

| Mission days | Activity                                                                               | Description/Results                                                                                                                                                                                                                                                                                                               | Comments                                                                                                                                                                                                  |
|--------------|----------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|              |                                                                                        |                                                                                                                                                                                                                                                                                                                                   | government in the realization of project as raised during the workshop.                                                                                                                                   |
| Dec 06       | Debriefing with consortium members, finalizing documents and preparation for departure | <p>The major articulation of the workshop were:</p> <ul style="list-style-type: none"> <li>Finalize discussions with the consortium Collect information and backing documents as on the checklist of document</li> <li>Presentation of findings and validation of mission documents</li> </ul> <p>Drafting of the way forward</p> | It was also the occasion to draft a realistic budget needed to implement these activities estimated                                                                                                       |
| Dec 07       | Departure from The Gambia                                                              | Return of the Cameroon consortium in Douala Cameroon was unsuccessful due to flight delays from The Gambia                                                                                                                                                                                                                        | Flight delayed by 1 hour 30 minutes due to technical issues face by the air line. We arrive our next transit (Lome in Togo) 1 hour 30 minutes after our transit plane left.                               |
| Dec 08       | Intensive work session by the Cameroon consortium                                      | <p>Working session between FWC and S2 Services. Mission team worked remotely with colleges in Cameroon:</p> <p>50. Finalization of logical framework, project activities and budget</p> <p>51. Drafting of the feasibility study report</p>                                                                                       | The mission team spent 2 nights in Togo (nigh of 7 <sup>th</sup> and 8 <sup>th</sup> of December)                                                                                                         |
| Dec 09       | Departure from Togo                                                                    | Return of the mission team in Douala Cameroon                                                                                                                                                                                                                                                                                     | The Management of S2 Services picked up the team at the Douala International Airport at 3:45 PM. The consortium then had a brief meeting during which the mission was summarized and next steps discussed |

The table below presents the cost of the mission

| #  | Designation                                           | Quantity | Unit cost<br>(Euro) | Total amount<br>(Euro) |
|----|-------------------------------------------------------|----------|---------------------|------------------------|
| 0  | Flights tickets                                       | 2        | 1 097               | 2 194                  |
| 1  | Cost to postpone return flight Dr. Gordon Ajonina     | 1        | 61                  | 61                     |
| 2  | Cost to postpone return flight Mbacham Chenyuei       | 1        | 61                  | 61                     |
| 3  | Per diem Mbacham Chenyuei                             | 18       | 70                  | 1 260                  |
| 4  | Per diem Dr. Gordon Ajonina                           | 18       | 70                  | 1 260                  |
| 5  | Entry and exit visa Mbacham                           | 2        | 17                  | 33                     |
| 6  | Entry and exit visa Dr. Gordon                        | 2        | 17                  | 33                     |
| 7  | Accommodation at Baobab Holiday Resort                | 1        | 743                 | 743                    |
| 8  | Accommodation at Gam Sea Apartment                    | 1        | 48                  | 48                     |
| 9  | Coffee break and lunch buffet for workshop            | 1        | 525                 | 525                    |
| 10 | Provision of transportation                           | 1        | 2 891               | 2 891                  |
| 11 | Per diem during workshop                              | 1        | 2 540               | 2 540                  |
| 12 | Other logistics for the workshop                      | 1        | 1 190               | 1 190                  |
|    | <b>Total cost of the mission to put in the report</b> |          |                     | <b>12 839</b>          |

Accommodation in was changed from Gam Sea Apartment to Baobab Holiday Resort from day 2 because there was no infrastructure to conduct meetings and internet was not available.

\*costs from local currencies to Euro are converted using [www.oando.com](http://www.oando.com) on the rate of 10 December 2020

### Annex 3: Matrix of Logical framework of objectives and results

| Project element                                                                                                                                                                                                                                                  | Indicator                                                                                     |                                                                                                               |                                                                                |                                              | Assumption                                                                     | Risk                                           | Mitigation                                                                             |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------|----------------------------------------------|--------------------------------------------------------------------------------|------------------------------------------------|----------------------------------------------------------------------------------------|
|                                                                                                                                                                                                                                                                  | Definition                                                                                    | Baseline condition                                                                                            | Target                                                                         | Means of verification                        |                                                                                |                                                |                                                                                        |
| <b>Objective:</b><br>Enhance Resilience of Vulnerable Coastal Areas and Communities to Support Mangrove Landscape Restoration and Sustainable Use of local resources for Biodiversity Conservation, Sustainable Livelihoods and Emission Reduction in The Gambia | Proportion of the country's mangrove dependent population resilient to climate change effects | Despite several projects that are scattered the results are not yet exploitable to properly assess resilience | At least 60% of the population under the project is resilient                  | Project documents, reports, field visits     | Mangrove communities participate in the project                                | Socio-political stability of the country (low) | Stable democratically elected government in place                                      |
| <b>Specific objectives/Results</b>                                                                                                                                                                                                                               |                                                                                               |                                                                                                               |                                                                                |                                              |                                                                                |                                                |                                                                                        |
| <b>Component 1: Strengthening the Conservation capacity of mangrove protected areas (national parks, ICCA &amp; Sanctuaries)</b>                                                                                                                                 |                                                                                               |                                                                                                               |                                                                                |                                              |                                                                                |                                                |                                                                                        |
| <b>SO-1:</b> Conserve and expand existing protected areas and establish new                                                                                                                                                                                      | Number of mangrove protected areas (MPAs): National parks                                     | There are presently 4 NP, 14 ICCAs, 4 Reserves, 533 community forest                                          | Improve the conservation capacity of 15 PAs and create at least 5 PAs by 2030; | Gazette notice by the Hon. Minister; updated | Providing adequate resource to meet conservation needs will boost conservation | •Land tenure/land use conflict                 | Land use planning<br>-Demarcation of PAs<br>-Increase the management capacities of PAs |

| Project element                                                                                                               | Indicator                                                                                                                         |                                                                                                                                         |                                                                                                                                                                 |                                                                                                               | Assumption                                                                                                              | Risk                                                                                                                                                                                                                                                           | Mitigation                                                                                                                                                                                               |
|-------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                                                                                                                               | Definition                                                                                                                        | Baseline condition                                                                                                                      | Target                                                                                                                                                          | Means of verification                                                                                         |                                                                                                                         |                                                                                                                                                                                                                                                                |                                                                                                                                                                                                          |
| ones to improve the management of natural resources , create 5 new PAs                                                        | (NP), Indigenous community conserved areas (ICCA & Sanctuaries), Biospheres, Conservation Area, Community forest and forest parks | and 66 forest parks but they are:<br>•ineffective management<br>•Size of PAs do not meet conservation needs<br>•poor land tenure system | improve management policies; support the update or development management plans and support law enforcement                                                     | management plans                                                                                              | efforts; update/development of management plans will improve conservation and all stakeholders have positive perception | <ul style="list-style-type: none"> <li>•Encroachments &amp; illegal activities</li> <li>•Poaching</li> <li>•Poverty</li> <li>•Human wildlife conflicts</li> <li>•Staff de-motivation</li> <li>•Deforestation and land degradation</li> <li>•Dieback</li> </ul> | -Increase patrol missions/surveillance<br>•Consult and integrate indigenous people in every activity and take into account the need for alternatives to assure the effectiveness of conservation efforts |
| <b>Result 1.1.</b><br>Increased operational capacities of existing PAs with at least two new ones created and managed by 2030 | Number of conservation units created                                                                                              | •As above                                                                                                                               | <ul style="list-style-type: none"> <li>•Increased operational capacities of existing PAs</li> <li>•At least two new ones created and managed by 2030</li> </ul> | <ul style="list-style-type: none"> <li>•Project documents</li> <li>•Management plans</li> </ul>               | Cooperation of stakeholders                                                                                             | <ul style="list-style-type: none"> <li>•Human wildlife conflicts</li> <li>-encroachments</li> </ul>                                                                                                                                                            | <ul style="list-style-type: none"> <li>•Improved technical and infrastructure and capacity to undertake patrols. Community awareness drive.</li> </ul>                                                   |
| <b>Result 1.2.</b><br>Infrastructure for conservation and hospitality is improved                                             | Number and quality of infrastructure e.g. viewing Towers (VT), staff quarters                                                     | <ul style="list-style-type: none"> <li>•Depreciating infrastructure</li> <li>•Inadequate facilities</li> </ul>                          | •Current infrastructure in PAs are accessed renovated and new adequate protected                                                                                | <ul style="list-style-type: none"> <li>•Physical structures</li> <li>•Current status of facilities</li> </ul> | -The management of PAs will appreciate the support                                                                      | <ul style="list-style-type: none"> <li>-Depreciation</li> <li>-Destruction of VTs by bush fires</li> <li>-Flash floods and soil erosion</li> </ul>                                                                                                             | <ul style="list-style-type: none"> <li>-Yearly maintenance of VT and infrastructure of PAs</li> <li>-Fire tracing and early control burning</li> </ul>                                                   |

| Project element                                                                                         | Indicator                                                                                                                     |                                                                                                                                                                                       |                                                                                                                                                                                                       |                                                                                                                                       | Assumption                                                                                        | Risk                                                                                                                                       | Mitigation                                                                                                                                                                                                                                                  |
|---------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                                                                                                         | Definition                                                                                                                    | Baseline condition                                                                                                                                                                    | Target                                                                                                                                                                                                | Means of verification                                                                                                                 |                                                                                                   |                                                                                                                                            |                                                                                                                                                                                                                                                             |
|                                                                                                         | and office building, Out-Rangers Post (ORP)                                                                                   |                                                                                                                                                                                       | area facilities constructed                                                                                                                                                                           | •Status of mangrove stands                                                                                                            |                                                                                                   | -Dieback, biodiversity loss, food insecurity                                                                                               | -Adopt the construction of climate change adaptive<br>-Carry out and integrate the findings of EIA in the construction of roads, dykes and dams                                                                                                             |
| <b>Result 1.3.</b><br>Natural resources of the PAs are best managed                                     | Number and frequency of patrol missions per year to combat Illegal exploitation of TFPs and NTFP, presence of management plan | -Illegal exploitation of TFPs and NTFP<br>-Ineffective implementation of the management plans<br>-Limited capacity of personnel<br>-Insufficient resource/logistics to effect patrols | -To support the enforcement of natural resource management policies by increasing at least 12 patrols per year per PA.<br>-Enhance the capacity of Pas through provision of adequate logistic support | -Effectiveness of the protected area in terms of management and biodiversity conservation<br>- level of logistics support for patrols | The availability of resources will assure the efficient implementation of conservation activities | -Encroachment and poaching<br>-Bush fires<br>-Illegal exploitation of resources<br>-Poor governance<br>- Conflict on institutional mandate | -Integrate communities in management<br>-Establish Community Policing System (CPS)- community vigilante<br>-Organize training programmes and awareness for personnel of PAs and CPS<br>-Establish an annual running budget to support the activities of PAs |
| <b>Component 2: Improve community livelihood, community development and natural resource management</b> |                                                                                                                               |                                                                                                                                                                                       |                                                                                                                                                                                                       |                                                                                                                                       |                                                                                                   |                                                                                                                                            |                                                                                                                                                                                                                                                             |

| Project element                                                                                                                                         | Indicator                                                                                                                                                                                                            |                                                                                                                                                |                                                                                                                                                                                                                                  |                                                                                                                     | Assumption                                                                                                                                                                                                                                                | Risk                                                                                                                                                                                                                                                        | Mitigation                                                                                                                                                                                                                                  |
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|                                                                                                                                                         | Definition                                                                                                                                                                                                           | Baseline condition                                                                                                                             | Target                                                                                                                                                                                                                           | Means of verification                                                                                               |                                                                                                                                                                                                                                                           |                                                                                                                                                                                                                                                             |                                                                                                                                                                                                                                             |
| <b>SO-2:</b> Develop and implement socioeconomic activities to support livelihood and enhance mangrove conservation and sustainable resource management | Number and conservation effectiveness and climate smartness of livelihood activities put in place for improved living standards of mangrove dependent communities<br>Effectiveness of the benefit sharing mechanisms | Much efforts have been done by local NGOs, CBOs, International organization and the government with little effective benefit sharing mechanism | The project will support the development of climate smart of at least 5 livelihood activities to support clean development in The Gambia supervised by local NGOs and CBOs with effective benefit sharing mechanism put in place | Activity reports, video clips as testimonies from mangrove dependent communities                                    | This component will boost economic development in mangrove dependent communities and in The Gambia in general. Climate Smart Actions implementation will improve livelihood and contribute to national and international obligations and responsibilities | <ul style="list-style-type: none"> <li>-Actors might not fully adopt climate smart actions</li> <li>-Limited capacities could limit activities</li> <li>-Miss management/miss appropriation of funds</li> <li>-Meeting deadline for deliverables</li> </ul> | <ul style="list-style-type: none"> <li>-Awareness building and sensitization programs</li> <li>-Training and capacity building</li> <li>-Put in place a strict financial mechanism</li> <li>-Contracting of activities to actors</li> </ul> |
| <b>Result 2.1.</b> A Small Grant Project Fund (SGPF) is put in place to support restoration, research and livelihood                                    | Number of livelihood project supported and number with level of satisfaction of NGOs & CBOs involved                                                                                                                 | There exist three active grant from: GEF (climate resilience and biodiversity), GCCA+ (contributes in building climate resilience in           | Provide at least 50 000 dalasi annual support grants to CBOs, NGOs, Research institutions, and the private sectors                                                                                                               | <ul style="list-style-type: none"> <li>-Approved research/project proposals'</li> <li>-Submitted reports</li> </ul> | Grant will encourage the participation of more stakeholders to participate in the project                                                                                                                                                                 | -Miss use of grant support                                                                                                                                                                                                                                  | <ul style="list-style-type: none"> <li>-Grant beneficiaries will sign a contract with a monitoring and evaluation plan done by the management units</li> <li>-Beneficiaries report their activities on a</li> </ul>                         |

| Project element                                                                                                                                              | Indicator                                                                                                                                                                       |                                                                                                                                                                                                                            |                                                                                                                                                                                                     |                                                                                                                                                  | Assumption                                                                                                                                                                                                   | Risk                                                         | Mitigation                                                             |
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|                                                                                                                                                              | Definition                                                                                                                                                                      | Baseline condition                                                                                                                                                                                                         | Target                                                                                                                                                                                              | Means of verification                                                                                                                            |                                                                                                                                                                                                              |                                                              |                                                                        |
|                                                                                                                                                              | including Research institutions, and the private sectors.                                                                                                                       | coastal areas) NEMA/ROTTs project (Agricultural promotion project)                                                                                                                                                         |                                                                                                                                                                                                     |                                                                                                                                                  |                                                                                                                                                                                                              |                                                              | quaternary to the management unit                                      |
| <b>Result 2.2.</b><br>Community-based ecotourism is promoted and enhanced                                                                                    | Number of Eco-community structures (community Eco-camps and community wildlife eco-centres) supported                                                                           | There exist over 10 eco-community structures with at least 7 private                                                                                                                                                       | Existing ones supported and at least 5 new ones created                                                                                                                                             | Site visits & reports                                                                                                                            | Cooperation of the population                                                                                                                                                                                | -Encroachments into farmlands by wildlife<br>-Water scarcity | Fencing the centres                                                    |
| <b>Result 2.3.</b> The use of alternative energy sources, grazing and technologies is supported to reduce pressures on mangroves for firewood & grazing land | Number and categories of alternative clean energy sources and technologists introduced including sustainable grazing options (hydro fodders) and their management effectiveness | There have been some initiatives with small scale production of green charcoal/briquettes from leaves and grass. There is a great potential for raw materials (cow dung, residues from rice and groundnuts leaves and reed | Support mangrove dependent communities to adopt clean energy technologies<br>-To install 3 green charcoal production facilities (charcoal produced will be subsidized by the project_30% reduction) | -Physical structure<br>-Production and distribution reports<br>-Testimonies from the population<br>-Perception of mangrove dependent communities | The use of green energy technologies and green fuels will reduce efforts in getting firewood, reduce grazing pressure and with eventual reduced pressures on mangroves; this will as well reduce health risk | Continual use of the old system                              | -Sensitization put in place a monitoring mechanism; provide motivation |

| Project element                                                                                                                                   | Indicator                                                                                                                                              |                                                                                                                                                                                                             |                                                                                                                                                                                                                                        |                                                                            | Assumption                                                                                                                                                                                                                              | Risk                                                                                                                                                                                           | Mitigation                                                                                                                                                                                            |
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|                                                                                                                                                   | Definition                                                                                                                                             | Baseline condition                                                                                                                                                                                          | Target                                                                                                                                                                                                                                 | Means of verification                                                      |                                                                                                                                                                                                                                         |                                                                                                                                                                                                |                                                                                                                                                                                                       |
|                                                                                                                                                   |                                                                                                                                                        | beds and woodlots and bamboo farms)<br>Few communities practice use of improve cooking stove technology (less than 1% of mangrove dependent communities use stoves). Animals freely graze in mangrove areas | -50 000 ICS will be produced and distributed<br>- To plant 500 ha of bamboo to supplement and construction energy needs<br>- Put in place at least 2 hydro-fodder complex units                                                        |                                                                            |                                                                                                                                                                                                                                         |                                                                                                                                                                                                |                                                                                                                                                                                                       |
| <b>Result 2.4.</b> The population is trained on sustainable bee keeping and NTFPs enterprise development to reduce pressure on mangrove resources | <ul style="list-style-type: none"> <li>•Number of bee-hives installed</li> <li>•Number of people trained and</li> <li>•frequencies per year</li> </ul> | There exist many initiatives within the landscape carrying out this activity notably CBOs NGOs, national and international organizations                                                                    | <ul style="list-style-type: none"> <li>•To construct and install at least 10000 bee hives spread in at least 165 communities</li> <li>•Train people on sustainable bee keeping 3 times per year: set up and hive management</li> </ul> | Reports, field observations to see implanted bee hives and processed honey | <ul style="list-style-type: none"> <li>•Community stakeholders will welcome this initiative and participate</li> <li>•This will enhance pollination and generate a vibrant ecosystem; thus increasing ecosystem productivity</li> </ul> | <ul style="list-style-type: none"> <li>•Risk of accidents and attack by honey</li> <li>•Bush fires</li> <li>•Climate change</li> <li>•Migration of bees</li> <li>•Termite invasions</li> </ul> | <ul style="list-style-type: none"> <li>•Plant fruit trees</li> <li>•Early control clearing</li> <li>•Ecosystem restoration and conservation</li> <li>•Sensitization and awareness building</li> </ul> |

| Project element                                                                                           | Indicator                                                                                                                                                                                                                                   |                                                                                                                                                                                                          |                                                                                                                                                                                                                                                                         |                                                                                                 | Assumption                                                                                                                                              | Risk                                                                                                                                                                                             | Mitigation                                                                                                                                                    |
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|                                                                                                           | Definition                                                                                                                                                                                                                                  | Baseline condition                                                                                                                                                                                       | Target                                                                                                                                                                                                                                                                  | Means of verification                                                                           |                                                                                                                                                         |                                                                                                                                                                                                  |                                                                                                                                                               |
| <b>Result 2.5.</b><br>Sustainable aquaculture and oyster harvesting techniques are promoted and supported | <ul style="list-style-type: none"> <li>•Number of oysters farms fresh fish and marine culture ponds established</li> <li>•Number and frequency of oysters farmers trained in sustainable harvesting and domestication techniques</li> </ul> | <ul style="list-style-type: none"> <li>•Stakeholders have great potentials, motivation and interest in aquaculture.</li> <li>•Unsustainable oyster farming is highly practiced in these areas</li> </ul> | Annual training on sustainable oysters harvesting and establish 6 oyster farms, 2 fresh fish pond, and 7 Marine culture ponds. These structures are meant to support the supply of fish products in markets and further support other community development initiatives | Physical structures, production reports, training reports                                       | These initiatives will support efforts against food insecurity, poverty and unemployment. The population of The Gambia is increasing at 2.9% per year.  | <ul style="list-style-type: none"> <li>•Poor infrastructure and engineering</li> <li>•High tides</li> <li>•Disease outbreak</li> <li>•Theft</li> <li>•Use of chemicals and pollutions</li> </ul> | <ul style="list-style-type: none"> <li>•Train communities</li> <li>•Reforestation of mangrove stands</li> <li>•Sensitization and awareness raising</li> </ul> |
| <b>Component 3: Capacity Building and Institutional Development</b>                                       |                                                                                                                                                                                                                                             |                                                                                                                                                                                                          |                                                                                                                                                                                                                                                                         |                                                                                                 |                                                                                                                                                         |                                                                                                                                                                                                  |                                                                                                                                                               |
| <b>SO-3:</b> Strengthen capacity of stakeholders and institutions to implement climate smart actions      | Number and proportion of stakeholders institutions (government, civil society organizations, private sector)                                                                                                                                | Insufficient capacities at the institutional and grass root levels                                                                                                                                       | To enhance the operational and technical capacities of at least 60% of key institutions involved in mangrove sustainable management and MDC ; and that of                                                                                                               | Training reports; effectiveness of the implementation of project activities<br>Policy documents | Training will boost the activities of MDC; this will directly impact conservation efforts, and further support the realization of the governments goals | Risk of chance to attend training                                                                                                                                                                | Plan training during weekends and consult all actors                                                                                                          |

| Project element                                                                                            | Indicator                                  |                                                                    |                                                                                                                                                                                                                                                                                                                                                                                                               |                                                                             | Assumption                                                                                | Risk                                                             | Mitigation                                           |
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|                                                                                                            | Definition                                 | Baseline condition                                                 | Target                                                                                                                                                                                                                                                                                                                                                                                                        | Means of verification                                                       |                                                                                           |                                                                  |                                                      |
|                                                                                                            |                                            |                                                                    | the Project Team (PSC, PMU, PTMU, and the grass roots)                                                                                                                                                                                                                                                                                                                                                        |                                                                             |                                                                                           |                                                                  |                                                      |
| <b>Result 3.1.</b><br>Enhanced capacity of stakeholders and institution to implement climate smart actions | Number and training programmes implemented | Most stakeholders lack capacity in sustainable mangrove management | <ul style="list-style-type: none"> <li>•Capacity assessment at grassroots level involving the potential beneficiaries, MDFTs, TAC embers and project Steering committee in year 1</li> <li>•Training of stakeholders on participatory Monitoring and Evaluation (2 times a year for first 5 year)</li> <li>•Trainings on carbon monitoring and the carbon market (2 times a year for first 5 year)</li> </ul> | Training reports; effectiveness of the implementation of project activities | Training will boost the activities of MDC; this will directly impact conservation efforts | -Risk of chance to attend training<br>-De-missioning of an actor | Plan training during weekends and consult all actors |

| Project element                                                                                           | Indicator                                                                |                                                                                                                               |                                                                                                                                                             |                                                                                                                                                                  | Assumption                                                                                    | Risk                                                                                                                                        | Mitigation                                                                                                                                                                                                                 |
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|                                                                                                           | Definition                                                               | Baseline condition                                                                                                            | Target                                                                                                                                                      | Means of verification                                                                                                                                            |                                                                                               |                                                                                                                                             |                                                                                                                                                                                                                            |
|                                                                                                           |                                                                          |                                                                                                                               | •Trainings on restoration techniques in the first 2 years                                                                                                   |                                                                                                                                                                  |                                                                                               |                                                                                                                                             |                                                                                                                                                                                                                            |
| <b>Result 3.2.</b><br>Support the development of Natural Resource and Environmental Conservation policies | Number and quality of policies supported                                 | There exist policies on the environment, forestry, water resources but do not yet effectively integrate climate change issues | Support the development of environmental and To support the development of: wetland policy, wildlife policy, REDD+ policy                                   | <ul style="list-style-type: none"> <li>•Wildlife policy documents</li> <li>•Wetland policy documents</li> <li>•REDD+ policy</li> <li>•Wildlife policy</li> </ul> | Policies will guide the proper implementation of conservation actions                         | <ul style="list-style-type: none"> <li>•Conflict on institutional mandate</li> <li>•Land use conflicts</li> <li>•Poor governance</li> </ul> | <ul style="list-style-type: none"> <li>•Consult sectorial ministries and institutions in policy development</li> <li>•Carry out EIA</li> <li>•Include all stakeholders in policy development and implementation</li> </ul> |
| <b>Result 3.3.</b><br>Sensitization, awareness raising and environmental education                        | Level of sensitization and awareness raising and environmental education | Some sensitization and awareness building programs have been done by some local NGOs and CBOs but still limited               | At least 60% of Mangrove dependent communities, Community Forest Communities (CFC), Schools, government and private institutions are effectively sensitized | Population perception and their engagements in environmental and natural resource initiatives                                                                    | Sensitization will motivate actors and stakeholders to adopt best practices in their programs | <ul style="list-style-type: none"> <li>•Risk of chance to attend training</li> <li>•De-missioning of an actor</li> </ul>                    | Plan training during weekends and consult all actors                                                                                                                                                                       |
| <b>Result 3.4.</b><br>Improve the infrastructural                                                         | Level and quality of logistics and                                       | SWC, KOMFFORA and WABSA have                                                                                                  | To provide logistic support and infrastructural                                                                                                             | •Physical structures and                                                                                                                                         | -Improving infrastructure will motivate the                                                   | Medium                                                                                                                                      | Involve all interested parties in the training program, take into consideration the interest                                                                                                                               |

| Project element                                                              | Indicator                                                                                                                                                                                                                |                                                                                                                                                                                                            |                                                                                                                                                                                                                            |                                                                                                                                                                                                                                                   | Assumption                                                                                                                                                                                                                    | Risk                                                                                                                           | Mitigation                                                                                                                                                      |
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|                                                                              | Definition                                                                                                                                                                                                               | Baseline condition                                                                                                                                                                                         | Target                                                                                                                                                                                                                     | Means of verification                                                                                                                                                                                                                             |                                                                                                                                                                                                                               |                                                                                                                                |                                                                                                                                                                 |
| development and operational capacity of existing eco-centres.                | infrastructural development provided to existing eco-centres serving as focal points for the implementation of conservation and restoration activities                                                                   | established eco-centres but with need for improvement and logistic support                                                                                                                                 | development for SWC, KOMFFORA and WABSA                                                                                                                                                                                    | operational training centres<br>•Training reports                                                                                                                                                                                                 | interest of the centre<br>-Training will boost the activities profile of locals and enhance their productivity and livelihood                                                                                                 |                                                                                                                                | of vulnerable groups and women                                                                                                                                  |
| <b>Component 4: Restoration of the mangrove landscape</b>                    |                                                                                                                                                                                                                          |                                                                                                                                                                                                            |                                                                                                                                                                                                                            |                                                                                                                                                                                                                                                   |                                                                                                                                                                                                                               |                                                                                                                                |                                                                                                                                                                 |
| <b>SO-4:</b> Restoration of degraded mangrove forest landscape of The Gambia | <ul style="list-style-type: none"> <li>•Proportion of degraded mangrove landscapes restored</li> <li>•Number of hectares and trees planted</li> <li>•Level of participation of mangrove dependent communities</li> </ul> | Some restoration efforts of local NGOs and CBOs have been carried out though mangrove landscape suffers from dieback caused mostly by poor road infrastructure and inappropriate environmental engineering | Over of 10 000 hectares of mangrove planted in at most 5 years targeting all mangrove communities in The Gambia and its surrounding to support ecosystem restoration, biodiversity conservation and livelihood of mangrove | <ul style="list-style-type: none"> <li>•Reports and field visits</li> <li>•GIS analysis</li> <li>•Permanent Samples Plots (PSPs)</li> <li>•Planting results</li> <li>•Status of mangrove stands</li> <li>•Living standards of mangrove</li> </ul> | Restoration is a key action to biodiversity conservation, climate change mitigation and livelihood enhancement. This will greatly contribute to the International and National commitments of The Gambia: The Bonn Challenge, | <ul style="list-style-type: none"> <li>•Flash floods</li> <li>•Sedimentation</li> <li>•Unsustainable infrastructure</li> </ul> | <ul style="list-style-type: none"> <li>•Redress road infrastructure in affected zones</li> <li>-Plant mangroves and put in place a monitoring system</li> </ul> |

| Project element                                                                                                             | Indicator                                                                                                                         |                                                                                                        |                                                                                                                |                                                                                                     | Assumption                                                                                                                                            | Risk                                                                                           | Mitigation                                                                          |
|-----------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
|                                                                                                                             | Definition                                                                                                                        | Baseline condition                                                                                     | Target                                                                                                         | Means of verification                                                                               |                                                                                                                                                       |                                                                                                |                                                                                     |
|                                                                                                                             |                                                                                                                                   |                                                                                                        | dependent communities                                                                                          | dependent communities                                                                               | INDCs, CBD, and the Paris agreement                                                                                                                   |                                                                                                |                                                                                     |
| <b>Result 4.1.</b> A comprehensive map of mangrove areas is produced                                                        | Map available showing all mangrove areas in Gambia and their status (cover, degradation and change with time)                     | Map not available                                                                                      | To establish a map of the mangrove landscape of The Gambia is produced by the end of 2020                      | A detailed map of the mangrove landscape                                                            | The map will be useful in identifying hotspots for restoration; this will as well raise awareness and build a sense of responsibility of stakeholders | Under/over estimations of mangrove landscape characteristics                                   | The NEA is recommended to do the job in their well-equipped and competent personnel |
| <b>Result 4.2.</b> Train institutional personnel on the use of ROAM (Restoration Opportunities Assessment Methodology) tool | <ul style="list-style-type: none"> <li>•Number of personnel trained</li> <li>•Level of applicability of ROAM technique</li> </ul> | Non                                                                                                    | Training all conservation staff and key actors                                                                 | Training reports                                                                                    | Trainees enthusiastic to learn and they master the technique                                                                                          | Not mastery of technique                                                                       | Selection of competent trainers                                                     |
| <b>Result 4.3.</b> Improved Coastal Infrastructure to reduce mangrove dieback through                                       | Number of hectares of dieback degraded areas restored through                                                                     | -Environmentally unfriendly infrastructure restricting the free circulation of tidal flow causing salt | <ul style="list-style-type: none"> <li>•Level of implementation of recommendations of Ajonina et al</li> </ul> | <ul style="list-style-type: none"> <li>•GIS analysis</li> <li>•Status of mangrove stands</li> </ul> | -Government might not be able to co-fund road infrastructure activity                                                                                 | <ul style="list-style-type: none"> <li>•Dieback, biodiversity loss, food insecurity</li> </ul> | -Adopt the construction of climate change adaptive infrastructure                   |

| Project element                                                                                  | Indicator                                                                                                                              |                                                                                                 |                                                                                                                                                     |                                                                                                                                                                                                         | Assumption                                                                                                                                                                     | Risk                                                                                                                           | Mitigation                                                                                                                                                                                                                                                                                                                           |
|--------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                                                                                                  | Definition                                                                                                                             | Baseline condition                                                                              | Target                                                                                                                                              | Means of verification                                                                                                                                                                                   |                                                                                                                                                                                |                                                                                                                                |                                                                                                                                                                                                                                                                                                                                      |
| hydrological restoration                                                                         | environmental engineering (densification of culverted roads and dams and dyke infrastructure) to improve tidal flow                    | intrusion and acidification resulting to dieback and associate consequences                     | (2014) for level of densification of road, dykes and damp infrastructure to support mangrove landscape restoration                                  | <ul style="list-style-type: none"> <li>•Volume of tidal flow in affected sites</li> </ul>                                                                                                               |                                                                                                                                                                                | <ul style="list-style-type: none"> <li>•The commit of the government</li> </ul>                                                | <ul style="list-style-type: none"> <li>-Construction of environmentally friendly infrastructure</li> <li>-Adopt the recommendations of Dr Gordon (2014)</li> <li>-Adopt environmental engineering in development works</li> <li>-Carry out and integrate the findings of EIA in the construction of roads, dykes and dams</li> </ul> |
| <b>Result 4.4.</b> The degraded mangrove areas are reforested to restore ecological connectivity | Number of hectares of degraded areas restored through planting with <i>Rhizophora mangle</i> - 90 % and <i>Avicennia germinans</i> 10% | Some restoration efforts of local NGOs and CBOs have been carried out though mangrove landscape | To plant at least 10 000 ha in 5 years of degraded mangrove areas ( <i>Rhizophora mangle</i> - 90 % and <i>Avicennia germinans</i> 10%) inn 5 years | <ul style="list-style-type: none"> <li>•Reports and field visits</li> <li>•Planting results</li> <li>•Status of mangrove stands</li> <li>•Living standards of mangrove dependent communities</li> </ul> | Restoration is a key action to biodiversity conservation, climate change mitigation and livelihood enhancement. This will greatly contribute to the International and National | <ul style="list-style-type: none"> <li>•Flash floods</li> <li>•Sedimentation</li> <li>•Unsustainable infrastructure</li> </ul> | <ul style="list-style-type: none"> <li>-Appropriate GIS studies and site identification should be done</li> <li>- Environmental engineering to make way for tidal flow into planting areas</li> </ul>                                                                                                                                |

| Project element                                                                           | Indicator                                                           |                                                                                 |                                                             |                                                                                                                                                                                 | Assumption                                                                                                            | Risk                                     | Mitigation                       |
|-------------------------------------------------------------------------------------------|---------------------------------------------------------------------|---------------------------------------------------------------------------------|-------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------|------------------------------------------|----------------------------------|
|                                                                                           | Definition                                                          | Baseline condition                                                              | Target                                                      | Means of verification                                                                                                                                                           |                                                                                                                       |                                          |                                  |
|                                                                                           |                                                                     |                                                                                 |                                                             |                                                                                                                                                                                 | commitments of The Gambia: The Bonn Challenge, INDCs, CBD, and the Paris agreement                                    |                                          |                                  |
| <b>Result 4.5.</b><br>Restored mangroves effectively monitored                            | Frequency of reassessment of mangrove carbon permanent sample plots | Plot established in 2014 materials for re-measurements kept at NEA headquarters | •At least one re-measurement every 5 years                  | <ul style="list-style-type: none"> <li>•Reports and field visits</li> <li>•GIS analysis</li> <li>•Permanent Samples Plots (PSPs)</li> <li>•Status of mangrove stands</li> </ul> | Plots are fully protected                                                                                             | •vandalism                               | •large community sensitization   |
| <b>Component 5: Project effectively managed and monitored in a cost-effective Manner.</b> |                                                                     |                                                                                 |                                                             |                                                                                                                                                                                 |                                                                                                                       |                                          |                                  |
| <b>Result 5.1:</b><br>Project effectively managed and monitored                           | Effectiveness of project management                                 | Zero                                                                            | Activities implemented on time and within budget            | •Project periodic terminal evaluations and final evaluation                                                                                                                     | Intensive project monitoring and mid-term review will be Able to identify problems and make corrections if necessary. | •Poor capacity in project implementation | •A validated organogram in place |
| <b>Result 5.2.</b><br>Project results and lessons learned                                 | Project reporting and dissemination                                 | Zero                                                                            | Progress is reported Accurately and on time and results are | •Project periodic terminal                                                                                                                                                      | Intensive                                                                                                             |                                          | A validated organogram in place  |

| Project element           | Indicator                               |                    |                                                                                                  |                                  | Assumption                                                                                                     | Risk | Mitigation |
|---------------------------|-----------------------------------------|--------------------|--------------------------------------------------------------------------------------------------|----------------------------------|----------------------------------------------------------------------------------------------------------------|------|------------|
|                           | Definition                              | Baseline condition | Target                                                                                           | Means of verification            |                                                                                                                |      |            |
| reported and disseminated | of project results and lessons learned. |                    | disseminated widely to assist with replication and sustainability beyond the end of the project. | evaluations and final evaluation | project monitoring and mid-term review will be<br>Able to identify problems and make corrections if necessary. |      |            |

### Annex 4: Matrix for Activity Logframe

| Activity<br>(Start & End year)                                                                                                                                      | Responsibility (Lead and Co-lead)               | Definition, justification and methodology                    | Indicator for Measuring Performance                    | Target for Indicator(s)                                                               | Risk factor for the activity and risk level in terms of low, medium, high | Risk mitigation measure |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------|--------------------------------------------------------------|--------------------------------------------------------|---------------------------------------------------------------------------------------|---------------------------------------------------------------------------|-------------------------|
| <b>Component 1: Strengthening the Conservation capacity of mangrove protected areas (national parks, ICCA &amp; Sanctuaries)</b>                                    |                                                 |                                                              |                                                        |                                                                                       |                                                                           |                         |
| <b>Result 1.1.</b> Increased operational capacities of existing PAs with at least two new ones created and managed by 2030                                          |                                                 |                                                              |                                                        |                                                                                       |                                                                           |                         |
| <b>Activity 1.1.1.</b> Materialize boundaries of mangrove protected areas including National parks, ICCAs & sanctuaries                                             | -Lead DPWM<br>-Co-lead: Surrounding Communities | Consists of putting in place boundary demarcation signboards | Install sign boards at strategic points within the PAs | Five PAs are covered                                                                  | Medium                                                                    | Quality infrastructure  |
| <b>Activity 1.1.2</b> Conduct frequent field missions in the parks                                                                                                  | -Lead DPWM<br>-Co-lead: Surrounding Communities | Conduct frequent fix and mobile patrols                      | Number of patrols per month                            | At least 1 patrol per month                                                           | medium                                                                    | Logistic support        |
| <b>Activity 1.1.3.</b> Support the formulation and implementation of co-management plans for mangrove protected areas including National parks, ICCAs & sanctuaries | -Lead DPWM<br>-Co-lead: Surrounding Communities | Formulation and execution of co-management plans             |                                                        | he co-management plans formulated at the end of year 1 and implemented thereafter and | Medium                                                                    | Technical support       |

| Activity<br>(Start & End year)                                                                                        | Responsibility (Lead and Co-lead)                   | Definition, justification and methodology                                                                                                                                                                                                                    | Indicator for Measuring Performance                | Target for Indicator(s)         | Risk factor for the activity and risk level in terms of low, medium, high | Risk mitigation measure   |
|-----------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------|---------------------------------|---------------------------------------------------------------------------|---------------------------|
|                                                                                                                       |                                                     |                                                                                                                                                                                                                                                              |                                                    | revised 15 years later          |                                                                           |                           |
| <b>Activity 1.1.4.</b> Enhance the capacity of personnel on the use of new information and communication technologies | -Lead DPWM<br>-Co-lead: Surrounding Communities     | Eco-guards, the permanent management team, freelance guides, vigilance committee, common initiative groups (CIGs) and community based organizations (CBOs): Are trained on the use of new information and communication technologies and operation equipment | Number & proportion trained                        | At least 75% of the personnel   | medium                                                                    | Training assistance       |
| <b>Result 1.2.</b> Infrastructure for conservation and hospitality is improved                                        |                                                     |                                                                                                                                                                                                                                                              |                                                    |                                 |                                                                           |                           |
| <b>Activity 1.2.1.</b> Construction and maintenance of control posts and watchtowers                                  | Lead: GAM Works<br>Co-lead: National Road Authority | supporting the construction of control posts and watchtowers; Renovating control post and watchtowers                                                                                                                                                        | Number and quality of physical structures in place | Construct 50 Photo hide         | low                                                                       | Quality of infrastructure |
| <b>Result 1.3.</b> Natural resources of the PAs are best managed                                                      |                                                     |                                                                                                                                                                                                                                                              |                                                    |                                 |                                                                           |                           |
| <b>Activity 1.3.1.</b> Conduct wildlife and socio-economic                                                            | -Lead DPWM<br>-Co-lead: Surrounding Communities     | Regular conduct of wildlife and socio-economic inventories; and other natural resources studies                                                                                                                                                              | Number of studies or surveys conducted,            | Data and reports of studies and | low                                                                       | Technical support         |

| Activity<br>(Start & End year)                                                                                       | Responsibility (Lead and Co-lead)               | Definition, justification and methodology                                                                                                                         | Indicator for Measuring Performance       | Target for Indicator(s)            | Risk factor for the activity and risk level in terms of low, medium, high | Risk mitigation measure                                            |
|----------------------------------------------------------------------------------------------------------------------|-------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------|------------------------------------|---------------------------------------------------------------------------|--------------------------------------------------------------------|
| inventories; and other natural resources studies                                                                     |                                                 | within the MPAs to update existing data base                                                                                                                      | availability of updated data base         | surveys available                  |                                                                           |                                                                    |
| <b>Activity 1.3.2.</b> Regularly monitor to control evasive species and artisanal hunting in MPAs                    | -Lead DPWM<br>-Co-lead: Surrounding Communities | Monitoring of evasive species and artisanal hunting within the MPAs                                                                                               | Quantity & species controlled             |                                    | medium                                                                    | Logistic support                                                   |
| <b>Activity 1.3.4.</b> Monitor the impact of picking, fishing and sampling of species in MPAs                        | -Lead DPWM<br>-Co-lead: Surrounding Communities | Regular organization of monitoring missions on picking of mangrove species                                                                                        | Number of missions organized              | At least 3 per year                | medium                                                                    | Logistic support                                                   |
| <b>Component 2: Improve community livelihood, community development and natural resource management</b>              |                                                 |                                                                                                                                                                   |                                           |                                    |                                                                           |                                                                    |
| <b>Result 2.1.</b> A Small Grant Project Fund (SGPF) is put in place to support restoration, research and livelihood |                                                 |                                                                                                                                                                   |                                           |                                    |                                                                           |                                                                    |
| <b>Activity 2.1.1.</b> Provide small grants projects project funds to boost project activities by other organization | The Consortium & Selection committee            | Proposals for grants in line with project aspirations and activities will be selected from other organizations and final decision of award by steering committee. | Number of organizations benefited         | At least 2 organisation 5 per year | low                                                                       | Contract and proper follow up by consortium and steering committee |
| <b>Result 2.2.</b> Community-based ecotourism is promoted and enhanced                                               |                                                 |                                                                                                                                                                   |                                           |                                    |                                                                           |                                                                    |
| <b>Activity 2.2.1.</b> Design a sustainable community based ecotourism promotion plan for                            | The Consortium & consultants                    | Inventory on ecotourism potentials, improve marketing strategies and promotion plan                                                                               | Community based ecotourism plan available | Community based ecotourism plan    | low                                                                       | Plan in place                                                      |

| Activity<br>(Start & End year)                                                                                                                               | Responsibility (Lead and Co-lead) | Definition, justification and methodology                                                                                                                                                                                                                                                                                      | Indicator for Measuring Performance                                                                                                                         | Target for Indicator(s)                                                | Risk factor for the activity and risk level in terms of low, medium, high | Risk mitigation measure                                                  |
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| mangrove dependent communities                                                                                                                               |                                   |                                                                                                                                                                                                                                                                                                                                |                                                                                                                                                             | developed by 2023                                                      |                                                                           |                                                                          |
| <b>Activity 2.2.2.</b> Design and build basic infrastructure and promote ecotourism activities                                                               | The Consortium & consultants      | Supporting ecotourism activities and Improve ecotourism infrastructure                                                                                                                                                                                                                                                         | Number and amount of support provided                                                                                                                       | At least 10 Community based ecotourism structures supported            | medium                                                                    | Technical & operational supported provided                               |
| <b>Result 2.3.</b> The use of alternative energy sources, grazing and technologies is supported to reduce pressures on mangroves for firewood & grazing land |                                   |                                                                                                                                                                                                                                                                                                                                |                                                                                                                                                             |                                                                        |                                                                           |                                                                          |
| <b>Activity 2.3.1.</b> Support the use of alternative energy sources and technologies                                                                        | The Consortium                    | Support mangrove dependent communities to adopt clean energy technologies<br>-To install 3 green charcoal production facilities (charcoal produced will be subsidized by the project_30% reduction)<br>-60 000 ICS will be produced and distributed<br>- To plant 500 ha of bamboo to supplement and construction energy needs | Available clean energy sources and technologies in mangrove dependent communities,<br><br>Reports on mangrove species use for firewood in these communities | Support clean energy and technologies to reduce pressures on mangroves | Continual use of the old system                                           | - Sensitization put in place a monitoring mechanism ; provide motivation |

| Activity<br>(Start & End year)                                                                           | Responsibility (Lead and Co-lead)                                                                                               | Definition, justification and methodology                                                                                                                           | Indicator for Measuring Performance                         | Target for Indicator(s)                                                                                                | Risk factor for the activity and risk level in terms of low, medium, high                                    | Risk mitigation measure                                  |
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| <b>Result 2.4.</b> The population is trained on sustainable bee keeping and NTFPs enterprise development |                                                                                                                                 |                                                                                                                                                                     |                                                             |                                                                                                                        |                                                                                                              |                                                          |
| <b>Activity 2.4.1.</b> Sustainable bee farming, honey harvesting & processing                            | Lead: KOMFFORA<br>Co-lead: DPWM , NEA, DOF, DF, SWC, ;KOMFORA GEPAGDE, WCT ,MAKASUTU, WILDLIFE TRUST,GTB and Local CBO and NGOs | Making honey<br>Soap making<br>Body cream making                                                                                                                    | Bee hives, processed honey, training reports, annual report | Training of bee farmers and other actors on honey and value addition techniques, construct and supply 10 000 bee hives | Bush fire<br>Lower water supply , less flowering plant , less bee colonies<br>Termites and animal disturbing | Creating fire bell<br>Watering<br>Community surveillance |
| <b>Activity 2.4.2:</b> Building cashew processing centre                                                 | Lead: KOMFFORA<br>Co-lead: DPWM , NEA, DOF, DF, SWC, ;KOMFORA GEPAGDE, WCT ,MAKASUTU, WILDLIFE TRUST,GTB and Local CBO and NGOs | Consultation of local community<br>Call for bidders<br>Selection of bidders<br>Purchased and install the equipment<br>Engaged communities to plant more cashew tree | Construction of cashew processing centre                    | 1 cashew processing centre                                                                                             | Engine failure<br>Fire in the centre                                                                         | Good technical advice<br>Fire extinguishers              |

| Activity<br>(Start & End year)                                                                         | Responsibility (Lead and Co-lead)                                                                                                  | Definition, justification and methodology                                                                                                                                                                                                       | Indicator for Measuring Performance | Target for Indicator(s) | Risk factor for the activity and risk level in terms of low, medium, high | Risk mitigation measure                                             |
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|                                                                                                        |                                                                                                                                    | The benefit: Creating more canopy and restored more carbon ,deforestation will be minimize because the leaf of cashew will be used to make fire briquettes there less pressure on forest cutting                                                |                                     |                         |                                                                           |                                                                     |
| <b>Result 2.5.</b> Sustainable aquaculture and oyster harvesting techniques are promoted and supported |                                                                                                                                    |                                                                                                                                                                                                                                                 |                                     |                         |                                                                           |                                                                     |
| <b>Activity 2.5.1:</b> Aquaculture and oyster farmer<br>2020 -2029                                     | Lead: KOMFFORA<br>Co-lead: DPWM , NEA, DOF, DF, SWC, ;KOMFORA<br>GEPAGDE, WCT ,MAKASUTU, WILDLIFE TRUST,GTB and Local CBO and NGOs | Consultation with local community<br>Consult NARI expert<br>To identify sites<br>Digging of ponds<br>Stocking the pond with fingerlings<br>Purchased chickens<br><br>Feeding the young fish<br>Poultry<br>The benefit : it create food security | 3 fish ponds in Madinna kanuma      | 6 fish ponds            | Theft : medium<br>Outbreak disease<br>Wrong site identification           | Providing security (day and night watchman<br>Advice from livestock |
| <b>Component 3: Capacity Building, community development and Institutional Development</b>             |                                                                                                                                    |                                                                                                                                                                                                                                                 |                                     |                         |                                                                           |                                                                     |

| Activity<br>(Start & End year)                                                                                 | Responsibility (Lead and Co-lead) | Definition, justification and methodology                                                                                                                                                                                                                                                                              | Indicator for Measuring Performance                                                     | Target for Indicator(s)                  | Risk factor for the activity and risk level in terms of low, medium, high | Risk mitigation measure                        |
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| <b>Result 3.1.</b> Enhanced capacity of stakeholders and institution to implement climate smart action         |                                   |                                                                                                                                                                                                                                                                                                                        |                                                                                         |                                          |                                                                           |                                                |
| <b>Activity 3.1.1.</b> Enhance the Institutional and Organizational capacity to implement climate smart action | Lead: DPWM Co-lead: MECCNR        | -Formulate two training courses for Train personnel of the park, Park Community Members (PCM), Village Development Committee (VDC) and Multi-disciplinary Facilitation Team (MDPT);<br>-Operational capacity enhanced for efficient management of biodiversity and the environment; food security and disaster control | -Level of participation by stakeholders<br>-Standard of living<br>-Output in management | The project target all levels and actors | Low                                                                       | Hire experts to train trainers for the country |
| <b>Result 3.2.</b> Support the development of Natural Resource and Environmental Conservation policies         |                                   |                                                                                                                                                                                                                                                                                                                        |                                                                                         |                                          |                                                                           |                                                |
| <b>Activity 3.2.1.</b> Support the development of 4 Natural                                                    | Lead: MECCNR<br>Co-lead: DPWM     | Wetlands and Mangrove policies, REDD+ policies and Wildlife policy and                                                                                                                                                                                                                                                 | -Formulated, adopted policies and                                                       | To support the developme                 | High                                                                      | Hire international experts to                  |

| Activity<br>(Start & End year)                                                      | Responsibility (Lead and Co-lead)           | Definition, justification and methodology                                                                                                                                                                                                                                                                                                                                                            | Indicator for Measuring Performance                                      | Target for Indicator(s)                                                                                    | Risk factor for the activity and risk level in terms of low, medium, high | Risk mitigation measure        |
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| Resource and Environmental Conservation related policies                            |                                             | Landscape restoration strategy<br>-To foster actions and ascertain national commitments and obligations in resource management; indicates the interest of institutions and mangrove dependent communities (MDC) will greatly impact conservation efforts and the Adoption of Good Practices (AGP)<br>-Recruitment of consultants and considering the voice of all actors in the formulations process | enforced policies;<br>-National reports                                  | nt of Wetlands and Mangrove, Wildlife and REDD+ policies and Landscape Restoration Strategy for The Gambia |                                                                           | train trainers for the country |
| <b>Result 3.3.</b> Sensitization, awareness raising and environmental education     |                                             |                                                                                                                                                                                                                                                                                                                                                                                                      |                                                                          |                                                                                                            |                                                                           |                                |
| <b>Activity 3.3.1.</b> Sensitization, awareness raising and environmental education | Lead: The Consortium<br>Cio-lead: The media | -Awareness building on the environment, biodiversity, climate change, livelihood and humanity, conservation restoration particular mangroves protection                                                                                                                                                                                                                                              | Population perception and their engagements in environmental and natural | Mangrove dependent communities, Community Forest Communities                                               | -Miss-information<br>- Refusal to comply                                  | - Motivation and compensations |

| Activity<br>(Start & End year)                                                                              | Responsibility (Lead and Co-lead) | Definition, justification and methodology                                                                                             | Indicator for Measuring Performance | Target for Indicator(s)                                          | Risk factor for the activity and risk level in terms of low, medium, high | Risk mitigation measure    |
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|                                                                                                             |                                   | -Establishment of bird sanctuaries (30m*30m) in schools: fenced with metal, trees planted, a water pool, bird platform and bird nest. | resource initiatives                | (CFC), Schools, government and private institutions              |                                                                           |                            |
| <b>Result 3.4.</b> Improve the infrastructural development and operational capacity of existing eco-centre  |                                   |                                                                                                                                       |                                     |                                                                  |                                                                           |                            |
| <b>Activity 3.4.1.</b> Improve the infrastructural development and operational capacity of existing centres | The consortium                    | Bio-climate Education and Research Centre (BERC)                                                                                      | Physical building                   | Operating office space and accommodation facilities for visitors | medium                                                                    | Fencing centre, a watchman |
| <b>Component 4: Restoration of the mangrove landscape</b>                                                   |                                   |                                                                                                                                       |                                     |                                                                  |                                                                           |                            |
| <b>Result 4.1.</b> A comprehensive map of mangrove areas is produced                                        |                                   |                                                                                                                                       |                                     |                                                                  |                                                                           |                            |
| <b>Activity 4.1.1.</b> Acquisition of satellite imageries                                                   | NEA                               | High resolution satellite imageries (Landsat, Spot 6/7, etc.) will be acquired                                                        | Availability and quality of images  | High quality images                                              | medium                                                                    | High quality images        |

| Activity<br>(Start & End year)                                                                                              | Responsibility (Lead and Co-lead)               | Definition, justification and methodology                                                                                             | Indicator for Measuring Performance | Target for Indicator(s)      | Risk factor for the activity and risk level in terms of low, medium, high | Risk mitigation measure                         |
|-----------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------|------------------------------|---------------------------------------------------------------------------|-------------------------------------------------|
| <b>Activity 4.1.2.</b> Ground truthing                                                                                      | NEA                                             | Ground control points to covered all mangrove areas                                                                                   | Number of points                    | Project areas covered        | medium                                                                    | Qualified staff                                 |
| <b>Activity 4.1.3.</b> Image processing & map production                                                                    | NEA                                             | Processing software to produce images                                                                                                 | Quality of maps produced            | High quality maps produced   | Medium                                                                    | Qualified staff                                 |
| <b>Result 4.2. Train institutional personnel on the use of ROAM (Restoration Opportunities Assessment Methodology) tool</b> |                                                 |                                                                                                                                       |                                     |                              |                                                                           |                                                 |
| <b>Activity 4.2.1.</b> Training of conservation services and other stakeholders in ROAM techniques                          | Lead: Bonn Challenge Focal Points & consultants | Staff and actors trained on ROAM techniques                                                                                           | Number of staff and actors trained  | Key staff and actors trained | Medium                                                                    | Qualified trainers                              |
| <b>Result 4.3.</b> Improved Coastal Infrastructure to reduce mangrove dieback through hydrological restoration              |                                                 |                                                                                                                                       |                                     |                              |                                                                           |                                                 |
| <b>Activity 4.3.1.</b> Improve coastal infrastructure in favour of tidal circulation                                        | Lead: NRA and Gamworks                          | Densify all road networks passing through mangrove areas with culvert placed at least 100m intervals and windowing dykes for flushing | Number of densification of culverts | At least 1 per 100m          | High                                                                      | Strict supervision and compliance of contractor |

| Activity<br>(Start & End year)                                                                                                                         | Responsibility (Lead and Co-lead) | Definition, justification and methodology                                                                                                   | Indicator for Measuring Performance                             | Target for Indicator(s)                | Risk factor for the activity and risk level in terms of low, medium, high | Risk mitigation measure         |
|--------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------|----------------------------------------|---------------------------------------------------------------------------|---------------------------------|
| <b>Result 4.4.</b> The degraded mangrove areas are reforested to restore ecological connectivity                                                       |                                   |                                                                                                                                             |                                                                 |                                        |                                                                           |                                 |
| <b>Activity 4.4.1.</b> Establish mangrove Tree nurseries in key communities in each site to be used to replaced dead trees in reforestation activities | Lead: Parks & Wildlife Forestry   | Nursery will be established near various restoration within project intervention sites                                                      | Number of nursery established and number of seedling propagated | At least all project sites covered     | High                                                                      | Strict supervision              |
| <b>Activity 4.4.2.</b> Establish community woodlots                                                                                                    | Lead: Sahel Consortium            | Woodlots of size 2 ha fenced and middle by a well will be planted with fast growing trees for fuel and timber                               | Number woodlots and tree density                                | At least 40 woodlots in 40 communities | Bush fire<br>Encroachment<br>Water scarcity                               | Fencing<br>Install a solar bore |
| <b>Activity 4.4.3.</b> Establish community vegetable gardens                                                                                           | Lead: Sahel Consortium            | Vegetable gardens of size 2 ha fenced and middle by a well will be planted with common grown vegetables with dispersed soil improving trees | Number of gardens                                               | At least 80 woodlots in 80 communities | Bush fire<br>Encroachment<br>Water scarcity                               | Fencing<br>Install a solar bore |

| Activity<br>(Start & End year)                                                                                                                                                                                                         | Responsibility (Lead and Co-lead)                                  | Definition, justification and methodology                                                                                                  | Indicator for Measuring Performance        | Target for Indicator(s)                | Risk factor for the activity and risk level in terms of low, medium, high | Risk mitigation measure         |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------|----------------------------------------|---------------------------------------------------------------------------|---------------------------------|
| <b>Activity 4.4.4.</b> Establish community Agroforestry farms of indigenous and fast growing trees                                                                                                                                     | Lead: Sahel Consortium                                             | Agroforestry farms of size 2 ha fenced and middle by a well and with a mix of indigenous trees both forest and fruits, fodders and fibers. | Number of agroforestry farms               | At least 45 woodlots in 45 communities | Bush fire<br>Encroachment<br>Water scarcity                               | Fencing<br>Install a solar bore |
| <b>Activity 4.4.5.</b> Reforestation of degraded sites through natural and artificial regeneration techniques with participation of local communities within the degraded areas from year 1 to year 5; on a yearly rate of 100 ha/year | Lead: Sahel Consortium,<br>Schools, mangrove dependent communities | Degraded mangrove areas planted                                                                                                            | Number of hectares planted                 | At least 10000 ha in 5 years           | Lack of community participation                                           | Motivation                      |
| <b>Activity 4.4.6.</b> Engagement of urban municipalities to clean mangrove areas                                                                                                                                                      | DPWM Consortium<br>KMC in Tambi police                             | Logistic assistance will be provided to the highly equipped KMC in Tambi to clean the affected areas and support other communities         | Quality of cleaning                        | At least 75% cleaned                   | Lack of participation                                                     | Mobilization & motivation       |
| <b>Result 4.5.</b> Restored mangroves effectively monitored                                                                                                                                                                            |                                                                    |                                                                                                                                            |                                            |                                        |                                                                           |                                 |
| <b>Activity 4.5.1.</b> Support monitoring of restored mangrove stands on established Permanent Sample Plots (PSPs)                                                                                                                     | Consortium<br>Project Technical implementation units               | Re-measurement of existing PSPs at least every 5 years                                                                                     | Coverage of sites<br>Verified Carbon units | Effective and frequent measurements    | Irregular monitoring                                                      | Monitoring plan in place        |

| Activity<br>(Start & End year)                                                            | Responsibility (Lead and Co-lead) | Definition, justification and methodology | Indicator for Measuring Performance | Target for Indicator(s) | Risk factor for the activity and risk level in terms of low, medium, high | Risk mitigation measure |
|-------------------------------------------------------------------------------------------|-----------------------------------|-------------------------------------------|-------------------------------------|-------------------------|---------------------------------------------------------------------------|-------------------------|
| <b>Component 5: Project effectively managed and monitored in a cost-effective Manner.</b> |                                   |                                           |                                     |                         |                                                                           |                         |
| <b>Result 5.1:</b> Project effectively managed and monitored                              |                                   |                                           |                                     |                         |                                                                           |                         |
| <b>Result 5.2.</b> Project results and lessons learned reported and disseminated          |                                   |                                           |                                     |                         |                                                                           |                         |

## Annex 5: Stakeholders analysis and Engagement strategy

| Stakeholder analysis and engagement strategy                                            |                                                                                                                                                                                                                                                                                                                    |                                                                                                                                                                                                                                                                        |                                                                                                                                                                                                                                                                                                                                                                                                                          |                                                                                                                                                                                                                                                                                                        |                                                                                                                                                                                                                                                          |
|-----------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Stakeholder                                                                             | Interest of the SH in the project                                                                                                                                                                                                                                                                                  | Potential influence of the SH on the project (low to very high)                                                                                                                                                                                                        | Impact of the project on the SH (Low to very high)                                                                                                                                                                                                                                                                                                                                                                       | How to engage during design process                                                                                                                                                                                                                                                                    | How to engage in project (early ideas)                                                                                                                                                                                                                   |
| <b>Government agencies (national, regional, local)</b>                                  |                                                                                                                                                                                                                                                                                                                    |                                                                                                                                                                                                                                                                        |                                                                                                                                                                                                                                                                                                                                                                                                                          |                                                                                                                                                                                                                                                                                                        |                                                                                                                                                                                                                                                          |
| <b>Ministry of the Environment, Climate Change and Natural Resources (MINECNR)</b>      | MINECNR; Project beneficiary. Governing body responsible for the management of the environment and the rational exploitation of natural resources. Body in charge of climate change policies and strategies.<br><br>Entry point for climate related issues                                                         | Very high influence – The project can only work in the project areas when endorsed by the SH. The SH is the responsible authority for managing the environment and natural resources in The Gambia. Project is endorsed by the Minister through and exclusivity letter | Very high – project working to improve the SH management of natural resource and the sustainable implementation of climate and environmental policies in the landscape through capacity building, institutional development, conservation and ecosystem restoration. Project will contribute to the realisation of international obligations and national determinations: e.g. The Bonn challenge, INDC, Paris agreement | Project proponent share project concept, budget categories with SH. When funding available, PP obtain endorsement from SH for implementation. Also have the Permanent Secretary at the Ministry of the Environment to chair the project steering committee. The minister signed the endorsement letter | They signed the exclusivity and endorsed the project facilitating project development, implementation, project Monitoring, development of REDD+ policy, enforcement of environmental laws and overall management of the environment and natural resource |
| <b>Department of Parks and Wildlife Management and Biodiversity Conservation (DPWM)</b> | Governing body responsible for the management of all protected areas<br>Provision of eco-guards towards law enforcement, issuing of licences and official authorisations necessary for field investigations, facilitate compliance of all stakeholders to project agreements within protected areas                | Very high influence – The project can only work in the project areas when endorsed by the SH. The SH is the responsible authority for managing all national parks, forest reserves and ICCA.<br><br>Focal points of RAMSAR convention and MPA (marine protected areas) | Very high– project working to improve the SH management of the protected areas in the landscape through the capacity building of its Conservators and Eco-guards, and in the provision of equipment and other resources for improved management.                                                                                                                                                                         | Project proponent share project concept, budget categories with SH. When funding available, PP obtain endorsement from SH for implementation.                                                                                                                                                          | Facilitating implementation, project Monitoring, law enforcement, overall management of the protected areas, forest reserves and ICCA                                                                                                                    |
| <b>Department of Agriculture (DoA)</b>                                                  | DoA; project beneficiary. Governing body responsible for the management of all project related to livestock, fisheries, and animal industries in<br>Provision of technical expertise on fishery management committees, management of no fishing zones, and the development of CBOs the communities by provision of | High – Without the endorsement of the SH, implementation of field investigations especially in fish markets would be difficult to attain. The MINAFWR therefore facilitate some technical and operational implementation of certain activities.                        | High – Project will improve the understanding of the state of certain endangered species of fishes through the obtention of valuable data, which will permit the SH to better engage with fishing communities on sustainable practices to improve protection. As a result, the SH will be complementing conservation efforts.                                                                                            | Need assessment of resource gap in habitat management, wildlife monitoring, and identification of priority areas for community intervention and activities. Facilitating role between communities and project proponent.                                                                               | Facilitation in project implementation, monitoring and evaluation.                                                                                                                                                                                       |

| Stakeholder analysis and engagement strategy |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                                                                                                                                                                                                                                                                                                                        |                                                                                                                                                                                                                                                                                                                                                                                                           |                                                                                                                                                                                                                          |                                                                               |
|----------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------|
| Stakeholder                                  | Interest of the SH in the project                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | Potential influence of the SH on the project (low to very high)                                                                                                                                                                                                                                                                        | Impact of the project on the SH (Low to very high)                                                                                                                                                                                                                                                                                                                                                        | How to engage during design process                                                                                                                                                                                      | How to engage in project (early ideas)                                        |
|                                              | official authorisations necessary for works and field investigations in the collection of fish data in fish markets.<br>Inventories on fisheries and agriculture data within the mangrove landscape                                                                                                                                                                                                                                                                                                                 | MINAFWR will facilitate technical and operational implementation of activities.                                                                                                                                                                                                                                                        | The project will also ensure monitoring of fisheries activities                                                                                                                                                                                                                                                                                                                                           |                                                                                                                                                                                                                          |                                                                               |
| National Environmental Agency (NEA)          | NEA: ; project beneficiary, Technical body working closely with the Ministry of the Environment, Climate Change and Natural Resource in the management of the environment;                                                                                                                                                                                                                                                                                                                                          | Medium – The project can only work in the project areas when endorsed by the SH. The SH is the responsible body providing technical assistance with regards to environmental management                                                                                                                                                | Medium – Project will improve the management capacity of the SH through trainings, exchange programmes and capacity building workshops                                                                                                                                                                                                                                                                    | Need assessment of the Agency; engage the SH in all aspects related to ICT/GIS and policy development;                                                                                                                   | Facilitation in inventory, project implementation, monitoring and evaluation. |
| Department of Forestry (DoF)                 | DoF; project beneficiary. Governing body responsible for the management of all project related to livestock, fisheries, and animal industries in Provision of technical expertise on fishery management committees, management of no fishing zones, and the development of CBOs the communities by provision of official authorisations necessary for works and field investigations in the collection of fish data in fish markets.<br>Inventories on fisheries and agriculture data within the mangrove landscape | High – Without the endorsement of the SH, implementation of field investigations especially in fish markets would be difficult to attain. The MINAFWR therefore facilitate some technical and operational implementation of certain activities.<br><br>MINAFWR will facilitate technical and operational implementation of activities. | Very high – Project will improve the understanding of the state of certain endangered species of fishes through the obtention of valuable data, which will permit the SH to better engage with fishing communities on sustainable practices to improve protection. As a result, the SH will be complementing conservation efforts.<br><br>The project will also ensure monitoring of fisheries activities | Need assessment of resource gap in habitat management, wildlife monitoring, and identification of priority areas for community intervention and activities. Facilitating role between communities and project proponent. | Facilitation in project implementation, monitoring and evaluation.            |

| <b>Stakeholder analysis and engagement strategy</b> |                                                                                                                                                                                                                                                           |                                                                                                                                                                 |                                                                                                                                                                                                                                                               |                                                                                                                                                                                                                                      |                                                                                                                                                 |
|-----------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Stakeholder</b>                                  | <b>Interest of the SH in the project</b>                                                                                                                                                                                                                  | <b>Potential influence of the SH on the project (low to very high)</b>                                                                                          | <b>Impact of the project on the SH (Low to very high)</b>                                                                                                                                                                                                     | <b>How to engage during design process</b>                                                                                                                                                                                           | <b>How to engage in project (early ideas)</b>                                                                                                   |
| Ministry of Tourism (MINT)                          | MINT: Project beneficiary; Body working closely with communities to promote their culture                                                                                                                                                                 | High– Without the endorsement of the SH, implementation of touristic activities will not be possible<br>Participate in the steering committee                   | High– Project will promote community ecotourism enabling the SH to gain training and further establish a value change to attract tourists                                                                                                                     | Need assessment in the tourism sector, gaps in habitat management, wildlife monitoring, and identification of the priority communities for intervention and activities. Facilitating role between communities and project proponent. | Facilitation in project implementation, monitoring and evaluation.                                                                              |
| Ministry of Local Government (MINLG)                | MINLG: Project beneficiary; Body working closely with communities to promote community development                                                                                                                                                        | Very high- Without the endorsement of the SH, implementation of the project activities will not be possible.<br>Direct project implementation                   | Very high: The project will support the development of alternative livelihood enhancement and community development<br>Participating in the advisory committee, demarcation and documentation                                                                 | Need assessment of resource gap in habitat management, wildlife monitoring, and identification of the priority communities for intervention and activities. Facilitating role between communities and project proponent.             | Facilitation in project implementation, monitoring and evaluation.                                                                              |
| Kauifuip Municipality                               | Project beneficiary.<br>Acknowledges the presence of the project within its jurisdiction, approves the holding of meetings/workshops/conferences, issues communiques to communities on different subject of interest and a call for compliance as need be | Medium-The SH will influence decision taking and lead community members in environmental education and cleaning programs within the Tanbi Wetland National Park | Very high- The project will promote environmentally healthy habits in this area; reducing health risk from pollution; thus restoring the aesthetic state of the area. This will boost the morale of the SH and might contribute to the SH longevity in office | Need assessment of resource gap in habitat management, wildlife monitoring, and identification of the priority communities for intervention and activities. Facilitating role between communities and project proponent.             | Engage SH in the project cycle; particularly in reforestation, mangrove cleaning (school clubs) and other conservation actions within the area. |

| <b>Stakeholder analysis and engagement strategy</b> |                                                                                                                                                                                                                                                                                                                                        |                                                                                                                                                                                                                                                           |                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                                                                                                                                                                                                          |                                                                                                     |
|-----------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------|
| <b>Stakeholder</b>                                  | <b>Interest of the SH in the project</b>                                                                                                                                                                                                                                                                                               | <b>Potential influence of the SH on the project (low to very high)</b>                                                                                                                                                                                    | <b>Impact of the project on the SH (Low to very high)</b>                                                                                                                                                                                                                                                                                                                                                                            | <b>How to engage during design process</b>                                                                                                                                                                               | <b>How to engage in project (early ideas)</b>                                                       |
| <b>The Regional Governor (RG)</b>                   | Project beneficiary. Acknowledges the presence of the project within its jurisdiction, approves the holding of meetings/workshops/conferences, issues communiques to communities on different subject of interest and a call for compliance as need be.                                                                                | Medium – The Regional Governor is a direct representation of the government at the Region. Its endorsement is very valuable to the implementation of all project activities planned for within the communities.                                           | High– project is supporting for wildlife conservation, sustainable forest management and community development (Climate Smart Initiative sustainable income generation) in and around national parks and ICCA which is a prime interest of the Governor towards his Region. The project will address the areas where there is a gap and would be complementing the Governor’s primary objective.                                     | Need assessment of resource gap in habitat management, wildlife monitoring, and identification of the priority communities for intervention and activities. Facilitating role between communities and project proponent. | Facilitation in project implementation, monitoring and evaluation.                                  |
| <b>District Chief (DC)</b>                          | DC; Project beneficiary. Acknowledges the presence of the project within its jurisdiction, approves the holding of meetings/workshops/conferences, issues communiques to communities on different subject of interest and a call for compliance as need be.<br><br>Interested in the success of the project for the good of his people | Medium – The DC is a direct representation of the government in the District. Its endorsement is very valuable to the implementation of all project activities planned for within the communities.<br><br>Political support, and mobilizing participation | High – project is supporting for wildlife conservation, sustainable forest management and community development (Climate Smart Initiative sustainable income generation) in and around national parks and ICCA which is a prime interest of the DC towards his District. The project will address the areas where there is a gap and would be complementing the DC’s primary objective and will improve the livelihood of his people | Need assessment of resource gap in habitat management, wildlife monitoring, and identification of the priority communities for intervention and activities. Facilitating role between communities and project proponent. | Consult the DC and include him as facilitator in project implementation, monitoring and evaluation. |

| <b>Stakeholder analysis and engagement strategy</b>                                                                                                                                                                      |                                                                                                                                                                                                                                                                                                                                            |                                                                                                                                                                                                                                                                                                                        |                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                                                                                                                                                                                                                                                                                                         |                                                                    |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------|
| <b>Stakeholder</b>                                                                                                                                                                                                       | <b>Interest of the SH in the project</b>                                                                                                                                                                                                                                                                                                   | <b>Potential influence of the SH on the project (low to very high)</b>                                                                                                                                                                                                                                                 | <b>Impact of the project on the SH (Low to very high)</b>                                                                                                                                                                                                                                                                                                                                                                                                | <b>How to engage during design process</b>                                                                                                                                                                                                                                                              | <b>How to engage in project (early ideas)</b>                      |
| <b>Member of Parliament (MP)</b>                                                                                                                                                                                         | MP; Project beneficiary. Acknowledges the presence of the project within its locality approves the holding of meetings/workshops/conferences, issues communiques to communities on different subject of interest and a call for compliance as need be. He presents actions related to development and legislation to the national assembly | High: The MP office is a direct representation of the interest of the mangrove communities. Its endorsement is very valuable to the implementation of all project activities planned for within the communities.<br><br>They can influence proper implementation of project activities and the development of policies | High – project is supporting for wildlife conservation, sustainable forest management and community development (Climate Smart Initiative sustainable income generation) in and around national parks and ICCA which is a prime interest of the AC towards his community. The project will address the areas where there is a gap and would be complementing the primary objective of the parliamentarian. This will be useful in his political campaign | Need assessment of resource gap in habitat management, wildlife monitoring, and identification of the priority communities for intervention and activities. Assessment of the status of various land use and resource management policies. Facilitating role between communities and project proponent. | Facilitation in project implementation, monitoring and evaluation. |
| <b>Ward Counsellor (AC)</b>                                                                                                                                                                                              | WC; Project beneficiary. Acknowledges the presence of the project within its locality approves the holding of meetings/workshops/conferences, issues communiques to communities on different subject of interest and a call for compliance as need be.                                                                                     | High: The WC office is a direct representation of the interest of the mangrove communities. Its endorsement is very valuable to the implementation of all project activities planned for within the communities.                                                                                                       | High – project is supporting for wildlife conservation, sustainable forest management and community development (Climate Smart Initiative sustainable income generation) in and around national parks and ICCA which is a prime interest of the AC towards his community. The project will address the areas where there is a gap and would be complementing the AC's primary objective.                                                                 | Need assessment of resource gap in habitat management, wildlife monitoring, and identification of the priority communities for intervention and activities. Facilitating role between communities and project proponent.                                                                                | Facilitation in project implementation, monitoring and evaluation. |
| <b>Village Head (Alkalo):</b> (Nyanmina Pennisula, Nyanmina , Nyaleja, Salum, Dieuli, Bankam, Canoman, Medeconda, Tambana, Karantoba, Jiancka 1 & 2, Daselami, Bakang, Cape Point Creek, Banjul Area, Jokuda, Njifarong, | Mangrove communities/Sites; Principal project beneficiary. Acknowledges the presence of the project within its locality approves and participate meetings/workshops/conferences, issues communiques to communities on different subject of interest and a call for compliance as need be.                                                  | Very high: The Local council office is a direct representation of the interest of the local communities. Its endorsement is very valuable to the implementation of all project activities planned for within the communities.<br><br>To ensure the enhancement of the livelihood of his people                         | Very high – project is supporting for wildlife conservation and community livelihood (Climate Smart Initiative sustainable income generation) in and around national parks and ICCA which is a prime interest of the community head towards its communities. The project will address the areas where there is a gap and would be                                                                                                                        | Need assessment of resource gap in habitat management, wildlife monitoring, and identification of the priority communities for intervention and activities. Facilitating role between communities and project proponent.                                                                                | Facilitation in project implementation, monitoring and evaluation. |

| Stakeholder analysis and engagement strategy                                                                                                                                    |                                                                                                                |                                                                                                                                                                                                  |                                                                                                                                                                                                                                                                                                                                   |                                                                                                                                                                                                    |                                                                                                                                                             |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Stakeholder                                                                                                                                                                     | Interest of the SH in the project                                                                              | Potential influence of the SH on the project (low to very high)                                                                                                                                  | Impact of the project on the SH (Low to very high)                                                                                                                                                                                                                                                                                | How to engage during design process                                                                                                                                                                | How to engage in project (early ideas)                                                                                                                      |
| Bricamanding, Kartong, Canaba, Mandoua (Mudflats), Katong, Cifor, Sanyang, Faraba, Kasigne, Bondalier, Kalagi, Kerewa, banfanjang, Sutsinjong, dengbanbg, Kafuta, Lame, Dieurem |                                                                                                                |                                                                                                                                                                                                  | complementing the community primary objective.                                                                                                                                                                                                                                                                                    |                                                                                                                                                                                                    |                                                                                                                                                             |
| <b>The Police Department</b>                                                                                                                                                    | Project stakeholder; support park authorities in law enforcement activities in and around the protected areas. | Low – The National Police will be solicited by Eco-guards in the event of an arrest and in the unlikely event of an increase in insecurity in the park and especially in the nearby communities. | Low – project is supporting to enhance their capacity in wildlife conservation, protected area management, ecological features of each protected areas and role of local community in wildlife conservation. The project will be promoting law abiding by community residents which is an objective for the National Gendarmerie. | There will be no direct engagement of the National Gendarmerie; the Conservators of both protected areas will however be solely responsible for consulting and engaging the SH as the need arises. | No direct involvement but training, and other law enforcement initiatives will be developed together with the conservator and the project coordination unit |

| <b>Stakeholder analysis and engagement strategy</b>             |                                                                    |                                                                                                                                                                                                                                   |                                                                                                                                                                                                                                                                                                             |                                                                                                                                                           |                                               |
|-----------------------------------------------------------------|--------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------|
| <b>Stakeholder</b>                                              | <b>Interest of the SH in the project</b>                           | <b>Potential influence of the SH on the project (low to very high)</b>                                                                                                                                                            | <b>Impact of the project on the SH (Low to very high)</b>                                                                                                                                                                                                                                                   | <b>How to engage during design process</b>                                                                                                                | <b>How to engage in project (early ideas)</b> |
| <b>Women</b>                                                    | Project beneficiary; All project sites: WCR, LRR, CRR, NBA and GRA | Very high – their consensus and support for the project are integral in achieving project activities. There will be pilot groups made entirely of women, while in other mix groups, women will hold 60% or more of the membership | Very high – the project will commit gender neutral activities and ensure women representation in decision making process.                                                                                                                                                                                   | Consultation for needs assessment and identification of suitable livelihood activities.<br><br>They will serve as project focal points in their community | Consultation                                  |
| <b>Farmers (Rice cultivators, Vegetable farmers and others)</b> | Project beneficiary; All project sites: WCR, LRR, CRR, NBA and GRA | Low – their consensus and support for the project are integral in achieving project activities.                                                                                                                                   | Very high – the project will contribute to improve the output and living standards of farmers in mangrove dependent communities and it's environ. There will be pilot who will be give support through the small grant fund to carry out their activities                                                   | Consultation for needs assessment and identification of suitable livelihood activities.<br><br>They will serve as project focal points in their community | Consultation                                  |
| <b>Fishermen, fisher women and fish smokers</b>                 | Project beneficiary; All project sites: WCR, LRR, CRR, NBA and GRA | Low – their involvement and support for the project are integral in achieving project activities. They constitute very important actors in the achievement of project objectives.                                                 | Very high – the project will contribute greatly in building a positive perception on conservation and resource extraction. They will be given support through the small grant fund which will improve their output and living standards of farmers in mangrove dependent communities adjacent environments. | Consultation for needs assessment and identification of suitable livelihood activities.<br><br>They will serve as project focal points in their community | Consultation                                  |
| <b>Oyster collectors</b>                                        | Project beneficiary; All project sites: WCR, LRR, CRR, NBA and GRA | Low – their involvement and support for the project are integral in achieving project activities; even though they constitute very important actors in the achievement of project objectives.                                     | Very high – the project will contribute greatly in building a positive perception on conservation and resource extraction strategies. They will be given support through the small grant fund and training which will improve their output and living standards                                             | Consultation for needs assessment and identification of suitable livelihood activities.<br><br>They will serve as project focal points in their community | Consultation                                  |

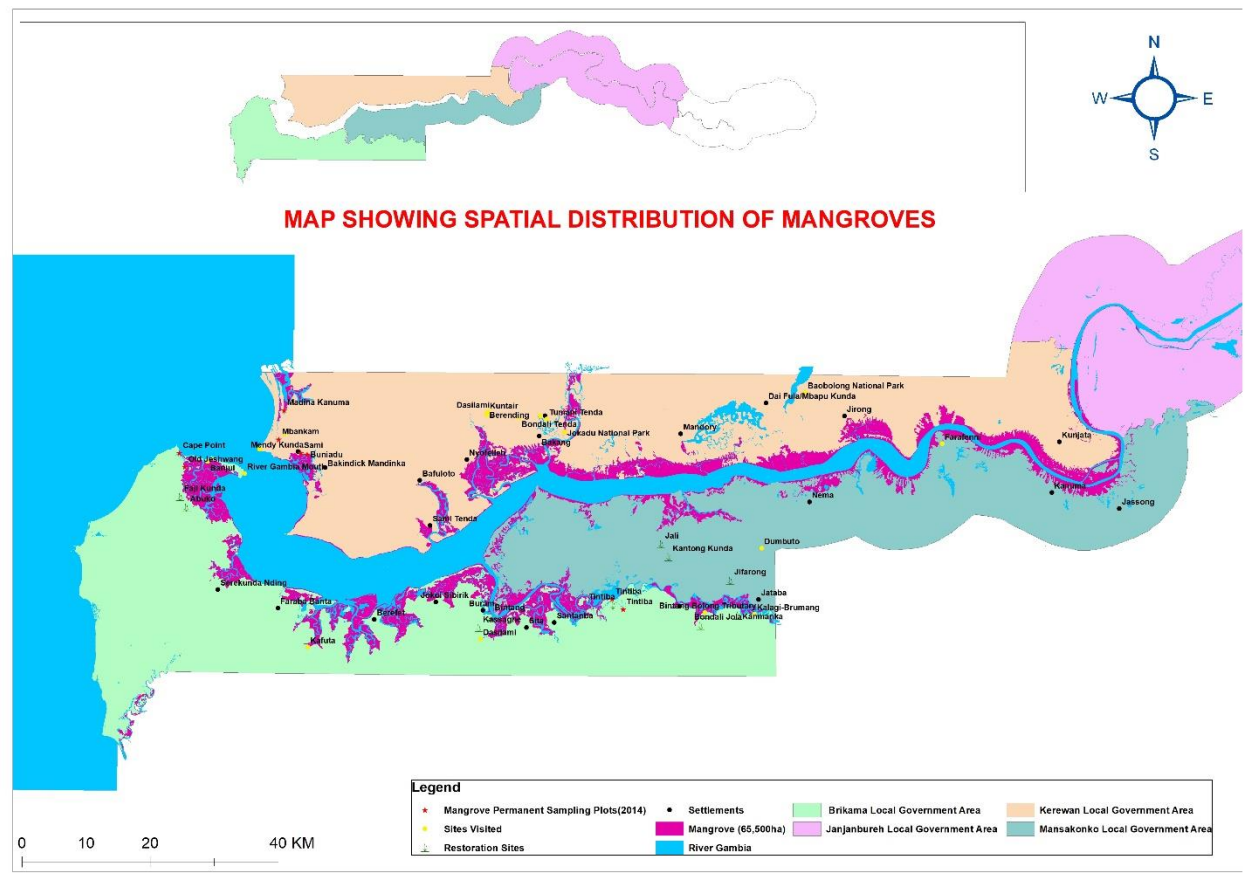
| <b>Stakeholder analysis and engagement strategy</b> |                                                                    |                                                                                                                                                          |                                                                                                                                                                                                                                                                                                               |                                                                                                                                                                                                       |                                               |
|-----------------------------------------------------|--------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------|
| <b>Stakeholder</b>                                  | <b>Interest of the SH in the project</b>                           | <b>Potential influence of the SH on the project (low to very high)</b>                                                                                   | <b>Impact of the project on the SH (Low to very high)</b>                                                                                                                                                                                                                                                     | <b>How to engage during design process</b>                                                                                                                                                            | <b>How to engage in project (early ideas)</b> |
| <b>Headsmen</b>                                     | Project beneficiary; All project sites: WCR, LRR, CRR, NBA and GRA | Low – their involvement is integral in achieving project objectives. Their activity is detrimental to the environment and to other livelihood activities | Very high – the project will contribute greatly in building a positive perception on conservation and strategies. They will be given support through the small grant fund and training on climate smart strategies which will improve their output and living standards                                       | Consultation for needs assessment and identification of suitable livelihood activities.<br><br>They will serve as project focal points in their community                                             | Consultation                                  |
| <b>Salt extractors</b>                              | Project beneficiary; All project sites: WCR, LRR, CRR, NBA and GRA | Low – their involvement is integral in achieving project objectives. Their activity is detrimental to the environment and biodiversity                   | Very high – the project will contribute greatly in building a positive perception on conservation and strategies. They will be given support through the small grant fund and training on climate smart strategies and alternative livelihood activities which will improve their output and living standards | Consultation for needs assessment and identification of suitable livelihood activities.<br><br>They will serve as project focal points in their community                                             | Consultation                                  |
| <b>Community Based Organisations (CBOs)</b>         | Project beneficiary; All project sites: WCR, LRR, CRR, NBA and GRA | Very high – their consensus and Support for the project are integral in achieving project activities.                                                    | Very high – the project will address access restriction and ensure representation in livelihood activities.                                                                                                                                                                                                   | Consultation for needs assessment, identification of potential risks due to access restriction and seek consent for project activities.<br>They will serve as project focal points in their community | Consultation                                  |
| <b>Vulnerable Groups</b>                            | Project beneficiary; All project sites: WCR, LRR, CRR, NBA and GRA | High– their consensus and support for the project are integral in achieving project activities                                                           | High – the project will address access restriction and ensure representation in livelihood activities.                                                                                                                                                                                                        | Consultation for needs Assessment, identification of potential risks due to access restriction and seek consent for project activities.                                                               | Consultation                                  |
| <b>Civil Society Organizations</b>                  |                                                                    |                                                                                                                                                          |                                                                                                                                                                                                                                                                                                               |                                                                                                                                                                                                       |                                               |
| <b>School</b>                                       | Awareness raising                                                  | Low – SH will help in meeting project's outreach component.                                                                                              | High – students will be made aware of the importance of biodiversity conservation.                                                                                                                                                                                                                            | None                                                                                                                                                                                                  | Conservation outreach programmes.             |

| Stakeholder analysis and engagement strategy       |                                                                                                                                                                                     |                                                                                                                           |                                                                                                                                                  |                                                                                                                                                                                                         |                                                                         |
|----------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------|
| Stakeholder                                        | Interest of the SH in the project                                                                                                                                                   | Potential influence of the SH on the project (low to very high)                                                           | Impact of the project on the SH (Low to very high)                                                                                               | How to engage during design process                                                                                                                                                                     | How to engage in project (early ideas)                                  |
| <b>Non-Governmental Organizations</b>              |                                                                                                                                                                                     |                                                                                                                           |                                                                                                                                                  |                                                                                                                                                                                                         |                                                                         |
| <b>Sahel Wetland Concern (SWC)</b>                 | Project Coordinator                                                                                                                                                                 | Very high-SH will ensure the Very high: efficient use of resources for the effective implementation of project activities | Positive-Coordination will assure Very high: the realisation of project objectives in time and the efficient use of resources                    | At the first stage of the project design                                                                                                                                                                | Project conception, development execution; to monitoring and evaluation |
| <b>Kombo Foni Forestry Association (KOMFFORA)</b>  | Lead organization on site activities. Will coordinate project activities within the South Bank of the River                                                                         | Very high: Project site lead                                                                                              | Very high: Project site lead                                                                                                                     | Project site lead                                                                                                                                                                                       | Project site lead                                                       |
| <b>West African Bird Study Association (WABSA)</b> | Lead organization on site activities. Will coordinate project activities within the North Bank of the River                                                                         | Very high : Project site lead                                                                                             | Very high : Project site lead                                                                                                                    |                                                                                                                                                                                                         |                                                                         |
| <b>Research institutions &amp; universities</b>    |                                                                                                                                                                                     |                                                                                                                           |                                                                                                                                                  |                                                                                                                                                                                                         |                                                                         |
| <b>University of The Gambia</b>                    | Project stakeholder; provide livelihood training and technical expertise to project activities especially on aquatic ecosystem, fishing methods, and sustainable fishing practices. | Low. The SH will provide technical guidance and training on forestry fisheries concepts to project villages.              | High. The SH will be fulfilling one of its objectives which is to offer field experience opportunities for students to gain practical knowledge. | When funding available, PP will work with SH for implementation                                                                                                                                         | Facilitation in the implementation of activities.                       |
| <b>The Gambia Forestry School</b>                  | Project SH; provide livelihood training and technical expertise to project activities especially in agroforestry, sustainable forest management, forest inventories and monitoring  | Low: The SH will provide technical guidance and training on forestry concepts                                             | Very high-SH will outreach and impact communities. SH will greatly empower these communities in developing their activities.                     | Consultation for needs assessment, identification of potential risks due to access restriction and seek consent for project activities. When funding available, PP will work with SH for implementation | Facilitation in the implementation of activities.                       |

| <b>Stakeholder analysis and engagement strategy</b>                                            |                                                                                                                                                                                                                                                                                    |                                                                                                                                                                                                                                                           |                                                                                                                               |                                                                                                                                        |                                                                                                                                                                                  |
|------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Stakeholder</b>                                                                             | <b>Interest of the SH in the project</b>                                                                                                                                                                                                                                           | <b>Potential influence of the SH on the project (low to very high)</b>                                                                                                                                                                                    | <b>Impact of the project on the SH (Low to very high)</b>                                                                     | <b>How to engage during design process</b>                                                                                             | <b>How to engage in project (early ideas)</b>                                                                                                                                    |
| <b>Universities and institutions in Cameroon and Ghana</b>                                     | Exchange programs: project SH provide livelihood training and technical expertise to project activities especially in agroforestry, sustainable forest management, forest inventories and monitoring and on aquatic ecosystem, fishing methods, and sustainable fishing practices. | Low: SH will provide training in the context of REDD+, forestry and fisheries; sustainable forest management and conservation                                                                                                                             | High: SH will train students and personnel; of institutions; thus building the technical and operational capacities of actors | <b>Consultation for needs assessment, identification of potential risks and opportunities and seek consent for project activities.</b> | Facilitation in the implementation of activities.                                                                                                                                |
| <b>Bio-climate Training Centre</b>                                                             | Project stakeholder; provide livelihood training and technical expertise to project activities especially on aquatic ecosystem, fishing methods, and sustainable fishing practices, agroforestry and sustainable forest management                                                 | Medium -SH will be in direct contact with the population providing them with technical support in the development and implementation of their activities in the context of Best Practices (BP)<br>Will train students on research and project development | High-SH will outreach and impact communities. SH will greatly empower these communities in developing their activities        | When funding available, PP will work with SH for implementation                                                                        | PP should put in place a Small Grant Project Fund (SGPF); through which SH can get funds and implement activity. This will follow a contract with the project steering committee |
| <b>KOMFFORA Training Centre for NTFPs Enterprises and Sustainable Environmental Management</b> | Project stakeholder; provide livelihood training and technical expertise to project activities especially on aquatic ecosystem, fishing methods, and sustainable fishing practices, agroforestry and sustainable forest management                                                 | Medium-SH will be in direct contact with the population providing them with technical support in the development and implementation of their activities in the context of Best Practices (BP)<br>Will train students on research and project development  | High-SH will outreach and impact communities. SH will greatly empower these communities in developing their activities        | When funding available, PP will work with SH for implementation                                                                        | PP should put in place a Small Grant Project Fund (SGPF); through which SH can get funds and implement activity. This will follow a contract with the project steering committee |
| <b>Agro-biodiversity Centre</b>                                                                | Project stakeholder; provide livelihood training and technical expertise to project activities especially on aquatic ecosystem, fishing methods, and sustainable fishing practices, agroforestry and sustainable forest management                                                 | High-SH will be in direct contact with the population providing them with technical support in the development and implementation of their activities in the context of Best Practices (BP)<br>Will train students on research and project development    | High-SH will outreach and impact communities. SH will greatly empower these communities in developing their activities        | When funding available, PP will work with SH for implementation                                                                        | PP should put in place a Small Grant Project Fund (SGPF); through which SH can get funds and implement activity. This will follow a contract with the project steering committee |

## Annex 6: GPS and map of sites visited during the field mission

| Location                 | Description                                                              | Latitude (North) |         |         | Longitude (West) |         |         | Altitude |
|--------------------------|--------------------------------------------------------------------------|------------------|---------|---------|------------------|---------|---------|----------|
|                          |                                                                          | Degree           | Minutes | Seconds | Degree           | Minutes | Seconds |          |
| Banjul                   | Settlement and mangroves                                                 | 13               | 27      | 56.2    | 16               | 37      | 19.6    | 14       |
| River Gambia Mouth       | South Bank, Ferry gateway                                                | 13               | 26      | 56.7    | 16               | 34      | 7.6     | 12       |
| River Gambia Mouth       | North Bank, Ferry gateway                                                | 13               | 28      | 59.9    | 16               | 32      | 51.3    | 11       |
| Barra Ferry Terminal     | Settlement                                                               | 13               | 29      | 1.5     | 16               | 32      | 49.1    | 7        |
| Niumi National Park      | Protected area                                                           | 13               | 30      | 19      | 16               | 30      | 40.1    | 6        |
| Kafuta                   | KOMFFORA Main intervention sites                                         | 13               | 12      | 13.8    | 16               | 28      | 32.7    | 10       |
| Dasilarmi                | SWC pilot activities: agroforestry                                       | 13               | 32      | 16.7    | 16               | 13      | 2.8     | 23       |
| Dasilarmi                | Restoration plots of SWC, WABSA, Wildlife                                | 13               | 13      | 0.3     | 16               | 13      | 38.7    | -1       |
| Bondali Tenda            | WABSA, SWC, KOMFFORA, DPWM intervention site                             | 13               | 31      | 48.1    | 16               | 10      | 22.4    | 37       |
| Bintang Bolong           | Dieback caused by poor road infrastructure and unsustainable aquaculture | 13               | 31      | 56      | 16               | 8       | 32.5    | 2        |
| Jokadu National Park     | Dieback caused by poor road infrastructure and unsustainable aquaculture | 13               | 30      | 35.4    | 16               | 6       | 25.5    | 2        |
| Bintang Bolong Tributary | Salt intrusion, presence of aquaponds, high mangrove regeneration        | 13               | 15      | 20.5    | 15               | 54      | 12.8    | 2        |
| Dumbuto                  | SWC main intervention site                                               | 13               | 20      | 48.9    | 15               | 49      | 20.1    | 42       |
| Tumani Tenda             | KOMFFORA Agroforestry farm                                               | 13               | 31      | 40.5    | 16               | 8       | 0.4     | 15       |
| Farafenni                | Transition zone between mangroves and rice fields                        | 13               | 29      | 43.2    | 15               | 33      | 44.6    | 5        |
| Baobolong National Park  | Poor road infrastructure, causing dieback: need for culverts             | 13               | 34      | 1       | 15               | 45      | 36.7    | 1        |
| Kuntair                  | DPWM project office, WABSA, SWC                                          | 13               | 32      | 11.9    | 16               | 13      | 8.9     | 24       |
| Tumani Tenda             | KOMFFORA Eco-camp                                                        | 13               | 13      | 5.4     | 16               | 28      | 24.2    | 6        |
| Kalagi and Brumang       | Road infrastructure, dieback, restoration works,                         | 13               | 15      | 12.3    | 15               | 49      | 57.1    | 10       |
| Berending                | WABSA Community Bird Sanctuary                                           | 13               | 32      | 2.1     | 16               | 13      | 10.5    | 21       |



## Annex 7: Attendance lists during field mission

### Annex 7a: Interactive discussions with consortium members



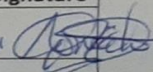
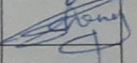
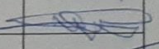
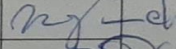
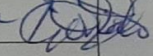


**Project: CONSERVATION OF THE MANGROVE ECOSYSTEM IN THE GAMBIA THROUGH THE REDD+ MECHANISM**

**Date:** 24/11/2020

**Location:** Hotel Baobab, Banjul, Serrekunda

**Object:** Site diagnosis, Review of Drivers of change, Pressures and Mitigation Activities, - Realisation of Site Visit Mission and Stakeholder (Local) Consultation Plan.

| N° | Name                     | Organization/Community               | Telephone N°       | E-mail                 | Signature                                                                            |
|----|--------------------------|--------------------------------------|--------------------|------------------------|--------------------------------------------------------------------------------------|
| 01 | Dr Gordon Agonina        | FWC Director                         | +237697754965      | gonajonina@hotmail.com |   |
| 02 | Mbacham Chenguai Chogu I | S2-Services<br>REACT Project Manager | +237653484062      | m.chenguai@s2-gmbh.com |   |
| 03 | Seerku Jansko            | KOMFORIA President                   | 7370775            | komforia@gmail.com     |   |
| 04 | Lamin Sobagete           | WABSA Executive<br>Director          | 7640262<br>9374734 | lamin.wabssa@yahoo.com |   |
| 05 | Kawsu Jammeh             | President<br>Sahelwet, DPWNY         | 2729223            | jammeh.kawsu@gmail.com |   |
| 06 | Dr Gordon Agonina        | FWC - Director                       | +237697754465      | gonajonina@hotmail.com |  |
|    |                          |                                      |                    |                        |                                                                                      |
|    |                          |                                      |                    |                        |                                                                                      |
|    |                          |                                      |                    |                        |                                                                                      |
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Project: CONSERVATION OF THE MANGROVE ECOSYSTEM IN THE GAMBIA THROUGH THE REDD+ MECHANISM

Date: 23/11/2020

Location: Banjul

Object: Finalisation of the mission plan with The Gambia Conservation and The Cameroon Conservation

| N° | Name                     | Organization/Community                     | Telephone N°      | E-mail                   | Signature   |
|----|--------------------------|--------------------------------------------|-------------------|--------------------------|-------------|
| ①  | Dr Gordon Ajajine        | FWC<br>Consultant<br>REDD+ Project Manager | +237<br>697754965 | gnajajine@hinet.com      | [Signature] |
| ②  | Mbachon Chengué Chogor I | S2-Services                                | 676484060         | m.chengué@S2<br>gmbh.com | [Signature] |
| ③  | Kawusu Jammeh            | Sahelwet                                   | 220 2779223       | jammeh.kawusu@gmail.com  | [Signature] |
| ④  | Scannabou Tallaw         | Sahelwet                                   | 2207909880        | scannabou@gmail.com      | [Signature] |
| ⑤  | Pateh Ceesay             | Sahelwet                                   | 2477998           | patehceesay@gmail.com    | [Signature] |
| ⑥  | Dr Gordon Ajajine        | FWC-Director                               | +237 697754965    | gnajajine@hinet.com      | [Signature] |
|    |                          |                                            |                   |                          |             |
|    |                          |                                            |                   |                          |             |
|    |                          |                                            |                   |                          |             |
|    |                          |                                            |                   |                          |             |

## Annex 7b: Meeting with sectorial ministries





Project: CONSERVATION OF THE MANGROVE ECOSYSTEM IN THE GAMBIA THROUGH THE REDD+ MECHANISM

**Date:** 26/11/2020

**Location:** Banjul, The Gambia

**Object:** Meeting with Sectorial Ministries/Institutions

| N° | Name                            | Organization/Community              | Telephone N°   | E-mail                   | Signature   |
|----|---------------------------------|-------------------------------------|----------------|--------------------------|-------------|
| 1  | Lamin B. Dibba                  | MECCAARR Min                        | 00220 7111550  | lamin61@outmen.com       | [Signature] |
| 2  | Dodon Traoré                    | NGA, Exe. Dire                      | 9961049        | ditra@ngg.com            | [Signature] |
| 3  | Momodou SORRE                   | FISHERIES DEPT. D. Director         | 00220 7721004  | mbailoss@hotmail.com     | [Signature] |
| 4  | Muhammed Jatta                  | DoF - Director                      | 987895         | muhammedjatta@gmail.com  | [Signature] |
| 5  | Babauding Sanyang               | DoF: C & E Unit                     | 7352316        | sanyangbaba@yahoo.com    | [Signature] |
| 6  | Mamadou L. Kassaw               | Dept of Parks<br>Director           | 3903511        | mkassaw2@gmail.com       | [Signature] |
| 7  | Lamin Jobarteh                  | WATSA Executive Director            | 7640262        | laminjobarteh@gmail.com  | [Signature] |
| 8  | Kawusu Jammeh                   | Sahel Wetlands Concern President    | 2779223        | jammeh.kawusu@gmail.com  | [Signature] |
| 9  | Dr Gordon Agamie                | FWC - Director                      | +237 69775496  | gordonagamie@redde.com   | [Signature] |
| 10 | Mbachin Chenguai<br>Chogu Hagan | S2-Services / REDD+ Project Manager | +237 656484069 | m.chenguai@s2-gambia.com | [Signature] |

## Annex 7c: Site visits



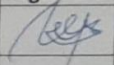


**Project:** CONSERVATION OF THE MANGROVE ECOSYSTEM IN THE GAMBIA THROUGH THE REDD+ MECHANISM

**Date:** 27<sup>th</sup> - 28<sup>th</sup> of November 2020

**Location:** Variable sites

**Object:** Site Contacts: Contacts Taken along the road during site visits.

| N° | Name             | Organization/Community                           | Telephone N° | E-mail                        | Signature                                                                            |
|----|------------------|--------------------------------------------------|--------------|-------------------------------|--------------------------------------------------------------------------------------|
| 01 | Mohammed Sanyang | Tomani Tenda (TT)<br>Fencing families / woodlots | 7588105      | —                             |   |
| 02 | Isatou Jatta     | Krafata / Krafara<br>A Voluntary worker          | 3483770      | Jatta Isatou 81a<br>gmail.com |  |
|    |                  |                                                  |              |                               |                                                                                      |
|    |                  |                                                  |              |                               |                                                                                      |
|    |                  |                                                  |              |                               |                                                                                      |
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|    |                  |                                                  |              |                               |                                                                                      |
|    |                  |                                                  |              |                               |                                                                                      |



Sahel Wetlands Concern  
Founded in 2007



Project: CONSERVATION OF THE MANGROVE ECOSYSTEM IN THE GAMBIA THROUGH THE REDD+ MECHANISM

Date: 27<sup>th</sup> November, 2020  
Location: Jumbutu Village

Object: Meeting with Mangroves Dependant Populace in Jumbutu Village

| N°  | Name                | Organization/Community                             | Telephone N° | E-mail               | Signature |
|-----|---------------------|----------------------------------------------------|--------------|----------------------|-----------|
| 1.  | Fatou Darboe        | Spot clearing - SWC<br>Fire prevention             | 3530882      |                      |           |
| 2.  | Yama Saiky          | Spot clearing - SWC<br>Controlled early burning    | 6526237      |                      |           |
| 3.  | Kaddy Colley        | Spot clearing - SWC<br>Controlled early burning    | 6233347      |                      |           |
| 4.  | Sarjo Darboe        | Fire prevention - SWC                              | 3732644      |                      |           |
| 5.  | Isaton Touray       | Fire prevention - SWC<br>Spot clearing             | 3837891      |                      |           |
| 6.  | Natoma Sanneh Jarju | Fire prevention - SWC                              | 3212673      |                      |           |
| 7.  | Fakebba Colley      | Fire prevention - SWC<br>community sensitization   | 6822180      |                      |           |
| 8.  | Nuha Darboe         | Nursery management - SWC<br>Fire prevention        | 6980326      |                      |           |
| 9.  | Bubakary Kinteh     | Agro-forest technician - SWC<br>Nursery supervisor | 2985537      | kintehjula@gmail.com |           |
| 10. | Alagie Jammeh       | Fire prevention<br>Spot clearing                   | 5360154      |                      |           |



Sahel Wetlands Concern  
Found in 2007



|    |                         |                                   |                    |                        |                 |
|----|-------------------------|-----------------------------------|--------------------|------------------------|-----------------|
| 10 | Jato Ceesay             |                                   | 5883003            |                        | info            |
| 11 | Berkay Seddy            |                                   | 5321994            |                        | <del>info</del> |
| 12 | Ousman Ceesay           |                                   | 2427522            |                        | info            |
| 13 | Lamin Jobarteh          | WRBSA Executive Director          | 764 0762           | Kurouq58@yaho.com      | info            |
| 14 | Kawru Jammeh            | SWC - President                   | 2779223            | Jammeh-Kawru@gmail.com | info            |
| 15 | Dr Gordon Agouma        | FWC - Director                    | +23769775465       | gagouma@cheat.com      | info            |
| 16 | Mbacham Chengué Chengué | S2-Services/REDD+ Project Manager | +237653 108 10 69- | m-chengué@redu.com     | info            |
|    |                         |                                   |                    |                        |                 |
|    |                         |                                   |                    |                        |                 |
|    |                         |                                   |                    |                        |                 |
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**Project: CONSERVATION OF THE MANGROVE ECOSYSTEM IN THE GAMBIA THROUGH THE REDD+ MECHANISM**

**Date:** 28/11/2020

**Location:** Jokadu National Park: Meeting with Jokadu Village Mangrove dependent population.

**Object:** Meeting with Jokadu Community / Site visit

| N° | Name                 | Organization/Community           | Telephone N° | E-mail                   | Signature |
|----|----------------------|----------------------------------|--------------|--------------------------|-----------|
| 1  | Mamuel Khan          | Kanu Faya V.A. chair             | 3805168      | mamuclKhan813@gmail.com  |           |
| 2  | Anta Bah             | V.D.C./klomen leader             | 2076141      |                          |           |
| 3  | fatoumata S.M. Barry | V.D.C./Vice chair                | 3019159      | barryfatoumata@gmail.com |           |
| 4  | Essa Marigo          | V.D.C./woodlot chair             | 3018753      |                          |           |
| 5  | Fatou Jah            | V.D.C./woodlot member            | 7648375      |                          |           |
| 6  | Isatu Conteh         | V.D.C./woodlot member            | 2602438      | contehisatou@gmail.com   |           |
| 7  | Fatou Jallow         | V.D.C./woodlot member            | 7046367      |                          |           |
| 8  | Musa Jarra           | V.D.C./woodlot programme officer | 7722500      |                          |           |
| 9  | Khuya Dumbuya        | V.D.C./woodlot manager           | 7612039      |                          |           |
| 10 | Maman Khan           | V.D.C./members                   | 3050799      |                          |           |



|    |           |                |                                     |                   |                         |     |
|----|-----------|----------------|-------------------------------------|-------------------|-------------------------|-----|
| 11 | Omar      | Dumbuya        | Village Members                     | 7368000           |                         |     |
| 12 | Samba     | Soule          | Village Members                     | 7017922           |                         | SS  |
| 13 | Musu      | Bah            | Village Members                     | 7857103           |                         | 131 |
| 14 | Burama    | Touray         | Village Member                      | 7988882           |                         | 14  |
| 15 | Baba      | Soule          | Village member                      |                   |                         | 15  |
| 16 | Babaly    | Ndong          | Village Member                      |                   |                         | 16  |
| 17 | Baba      | Sanneh         | Village Member                      |                   |                         | 17  |
| 18 | Baba      | Khan           | VDC Member                          | 3053276           | Khan Lubangwa@gmail.com | 18  |
| 19 | Alpha     | Khan           | Chief Tokadou                       | 7039319           | alphamoukhan@gmail.com  | 19  |
| 20 | Lamin     | Jouaate        | WASSA Executive Director            | 7640262           | lamin.jouaate@gmail.com | 20  |
| 21 | Kassu     | Jammeh         | SWC-President                       | 2779223           | Jammeh.kassu@gmail.com  | 21  |
| 22 | Dr Gordon | Aprius         | FWC-Director                        | +23769754965      | gnajonias@chickmail.com | 22  |
| 23 | Mbachon   | Changui Chagou | FW-Services / REACT Project Manager | +237 650 45 40 69 | m-changui252-goble.com  | 23  |



NATIONAL FORESTRY ASSOCIATION  
(NFGA)  
Gambia, West Coast Africa, The Gambia  
P.O. Box 10000, Banjul, The Gambia



Project: CONSERVATION OF THE MANGROVE ECOSYSTEM IN THE GAMBIA THROUGH THE REDD+ MECHANISM

Date: 01/12/2020

Location: Serrekunda, Beaches Holiday Resort, The Gambia

Subject: Workshop With Key Stakeholders: The Gambia Mangrove REDD+ Project

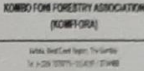
| N° | Name               | Organisation/Community | Function           | Telephone Number | Email                  | Signature |
|----|--------------------|------------------------|--------------------|------------------|------------------------|-----------|
| 1  | Ousman Mauneh      | GRTS                   | Reporter           | 2600064          | maunehous@gmail.com    |           |
| 2  | Baboucar Secka     | GRTS                   | Camera man         | 2593539          |                        |           |
| 3  | Madiba Sijah       | Foray                  | Foray              | 7082381          | madiba300@gmail.com    |           |
| 4  | Lamin Camara       | DWR                    | Hydrologist        | 3040071          | lankaddy807@gmail.com  |           |
| 5  | Sanyang wa Tiberah | ISA                    | DDP                | 9916342          | Sanyangwa@gmail.com    |           |
| 6  | Omar Samson        | UIS                    |                    | 5350319          | osamson@uij.edu.gm     |           |
| 7  | Lamin Kuyebi       | U.T.G                  |                    | 2650014          | lamin.kuyebi@gmail.com |           |
| 8  | Lamin Tiberah      | INRASSA                | Executive Director | 7640262          | Kuyebi@gmail.com       |           |
| 9  | Sarje N.N. Mannel  | NNP                    | Manager            | 3865156          | smannel71@gmail.com    |           |
| 10 | Secku Jansko       | KOWIFORA               | President          | 5134197          | SECKU49@gmail.com      |           |
| 11 | Sany Cham          | Women's Bureau         | MRE Officer        | 9992937          | Chamdemba@gmail.com    |           |

madiba  
300@gmail.com

## Annex 7d: Workshop





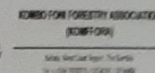

**Project: CONSERVATION OF THE MANGROVE ECOSYSTEM IN THE GAMBIA THROUGH THE REDD+ MECHANISM**

**Date:** 01/12/2008

**Location:** Serrekunda, Baobab Holiday Resort

**Subject:** Workshops (continue)

| N° | Name                  | Organisation/Community | Function                 | Telephone Number | Email                          | Signature   |
|----|-----------------------|------------------------|--------------------------|------------------|--------------------------------|-------------|
| 12 | MODOU NJIE            | INABSM                 | Admin/Finan              | 7777390          | kunolualsa@yahoo.com           | [Signature] |
| 13 | Alh. Munirou Nyam     | MKCEPG                 | Manager                  | 3173670          | alhasryanag@gmail.com          | [Signature] |
| 14 | Pateh Ceesay          | J.N.P                  | Prk. manager             | 247498           | Pateh. Ceesay@gmail.com        | [Signature] |
| 15 | Lamin Jc Njie         | B.W.R.                 | Park manager             | 7249995          | lcnjie321@gmail.com            | [Signature] |
| 16 | Alhagie Brima S Seyai | Kassange               | NFG                      | 3136397          |                                | [Signature] |
| 17 | Lamia Colley          | D.W.S.                 | prog. manager            | 7962843          | Bio Diversity: peace@gmail.com | [Signature] |
| 18 | Brina Camara          | AAFP                   | Coordinator              | 7924466          | pcamara33@gmail.com            | [Signature] |
| 19 | Isatou Jobe           | NEA                    | Senior Program Asst      | 7403261          | IsatouJobe112@gmail.com        | [Signature] |
| 20 | Baboucarr Jaaf        | forestry               | Surveyor                 | 3526751          | babrijaof22@gmail.com          | [Signature] |
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Sahel Wetlands Concern  
Founded in 2007



Project: CONSERVATION OF THE MANGROVE ECOSYSTEM IN THE GAMBIA THROUGH THE REDD+ MECHANISM

Date: 24/12/2020

Location: Baobab Holiday Resort

Object: Consolidation of Workshop information create Volunteers: Activity log frame and budgeting

| N° | Name                      | Organization/Community        | Telephone N°       | E-mail                    | Signature |
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|    |                           |                               |                    |                           |           |
|    |                           |                               |                    |                           |           |

## Annex 7e: Post Workshop synthesis and consolidation



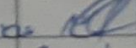
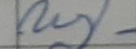
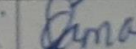


**Project:** CONSERVATION OF THE MANGROVE ECOSYSTEM IN THE GAMBIA THROUGH THE REDD+ MECHANISM

**Date:** 03/12/2020

**Location:** Baobabs Holiday Resort

**Object:** Consolidation of workshop findings with Volunteers and Consortium Members

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