

OKACOM



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**United Nations Development Programme**  
**Countries: Angola, Botswana and Namibia**

**PROJECT DOCUMENT<sup>1</sup>**

**Support to the Cubango-Okavango River Basin Strategic Action Programme Implementation**

UNDAF Outcome(s): n/a

**UNDP Strategic Plan Environment and Sustainable Development Primary Outcome:**

Outcome 2.5 Legal and regulatory frameworks, policies, and institutions enabled to ensure the conservation, sustainable use, and access and benefit sharing of natural resources, biodiversity and ecosystems, in line with international conventions and national legislation

**UNDP Strategic Plan Secondary Outcome:**

Outcome 1.3 Solutions developed at national and sub-national levels for sustainable management of natural resources, ecosystem services, chemicals, and waste

**Executing Entity/Implementing Partner: The Permanent Okavango River Basin Water Commission (OKACOM)**

**Implementing Entity/Responsible Partners:**

The project will support the implementation of the Strategic Action Programme for the Cubango-Okavango River Basin. The objective of the project is to strengthen the joint management and cooperative decision making capacity of the Cubango-Okavango River basin states on the optimal utilization of natural resources in the basin, with the aim to support the socio-economic development of the basin communities while sustaining the health of the basin ecosystems. The project has three components. Component 1: Basin Development Management Framework strengthening. Component 2: Environmentally Conscious Livelihoods and Socio-Economic Development Demonstration Projects. Component 3: Integrated Water Resource Management.

Programme Period:	54 month
Atlas Award ID:	<u>00090284</u>
Project ID:	<u>00096121</u>
PIMS #	<u>4755</u>
Start date:	January 2017
End Date	June 2021
Management Arrangement	IGO Implementation
PAC Meeting Date	6 Nov 2014

Total resources required	\$342,738,032
Total allocated resources:	\$342,738,032
• Regular	\$320,000 (UNDP Angola CO)
• Other:	
o GEF	\$6,100,000
o CapNet UNDP	\$300,000
o Government	\$298,636,354
o Other	\$35,130,467
(bi- and multi-lateral)	
o Other (private sector)	\$2,251,211

<sup>1</sup> For UNDP supported GEF funded projects as this includes GEF-specific requirements

Agreed by (Government of Angola):

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<i>Signature</i>	<i>Title</i>	<i>Date/Month/Year</i>
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Agreed by (Government of Botswana):

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<i>Signature</i>	<i>Title</i>	<i>Date/Month/Year</i>
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Agreed by (Government of Namibia):

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<i>Signature</i>	<i>Title</i>	<i>Date/Month/Year</i>
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Agreed by (OKACOM, Executing Entity/Implementing Partner):

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<i>Signature</i>	<i>Title</i>	<i>Date/Month/Year</i>
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Agreed by (UNDP):

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<i>Signature</i>	<i>Title</i>	<i>Date/Month/Year</i>
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## Table of Contents

<b>ACRONYMS</b> .....	<b>5</b>
<b>1. SITUATION ANALYSIS</b> .....	<b>6</b>
1.1 GENERAL DESCRIPTION OF THE CUBANGO-OKAVANGO .....	6
1.2 GLOBAL SIGNIFICANCE .....	6
1.3 THREATS, ROOT CAUSES, AND BARRIERS .....	7
1.4 BASIN GOVERNANCE – NATIONAL AND REGIONAL .....	8
1.5 BASELINE/ALTERNATIVE SCENARIOS.....	9
<b>2. STRATEGY</b> .....	<b>10</b>
2.1 GENERAL PROJECT STRATEGY .....	10
2.2 CAPACITY BUILDING AND VISIONING .....	11
2.3 SAP OPERATIONALIZATION .....	12
2.4 DEVELOPMENT SPACE .....	14
2.5 BASIN DEVELOPMENT AND MANAGEMENT FRAMEWORK.....	14
2.6 ECONOMIC ASSESSMENT - COST-BENEFIT ANALYSIS .....	17
2.7 TRANSBOUNDARY ENVIRONMENTAL ASSESSMENT (TBEA) .....	17
2.8 PROJECT OBJECTIVES .....	18
2.9 COMPONENT 1: BASIN DEVELOPMENT AND MANAGEMENT FRAMEWORK (BDMF) .....	18
2.10 COMPONENT 2: ENVIRONMENTALLY CONSCIOUS LIVELIHOODS AND SOCIO-ECONOMIC DEVELOPMENT DEMONSTRATION PROJECTS .....	24
2.11 COMPONENT 3: IWRM .....	28
<b>2.12 CROSS-CUTTING ISSUES - GENDER ANALYSIS AND STRATEGY</b> .....	<b>33</b>
<b>3. PROJECT RESULTS FRAMEWORK AND TOTAL BUDGET WORKPLAN</b> .....	<b>34</b>
3.1 PROJECT RESULTS FRAMEWORK .....	34
3.2 TOTAL BUDGET AND WORKPLAN .....	47
<b>4. MANAGEMENT ARRANGEMENTS</b> .....	<b>53</b>
<b>5. MONITORING FRAMEWORK AND EVALUATION</b> .....	<b>56</b>
<b>6. LEGAL CONTEXT</b> .....	<b>60</b>
<b>ANNEXES</b> .....	<b>61</b>
<b>ANNEX 1: DEMONSTRATION PROJECT DOCUMENTS</b> .....	<b>61</b>
DEMONSTRATION PROJECT 1: BASIN TOURISM DEVELOPMENT AND PARTNERSHIPS .....	61
DEMONSTRATION PROJECT 2: IMPROVING CONSERVATION AND SUSTAINABLE USE OF THE SHARED FISH RESOURCES OF THE CUBANGO-OKAVANGO RIVER BASIN THROUGH CO-MANAGEMENT APPROACH.....	86
DEMONSTRATION PROJECT 3: ENHANCING CLIMATE CHANGE RESILIENCE THROUGH ALTERNATIVE AGRICULTURAL PRACTICES .....	100
<b>ANNEX 1-1: RELEVANT INITIATIVES/PROJECTS AND POLICIES TO EACH SAP DEMONSTRATION PROJECT</b> .....	<b>113</b>
<b>ANNEX 1-2: OKAVANGO RIVER BASIN VULNERABILITY ASSESSMENT (AUGUST 2013)</b> .....	<b>117</b>
<b>ANNEX 1-3: TRANSBOUNDARY FISHERIES MANAGEMENT PLAN FOR THE CORB (JULY 2013)</b> .....	<b>117</b>
<b>ANNEX 1-4: OKACOM GENDER STRATEGY (APRIL 2015)</b> .....	<b>117</b>
<b>ANNEX 2: PAYMENT FOR ECOSYSTEM SERVICES CONCEPT PAPER</b> .....	<b>118</b>
<b>ANNEX 2-1: PROPOSAL FOR THE CORB SEDIMENTATION STUDY</b> .....	<b>119</b>
<b>ANNEX 3: TERMS OF REFERENCE</b> .....	<b>120</b>
<b>ANNEX 4: CEO ENDORSEMENT REQUEST</b> .....	<b>125</b>
<b>ANNEX 5: GEF TRACKING TOOL</b> .....	<b>125</b>
<b>ANNEX 6: UNDP SOCIAL AND ENVIRONMENTAL SCREENING PROCEDURE</b> .....	<b>125</b>



## Acronyms

BDMF	Basin Development Management Framework
CBNRM	Community Based Natural Resources Management
CBO	Community Based Organisation
CRIDF	Climate Resilient Infrastructure Development Facility
CORB	Cubango-Okavango River Basin
DSS	Decision Support System
EPSMO	Environmental Protection and Sustainable Management of Okavango River Basin project
GW	Ground Water
IFA	Integrated Flow Assessment
IMS	Information Management System
IWRM	Integrated Water Resources Management
M&E	Monitoring and Evaluation
NCU	National Coordination Unit
NAP	National Action Plan
OBSC	Okavango Basin Steering Committee
ODRS	Okavango Delta Ramsar Site
OKACOM	The Permanent Okavango River Basin Water Commission
OKASEC	OKACOM Secretariat
PB	Project Board
PES	Payment for Ecosystem Services
PMU	Project Management Unit
PPRR	Principal Project Regional Representative
RTAG	Regional Technical Advisory Group
SAP	Strategic Action Programme
SAREP	Southern Africa Regional Environmental Programme
SIDA	Swedish International Development Agency
TBEA	Transboundary Environmental Assessment
TDA	Transboundary Diagnostic Analysis
WEAP	Water Evaluation and Planning System

# 1. Situation Analysis

## 1.1 General description of the Cubango-Okavango

The Cubango-Okavango River rises in the Angolan highlands at elevations over 1,700 m, joined by the Cuito River as one of the main tributaries near Dirico, Angola, and flows over relatively flat landscape dipping gradually towards the Okavango Delta. Annually, floodwaters generated during the rainy season in the north propagate slowly through the system of upstream and mid-reaches riverine wetlands, ultimately feeding the Okavango Delta, and in wetter years Lake Ngami and the Boteti River. The upper stretches of the basin contribute almost all of the water that flows through Namibia and into Botswana. By the time it enters the top of the Panhandle near Mohembo, the flow is in a single meandering channel surrounded by a broad area of marshes. After about 100 km the river starts to split into more channels that splay out to form the main body of the Delta.

Four characteristics are key to maintaining the ecological functioning of the basin:

- The seasonal flood pulse. It underpins the high primary productivity of wetlands and riverine forests, supporting high overall biodiversity and biomass. The role of the flood pulse increases towards the distal part of the basin where the annual flood becomes asynchronous with the rainy season.
- Inter-annual to multi-decadal hydrological variability. This enlarges the spatial extent of the flood, occasionally bringing water to the far ends of the system, which would otherwise stay dry. Also, the variability plays a role in maintaining high productivity of the riverine and wetland ecosystems.
- High dry season flows. These provide perennial water availability in the mid-basin, both to the ecosystem and human population.
- Low concentrations of dissolved compounds. These are key to ecosystem functioning and human water use.

The low nutrients and dissolved chemicals found within the waters of the Okavango are the combined result of low nutrients in the basin, current low-levels of pollution, and natural water purification provided by the wetlands in the mid-reaches of the Cubango and Cuito rivers. In the Okavango Delta, the peat lands of the permanent swamp provide similar water purification functions. Additionally, riparian woodlands, through transpirative uptake of groundwater, maintain surface water-groundwater flows that effectively remove salts that would otherwise accumulate on the surface as a result of evaporative concentration.

In order for the Cubango-Okavango River Basin (CORB) to continue functioning as an ecosystem, and for it to continue supporting people's livelihoods and local economies, the following six actions have been prioritised by the CORB states through the TDA-SAP development process:

- Allow the system to continue operating within its normal range of seasonal and inter-annual hydrological variability.
- Maintain the flood-buffering capacity of mid-basin wetlands, and the Okavango Delta permanent swamps.
- Protect the islands and riverine woodlands so they continue maintaining good water quality through on-going salt-withdrawal.
- Ensure continued low levels of organic/inorganic pollutants and nutrients, and thus prevent toxicity or eutrophication build-up within the wetland systems.
- Keep alien-invasive species out of the system completely
- Maintain enough habitat for indigenous wildlife and enable wildlife to move freely within and between countries

## 1.2 Global significance

The CORB is ecologically unique. The wildlife-rich wetlands in its lower reaches are the best-known basin feature, constituting one of the world's largest Ramsar sites located in Botswana and another in Namibia adjacent to the Delta. This area has regional and global environmental and biodiversity value and importance. The Okavango Delta has been inscribed as a World Heritage Site under the UNESCO Convention in June 2014.

The joint Ramsar Sites lie in the heart of the extensive network of transboundary parks and community conserved areas that make up the globally important Kavango Zambezi Transfrontier Conservation Area (KAZA TFCA). The KAZA-TFCA, which supports large herds of elephant and buffalo, rare and endangered species such as roan and sable antelope, constitutes important corridors for animal movement within the

greater region. KAZA aims to broaden the protected areas network, thus increasing biodiversity, expanding historical game migration routes and drawing more tourists to the area. In a place where local people often bear the costs of living with wildlife, KAZA aims to make the protection of wildlife and wild places economically more attractive to rural communities.

### 1.3 Threats, root causes, and barriers

Based on current trends, the lower reaches of the CORB (notably the previously-mentioned Ramsar Sites) will cease to exist as fully functional wetlands and will lose their wilderness qualities within the next 10-15 years. Significant changes will have occurred at the regional and local scales that will have exceeded critical thresholds and changed the system into different and less desirable states. The changes will be significantly worse if development activities to be carried out in the basin did not take environmental considerations fully into account.

Through the TDA completed under the EPSMO project, the Basin States have recognised the following threats and root causes:

Key threats:

- Variation and reduction of hydrological flow
- Changes in sediment dynamics
- Changes in water quality
- Changes in the abundance and distribution of biota

Root causes:

- Population growth and urbanization;
- Land use change;
- Poverty; and
- Climate change.

The UNDP-GEF EPSMO project through the TDA and Integrated Flow Assessment (IFA), has tried to predict the level of socio-economic and environmental impacts under different water use scenarios (low, medium and high) and macro-economic backdrops. Despite data constraints, some key findings have emerged:

- The River and its floodplains provide significant ecological services, which support the livelihoods of a large proportion of the basin's population. The livelihood support is more marked in the downstream countries of Namibia and Botswana than upstream in Angola.
- While water use developments are aimed at increasing the amount of income from the river system, particularly in the upper basin, this may not necessarily reduce poverty. The poverty within the basin, which is worse than that in the broader societies of basin countries, may be exacerbated if higher uses of water are developed whilst reducing ecological services.
- Potential growth in water demand over the next 15 years is dominated by an increase in irrigation demand. However the economic feasibility of most of the schemes is highly questionable because of their remoteness from the commercial markets, poor soils etc.
- A progressive decline in the condition of the river ecosystem would occur from the low to high water use scenarios, with the high scenario rendering large parts of the system unable to sustain present beneficial uses.
- In the Delta, for the high water use scenario, the various types of permanent swamp would decrease to about 20% of present day average levels and seasonal swamp types increase by about 105–180% of present day.
- It is estimated that the livelihoods value will drop from the present day estimate of US\$ 60 million per year, to a just over US\$ 30 million per year for the low water use scenario to under US\$ 10 million per year for both medium and high water resource use scenarios

In summary, the High and Medium water use scenarios tested under the IFA could generate an order of magnitude of economic losses and risk that could overwhelm the potential benefits of the full suite of proposed water resources developments across all three countries.

## Barriers

Development in the CORB is undoubtedly needed in order to improve the lives of the basin population, but for projects to be sustainable their nature and scale must not exceed the capacity of the system to accommodate them, both singly and in combination. Whilst the political pressures to utilise the CORB's resources are strong, they must be managed within a jointly agreed comprehensive Basin Development and Management Framework (BDMF), underpinned by sound knowledge of the river basin, to avoid irreversible social and environmental impacts.

In line with the concept of IWRM, decision makers need to balance economic, social equality and environmental objectives and find a point, which is acceptable both nationally and basin-wide. This is going to be a difficult task since the trade-offs will differ between countries and over time. There will need to be compromise as the countries establish a common acceptable development 'vision' or 'space' for the CORB, which will make best use of the basin's natural resources and to take into account the existence value of especially the lower reaches. There is not just one optimum development pathway and final selection will depend on many internal and external factors.

### 1.4 Basin governance – national and regional

Governance processes at the basin level are relatively weak. The legal and institutional frameworks for cooperation exist in the form of the 1994 Permanent Okavango River Basin Water Commission (OKACOM) Agreement and the Southern African Development Community Revised Protocol on Shared Watercourses of 2000. The latter is based on the 1997 United Nations Convention on the Law of the Non-navigational Uses of International Watercourses.

OKACOM is a technical advisory body to the Parties on matters relating to the conservation, development and utilization of water resources of common interest. Whereas the OKACOM Agreement does not create substantive rights and obligations of the Parties with respect to the management of the basin, it determines the issues for which OKACOM is mandated to advise the Parties.

In April 2007 the three Parties established the organs of OKACOM as:

- The Commission
- The Okavango Basin Steering Committee (OBSC), and
- The Secretariat.

The Commission is the principal organ responsible for defining and guiding the development policy and the general supervision of the activities of OKACOM. The OBSC is the technical advisory body to the Commission, whereas the Secretariat is responsible for providing administrative, financial and general secretarial services to OKACOM. The Commission is entitled to establish *ad hoc* working groups or specific temporary or permanent committees. Three Task Forces have subsequently been established, namely a Biodiversity Task Force, a Hydrology Task Force and an Institutional Task Force.

In addition, the basin countries have approved the establishment of National Coordination Units (NCUs) (initially established as temporary, project-specific bodies for the EPSMO project) as permanent structures in order to strengthen OKACOM's linkages with the basin states at local, operational level and implementation mechanisms for the National Action Plans.

The Commission consists of the three national delegations, each comprising three Commissioners appointed by their respective countries. The Commissioners are representatives of relevant government departments who attend to OKACOM matters as part of their departmental functions, but do not work on OKACOM matters on a full-time basis.

The establishment of the OKACOM Secretariat and subsequent appointment of an executive secretary with support staff has put OKACOM on firmer administrative footing. Guided by the OKACOM five -year plan, and supported by funding from the Swedish International Development Agency (SIDA), it provides the necessary support for the Commission to operate effectively and meet its increasing responsibilities. However, the recommendations of an institutional functional analysis recently undertaken call for further significant strengthening of the technical capacity of the OKACOM secretariat, including additional expert staff. In line with its mandate of being an information-sharing platform for the three basin states, OKACOM

has recently concluded the development of a Hydrological Data Sharing Protocol, and the Stakeholder Participation Integration Strategy for the CORB and the OKACOM Information and Communication Strategy have been completed in 2012.

However, the various components of the decision cycle (decision making, implementation, monitoring, data-collection and analysis) require strengthening within CORB states. They need to be integrated vertically, from basin-wide to local levels, and horizontally, across the sectors. This huge challenge is the cornerstone of the SAP and the associated National Action Plans.

Looking at whole basin management there are a number of contradictions within government policies (both within and between policies) in CORB states, which could generate environmental and social problems with negative impacts including: land degradation; loss of scenic value and sense of place, habitat and biodiversity loss; pollution of land, water and air; over-abstraction of water; livelihood insecurity, involuntary resettlement and health impacts. Examples of policies that may cause antagonism and opportunity costs include: irrigation versus other uses of water (e.g. for green schemes in Namibia); resettlement versus conservation and tourism (especially in Namibia), livestock ranching versus tourism (notably in Botswana and Namibia), tourism versus CBNRM (specifically in Botswana where controlled hunting was recently banned), and mining versus conservation. It would be useful for future Policies, Plans and Programmes to address the linkages between key sectors, identify where synergies can be achieved, and policy oppositions reduced, and consider the implications of cumulative environmental or social impacts (positive or negative). It is however recognised that this is a long-term objective and in establishing the BDMF a step-wise approach needs to be taken. OKACOM's ambitions will need to be reined-in by the organisation's technical capacity and funding limitations - strengthening must be gradual and sustainable. Key to the advance is implementation of the Strategic Action Programme (SAP) - developed under GEF ESPMO and endorsed by the three states, it is the cornerstone of OKACOM planning. Critical is the alignment of regional and national policies and plans, and donor support to the SAP **as outlined in the National Action Plans (NAPs).**

### 1.5 Baseline/alternative scenarios

Baseline: Until now, water resource and economic development affecting the utilization of natural resources in the basin has been driven by national and sectoral development plans and strategies within each basin state with little consideration to transboundary impacts. No effective mechanism is in place to facilitate coordinated implementation of environmental safeguards at the basin level, including transboundary EIA. National sectoral development plans exist which propose a significant increase in the area of irrigated lands in the upstream parts of the basin, storage-based hydro-power developments in Angola, an inter-basin transfer to meet water demand in central Namibia, all of which if implemented without careful transboundary consideration, would have significant impacts on the basin, especially the Okavango Delta. Likewise, water and natural resource management and monitoring activities in the basin are predominantly at national and sectoral levels with limited coordination at the transboundary and inter-sectoral level.

In the last decade, there has been a steady increase in willingness among the countries to coordinate activities at the basin level, building upon their extensive efforts in developing a basin-wide baseline (TDA) and having agreed on the basin-wide priorities (SAP). Strong commitment to support OKACOM as the platform for the joint management of the Cubango-Okavango basin is witnessed in increases in the financial contribution from the countries to support the OKACOM Secretariat from zero until 2009 to USD100,000/year/country in 2013. Further, OKACOM started requesting partners or institutions which undertake initiatives in the CORB to align their activities with the SAP framework, if the OKACOM is expected to endorse their activities. OKACOM has also developed a 5 year plan which aims to operationalize the SAP through coordinating member states' as well as external partners' activities in the basin in the near future. In line with the SAP, OKACOM expresses needs and willingness to work on strategies, which requires much stronger coordination with other sectors than it has been in the past, such as fisheries management guidelines in the basin.

However, OKACOM and its member states face significant financial, institutional, technical capacity limitation currently to back up their high willingness to cooperate and progress further with the planning, decision-making, and coordination of future activities in the basin within the joint management framework. There are limited national resources that can be channelled towards transboundary initiatives and/or transboundary benefits when each country has its own obligations to reduce poverty, improve livelihoods, and achieve economic and social development. In all three basin States, there is insufficient awareness by planners and planning ministries about the value of the CORB, resulting in the system being grossly

undervalued in terms of its ecological services. A full analysis of the baseline situation at the regional level is presented in the TDA and at the national levels in the National Action Plans.

Alternative scenario: The TDA-SAP process confirmed that considerable economic and ecological benefits can be derived from coordinated, joint development at basin-wide level. The Integrated Flow Assessments show that different water use scenarios, yielding similar levels of socioeconomic benefits, can affect the ecosystem very differently. Some scenarios are more damaging to the basin ecosystem than others. The countries have noted that there could, under certain circumstances, be a basin-wide economic advantage in maximizing ecosystems services rather than increasing water use in the upper basin. The TDA has shown for example that run-off river hydropower development; with minimal to no negative impact on the basin ecosystem, is a viable alternative to storage-based hydropower development. This demonstrates that there are ecosystem-conscious solutions to the energy poverty issues in the upstream part of the basin, which do not compromise the economic benefits downstream.

The SAP, which was approved by the OKACOM in May 2011 and has been cabinet endorsed by all basin States, endeavours to address these complex issues by improving the basin governance through strengthening of the Basin Development and Management Framework (BDMF) and tackling specific issues in four thematic areas:

- Livelihoods and Socio-Economic Development
- Water Resource Management
- Land Management
- Environment and Biodiversity

These management priorities all respond to the four main underlying causes or drivers identified earlier. A key SAP objective under the Basin Development and Management Framework is the establishment of the long-term acceptable development space for the Okavango basin, based on the concept of IWRM and the trade-off between conventional water resource development and maximizing ecosystem services. The defining of this development space and the implementation of alternative development and management options is a key objective of the basin states through OKACOM. If OKACOM is able to provide technically sound and timely advice to its Member States from the transboundary perspective, it will allow national and sectoral planning and implementation to incorporate transboundary considerations without too many compromises on their national agendas. To achieve this objective, OKACOM's institutional, technical and coordination capacity must be strengthened.

BDMF is a management framework aiming to strengthen capacity of the OKACOM to make joint (advisory) decisions or recommendations to its basin states that impact development and management of the transboundary basin resources and/or ecosystems. BDMF allows decision makers to fully consider ecosystem values of the basin and environmental and socioeconomic considerations when analyzing future water resources development options in the basin. BDMF is the management framework that OKACOM adopted – through its endorsement of the Cubango-Okavango SAP – to strengthen its transboundary basin governance capacity.

The main purpose of BDMF is to enable decision makers from the basin states to jointly agree on the acceptable development space for the basin, to guide development activities in the basin so that they will remain within the agreed development space, and to review the agreement and its implication continuously for any necessary future adjustment.

## 2. Strategy

### 2.1 General Project strategy

The uniqueness of the Cubango-Okavango and natural resource value was recognised jointly by the three basin states twenty years ago with the formation of OKACOM and a call for multi-lateral action to protect it from unsustainable development. Development pressures, for a number of reasons, have been slow to materialise and the basin is still one of the least utilised in terms of water resources in Africa. However the situation is changing and development pressures, both planned and unplanned, are gathering momentum

and the time available to develop the necessary governance structures has diminished. Governance of the CORB is a complex issue as described above, bringing together three countries with different development directions and pathways and finding consensus can be time consuming. It is recognised with population growth that development of the basin's resources must occur in order to maintain and lift the socio-economic status of the basin's communities but also acknowledge that this should be done with as minimum impact on the environment as is possible. Establishing a strong CORB governance framework is the challenge for OKACOM over the next ten years. These changes will take time and cost money and should be done in a progressive and step-wise fashion. A framework can be described and approved on paper but the test is whether it can be implemented on the ground.

The development pressures, if not yet fully defined, have been identified by OKACOM. Through the Transboundary Diagnostic Analysis (TDA) the concept of a 'development space' has been accepted by the three countries. The TDA drew attention to the value of the ecological services, which the basin provided, and the importance of low impact development as an economically viable alternative to more conventional water resource schemes. From these assessments OKACOM has drawn up a comprehensive set of responses to the threats in the Strategic Action Programme (SAP), which was adopted by OKACOM in April 2012. Set over a ten-year planning period, the SAP includes measures to strengthen the capacity of OKACOM and, through the associated National Action Plans, national institutions to deliver a Basin Development and Management Framework (BDMF), as well as the first steps to construction of the BDMF.

The basin states in defining the 'Development Space' and in preparing the SAP were unanimous that the primary objective of basin development should be the improvement in the economic status of the basin communities and should share the benefits between the basin states. The latter is an important principle and in establishment of a basin vision and apportionment of the SAP implementation costs. The existence value of the Cubango-Okavango is also recognised although it cannot easily be monetised. An indirect measure would be the extent of international support for the implementation of the SAP and funding support of low impact development schemes in contrast to more traditional water resource developments.

OKACOM is now seeking assistance from the donor community to operationalise and implement the SAP. The first stage is to agree on a basin development vision and strengthen the mandate and capacity of OKACOM to which the Swedish International Development Agency will provide support over the next three years. A clearer definition of the BDMF and its mechanisms to address the specific natural resource management issues is required and there are appreciable gaps in knowledge to be filled in understanding the basin's ecosystem processes. Monitoring and evaluation programmes are the backbone of any management system and will require substantive investment and operational budgets. The SAP covers the design and feasibility of the monitoring but not the investment steps, which need to be addressed at the NAP level and will require support from the international community. The financial sustainability of the BDMF is critical and is one of the key concerns of OKACOM.

## 2.2 Capacity Building and Visioning

The GEF project will assist the countries to strengthen the management structure of OKACOM and associated bodies, working in close association with the SIDA. Under the OKACOM Five Year plan SIDA support will be used to strengthen the administrative and financial capacity of the Secretariat, enabling it to be better equipped and trained to implement projects, and will fund additional staff members to coordinate SAP implementation. The GEF project will complement the SIDA support.

The strengthening of OKACOM, whether centralised or decentralised, should be seen as a long-term endeavour, more than 5 years, and be carefully planned by the countries. At present there is too much reliance on the major project partners in the development of OKASEC and more thought should be given to the needs of the BDMF in planning its expansion. The establishment of the technical task force groups and the NAP implementation units and a decentralised approach are welcome, but it is not clear how they are to operate and how they link with the secretariat. Externally, it is difficult to identify the responsibilities of each of these institutional components and their lines of communication in SAP implementation and provision of technical/operational advice to the countries through OKACOM. An institutional mapping exercise would be useful in establishing a clearer and perhaps simpler management structure.

Regarding staffing, it is presumed that the newly proposed secretariat staff, a programme coordination officer and policy advisor, will advise and direct the technical groups. The secretariat would benefit from an IT specialist and a communication and information specialist particularly in light of the content of the OKACOM Five Year Plan and perhaps these experts could be seconded from the countries' civil service

rather than externally sourced, thus strengthening the working bond between the OBSC, the Secretariat, NAP implementation units and the technical task forces. The location of the Secretariat in Maun is a problematic issue, which should not be ignored; communications and the difficulty in attracting and maintaining high-level staff are serious obstructions to the operation of an efficient RBO. The political advantages of the Secretariat being located in the basin, especially if the NAP implementation units are located locally, are perhaps questionable when laid against the practical disadvantages. The member states have just completed the study on the most effective and cost-efficient location of the OKASEC. Based on the recommendation of the study, the Commission has decided in 2014 to relocate the Secretariat to Gaborone, Botswana.

The SAP calls for an aspirational basin 'vision', which, if underpinned by environmental quality standards, will require intense negotiations between the basin states. It is proposed that such a visioning exercise rather than done in isolation could be combined with the negotiations for the Framework Convention for the Development and Management of the Cubango-Okavango basin, one of the first interventions in the SAP (1.2). Any such discussions would have to include a renegotiation of the OKACOM mandate, enlarging from that of an advisory body to an inter-governmental body with responsibility, not solely for water resources, but also for development of all natural resources. It is proposed that under the project support be provided, in combination with SIDA, to assist the countries in either an expansion of the existing agreement or development of the initial stages of a Framework Convention.

In addition to the strengthening of OKASEC the project will, particularly through its technical components, support capacity building in the basin states. It will work closely with the OKACOM Task Forces to define the capacity needs and work with the other donors and projects to provide the necessary training.

### 2.3 SAP Operationalization

The Strategic Action Programme (SAP) is OKACOM's cornerstone planning document. It's detailed and comprehensive listing of planned interventions provides overall guidance for the GEF project and all other partner projects, providing the template for coordination and collaboration between countries and donors. The SAP is not a perfect document and can still be improved and in that regard should be seen as a living document. The SAP requires a clearer long-term vision linked to Environment Quality Standards and more precise prioritisation of interventions. The SAP sets out and explains clearly the concept of the 'Development Space', but the delivery mechanism, i.e. the Basin Development and Management Framework, is less well defined and needs improvement and targeting to address the key emerging issues. The key emerging issues at present being the pressure on land resources with the forecast increase in population growth and in-migration and demand for water resources in the upper catchment and its impact on the river's ecosystem, in particular the downstream delta. These two issues are inter-connected but they are also separated enough for them to be dealt with independently, something that needs to be done in the step-wise building of the BDMF. In supporting implementation of the SAP the UNDP-GEF project will focus on the overall development of the BDMF mechanism and the water resource issue. The USAID SAREP project over the last four years has focused, although not exclusively, attention on SAP activities relating to land use and thus the UNDP-GEF project will balance this intervention. The UNDP-GEF project will build on the work carried out by SAREP, for example on the integration of the Payment for Ecological Services (PES) principles into CORB sustainable financial schemes and implementation of the demonstration projects which have common objectives.

The project will alongside SIDA support help to strengthen the capacity of OKACOM to coordinate SAP implementation and operationalization. The OKACOM's Strategic Action Programme has been endorsed by the three member states and is the basis for all regional interventions in the Cubango-Okavango basin.

The project design is closely aligned to the Strategic Action Programme and to OKACOM's Five Year Plan (2013 – 2018). The OKACOM's 5-year Plan was developed to address both institutional and organisational capacity development and SAP implementation. It was adopted by the OKACOM in 2013. The Five Year Plan is split into two parts: Part 1, addressing institutional strengthening and development, is drawn from the OKASEC Institutional Functional Analysis undertaken in 2012, and Part 2, implementation of the SAP, is drawn directly from priority SAP Thematic Areas. The Five Year Plan is ambitious and is unlikely to meet its targets by 2018, particularly with regard to Part 2 implementation of the SAP. The review of the plan is expected in 2016 and the project expects to help support this review and subsequent planning steps, the first being a review of NAPs.

The total value of the Five Year Plan is approximately \$46.2 million; \$33.8 million from external funds and \$12.4 million from member states. Support for its Part 1 is currently provided by the Swedish International

Development Agency (SIDA) and the member states. The SIDA support is over three years (2014-2017) and is worth approximately \$2.5million. The UNDP-GEF project (\$6.3million from 2015-2019) recognises institutional strengthening and development of OKASEC as a pre-requisite for the implementation of the SAP and its Component 1 support some activities identified under Part 1. USAID SAREP's ongoing support has also been contributing to the Five Year Plan. It should be noted however that the funding gap is significant and cannot be fully closed by the currently ongoing initiatives.

During the project development phase UNDP has consulted closely with OKASEC to identify priority activities under Part 1 which can be supported by the project (see component 1). OKASEC's implementation of the project is in itself will constitute a strengthening and empowerment of organisation. The project has allocated necessary resources to strengthen OKASEC's administrative and project management capacity required for the project implementation.

As mentioned above, Part 2 of the Five Year Plan is ambitious and does not reflect the current or future SAP implementation status. The 5-year Plan indicates that one of the initial activities of Part 2 will be 'the preparation of a costed and prioritised implementation plan for the SAP'. To this end, a draft SAP implementation plan will be prepared by OKASEC with the project support (Component 1). Further, the project will support the OKACOM the development of the SAP/NAP M&E Framework, building upon work being undertaken by OKASEC with the assistance from GIZ.

The SAP implementation plan will prioritise the SAP beyond the current Five Year Plan to a 15 year planning horizon, thus allowing the countries to better gauge their financial commitments and donors shape and design their long-term interventions. The final operational plan will provide clarity and momentum to SAP implementation and, hopefully, attract new donors to OKACOM. In conjunction with the SAP implementation plan, the project will help develop a Monitoring and Evaluation Framework for SAP and NAP implementation to be administered by OKASEC. The M&E Framework will define the processes and procedures in establishing baselines and measuring implementation progress in the three Member States.

**Four** additional projects that will support OKACOM's implementation of the SAP are;

- DfID Climate Resilient Infrastructure Development Facility (CRIDF)
- CIWA/WB Cubango - Okavango River Basin: Multi-Sector Investment Opportunities Analysis
- EU support to SAP Implementation
- SADC Transboundary Water Resources Management programme funded by Germany and DfID, implemented by GIZ

CRIDF is the UK Department of International Development's (DfID) water infrastructure programme for southern Africa. The facility will deliver sustainable small-scale infrastructure across 11 SADC countries. Headquartered in Pretoria, South Africa, the demand-driven programme will focus on water services, water resource management, and agriculture. Although not currently operating in the Cubango-Okavango basin it is actively looking for potential projects and investments. Over the next four years the fund worth \$30 million is anticipated to leverage up to \$80 million external funding. It is hoped that the GEF project will cooperate with CRIDF particularly with development and implementation of the demonstration projects.

With support from the Cooperation in International Waters in Africa (CIWA) and WB, OKACOM is undertaking a multi-sector analysis of investment options proposed to meet the development needs of the riparian countries in the Cubango-Okavango basin in such a manner as to safeguard the ecological status of the basin. The analysis will be regional in nature including potential resources outside of the Cubango-Okavango Basin in order to offset demands within the basin. The project will link directly into component 1 of the project and provide valuable insight and perspective in evaluation of the development space. The study has begun in late 2015 and have a value of \$1 million.

The proposed EU-funded programme aims at contributing to the overall objective of the cross-regional envelope for "transboundary water management" of the EU Regional Indicative Programme for Eastern Africa, Southern Africa, and the Indian Ocean (2014–2020) which is "to contribute to the equitable utilisation, shared benefits, and mitigation of common risks of transboundary waters in Eastern and Southern Africa." This will be achieved by supporting the implementation of the approved OKACOM Strategic Action Programme (SAP) specifically in the areas of water resources management and land management – two thematic areas identified as priority by OKACOM, SADC and the EU Delegation to Botswana and SADC. In addition, links with livelihoods aspects are taken into account by suggesting

interventions aimed at enhancing livelihoods which have strong implications in halting and reverting land degradation (topic covered by the land management thematic areas) and in fostering sustainable water resources management. Overall, the programme aims at strengthening OKACOM's advisory role to its member states by: i) providing basin-wide decision support systems and a knowledge base to enhance transboundary Integrated Water Resources Management (IWRM) and land management, ii) enhancing member states' capacities in the areas of water resources management and land management, and iii) promoting livelihoods of basin communities so that water resources are used efficiently and sustainably, and land and environmental degradation is controlled, and eventually halted or reversed.

OKACOM has been receiving support from GIZ and the two organisations are currently in discussions to enter into an agreement on areas of support to the CORB. The Transboundary Water Management in SADC programme has therefore been commissioned by the German Federal Ministry for Economic Cooperation and Development (BMZ) and the UK Department for International Development to achieve the following module objective: "implementation of selected harmonised strategies and policies on transboundary water cooperation is improved". Areas of possible support include institutional and capacity development; data and information management as well as climate change.

The project will also, where appropriate, coordinate and communicate with the UNDP-GEF Botswana project 'Mainstreaming Sustainable Land Management in Rangeland Areas of Ngamiland District Landscape for Improved Livelihoods. The project commenced implementation in March 2014 and potential for project collaboration will be investigated in the inception period.

## 2.4 Development Space

It is clearly stated and understood both in the TDA and the SAP, that there must be development of the basin resources to fulfil the needs and raise economic status of the basin communities. The questions are how best and to what extent those resources should be utilized to achieve these aims without jeopardising and threatening the long-term viability of the Cubango-Okavango ecosystem. This is recognised in the SAP by the inclusion of the concept of a 'development space' and the need of a Basin Development and Management Framework. However setting boundaries of such a Development Space is a highly complex question, one that will need considerable efforts over many years to resolve. In terms of water resources it is a relatively straightforward process when compared to the much more intangible and fragmented issue of land use, but it is still a highly involved process.

It is understood, that neither the countries nor their experts are at the stage where they can define and agree the development space. In terms of water resources the reliable yields and demands forecasts have still to be verified. Work on ecological flows, siltation loadings, and water quality status, as well as groundwater resource assessment is at its early stage. The Integrated Flow Analysis conducted under the ESPMO project has gone some way to establish the bounds of the development space, but there is still much work to be done before these limits can be agreed. Critically, much more work on the economic analysis of water utilisation and environmental impacts of reduced annual and flood peak flows on the health of the CORB ecosystem needs to be carried out. A Strategic Environmental Assessment will be undertaken for the whole CORB with the project support, which will be undertaken as part component 3 of the GEF project, following the preliminary assessment activities.

There is an acknowledgement between the countries that the water resources of the basin are limited and that demands must also have to be limited. However, despite the significant technical studies that have been undertaken, the decision-makers across sectors still making conflicting claims on the resource. The fundamental question to be answered is how much water can be abstracted and from where without undermining the basin's ecological status and integrity, in the most economically efficient manner? It is a political as well as a technical question whose answer will require compromise and consensus. The upcoming multi-sectoral investment opportunities analysis study will provide OKACOM with further information to discuss further the establishment of the agreed development space as well as the basin-wide IWRM plan.

## 2.5 Basin Development and Management Framework

Defining of the development space needs to be undertaken in an incremental and adaptive management manner and in this the design the BDMF is critical. However, the BDMF and its accompanying Decision Support System (DSS) as described in the SAP is a complex and wide-ranging management tool, without a clear operational structure or mechanism. A simple mechanism is what is required, matched to the technical capacity of OKASEC who are charged with its operation.

Strengthening OKASEC will take time and should not be thought merely a case of hiring additional staff, no matter how well qualified. The Institutional Framework Analysis undertaken by OKACOM has laid out a road-map for strengthening of OKACOM and the secretariat which will be supported by the SIDA and GEF projects. It is important to note that the ambitions of the SAP and design of the BDMF should be constrained to match the current and future institutional capacity of OKASEC and not driven by external consultants.

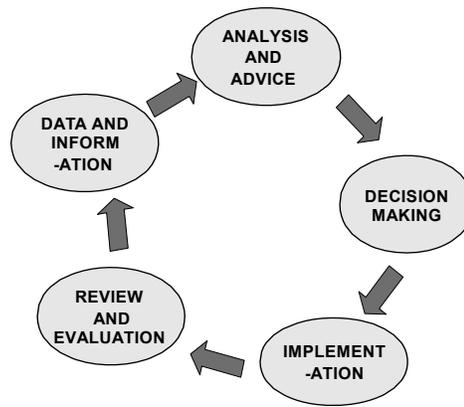
The BDMF can be envisioned as a set of governance decisions and mechanisms, which address emerging or existing issues relating to the Development Space and management of the basin's natural resources. In dealing with these issues, although inter-linked, the structures and organisations involved are not necessarily coincident at the regional or national level. In fact they are unlikely to be so, and the common denominator will be OKACOM. Therefore OKACOM/OKASEC will need to be deft at communicating across the sectors and at all different administration levels in order to bring about an integrated approach, which is so keenly sought. In the first instance, as mentioned above, in constructing the BDMF, it is recommended that each issue be addressed separately, and a set of BDMF decision mechanisms or frameworks be developed.

The project will focus on the development of the overall BDMF concept and the decision mechanism and Decision Support System addressing the water resource management issue. The question to be answered is how much water can be abstracted and from where without undermining the basin's ecological status and integrity, in the most economically efficient manner? It is a political as well as a technical question whose answer will require compromise and consensus.

The GEF ESPMO project approached the question's technical aspect through the development of the Integrated Flow Assessment (IFA) model, which predicted, under different demand scenarios, the environmental and economic consequences measured against an existing baseline and a limited set of criteria. The model, an early DSS, did not define the 'Development Space' for water resources but rather gave guidance on the water resource limits during different phases of the hydrological cycle. The recent work of the SAREP project provides similar guidance, but over a wider range of assessment criteria. What is missing from both is a mechanism by which this guidance can be transformed into clear recommendations to the decision makers.

The BDMF should encompass all the elements of the policy or governance cycle (see figure 1 below). The IFA and DSS in which it is embedded are part of the 'Analysis and Advice' component and thus their operation and development the responsibility of OKACOM and the OKASEC. However their value is wholly dependent upon the realisation of the preceding steps in the governance cycle. The strengthening of the governance cycle involves the efficient collection of data and its transformation into information and then transfer of knowledge to decision makers in the three basin states. Currently there are weaknesses throughout the OKACOM governance cycle as identified in the SAP and the NAPs, including, as mentioned, the capacity of OKASEC and structure of OKACOM.

The DSS is only partially formed with no common under-pinning database, the monitoring programmes are incomplete and in areas missing, and the review and evaluation component is not established. The GEF project will address all these issues noting that some of the required interventions, such as strengthening of the monitoring programmes, need to be implemented at the national level and will require substantial investment.



**Figure 1. Generic policy cycle.**

Focusing on the of the governance cycle and the BDMF, it needs to be flexible and adaptive, one, which allows close monitoring of development and adjustment to its depth and speed in light of environmental and economic conditions in the three countries. Such a decision mechanism design would test individual developments on a case-by-case basis through a cost-benefit analysis and a transboundary environmental assessment - it would be a two-stage process. Firstly the development should be shown to be economically feasible, measured against comparable developments in the region, taking into account supply and demand, and against potential economic returns from alternative low impact development interventions. In the TDA low impact interventions were identified that make maximum use of existing ecological services, as an alternative potential development pathway. However more data is required on the potential economic performance of this type of intervention and a benchmark set against which the conventional developments can be measured. To this end, the project will conduct a set of demonstration projects across a range of sectors to evaluate the socio-economic performance of the projects and conduct desk studies of the performance of similar demonstration projects that have or are being implemented by USAID and DFID (see section 2.6).

If the proposed development passes the economic test then it would be subject to a second stage Transboundary Environmental Assessment (TBEA). The assessment would be guided by a series of thresholds provided by an enhanced DSS (WEAP/IFA). If the development gets past second step and it is within the threshold then, subject to any country allocation rule, it would likely get a no objection. Thus in the early stages of basin development the economic evaluation as part of the first step is critical. If however, - as is expected - the thresholds are quickly reached the TBEA will become the key instrument.

The GEF project will help strengthen the WEAP and IFA models, developing them into more practical tools for decision support, and improve the underlying databases and information management systems at both the national and regional levels - improving data flow and establishing QA standards. Working with the World Bank the project will investigate how the results of Multi-sector Investment Opportunity Analysis models (MSIOA) which are to be developed can be incorporated into enlarged DSS.

In adjusting the threshold levels, a comprehensive hydrological and ecological monitoring programme needs to be established and a baseline created in order to measure actual development impact. The results would be fed back into the DSS and the thresholds adjusted. Initially development approval and implementation would be relatively rapid if the proposals meet the economic test, since they would lie well within the development space, but as the threshold is approached more caution would need to be applied giving time for impacts to be measured. What is to be avoided is a press by the countries for development simply to guarantee their perceived quota based on for example simple geographical criteria. The countries should prioritise their developments to ensuring the most economically favourable are developed first **and the input from the WB MSIO analysis would be critical.**

It should be noted that the monitoring programme would take some considerable time to establish. The GEF project will assist the countries in the design and development of the monitoring systems, but it cannot provide the large investment to establish them or the means to operate and maintain them. These funds will need to be sourced by the countries and regional levies or PES arrangements (see section 2.9.5) could be applied in order to off-set costs.

## 2.6 Economic Assessment - Cost-benefit analysis

The primary tool determining and guiding economically efficient allocation of resources, in CORB-SAP implementation, will be cost-benefit analysis (CBA). It is vital that this be applied at the micro, enterprise, level, as well as at the macro, large-scale development project and programme level.

The environmentally conscious livelihoods and socio-economic development demonstration projects identified for component 2, should be subjected to cost-benefit appraisal. Selection of the demonstration projects for implementation should depend on them being economically efficient, and having positive basin livelihood contributions, in addition to being environmentally sound.

Further, in the implementation of integrated water resource management (component 3) the basis provided by the IFA socio-economic assessment (Barnes et al., 2009) and the basin economic assessment (Aylward, 2009) should be carried forward through systematic application of CBA. The development projects identified and put together for the three TDA development level scenarios would need to be examined on a case-by-case basis. Development options should then be prioritized on the basis of their economic efficiency, environmental soundness, and impact on local poverty. The comparative approach used by Aylward (2009) to compare expected economic benefits of development scenarios with the resultant losses in direct ecosystem service and goods values can then be worked up into full CBA models, testing the efficiency of various combinations of development.

Generally, apart from in the Botswana part of the basin, a project and CBA approach has been lacking in the CORB, with the result that little is known about the true economic efficiency or viability of development options proposed in the TDA scenarios. Indeed, even where development has been initiated and is ongoing, for example in the Namibian Green Scheme (MAWF, 2008), projects have not been subjected to proper CBA appraisals.

## 2.7 Transboundary Environmental Assessment (TBEA)

As described above, the development and agreement of TBEA is a key step in the construction of the BDMF and considerable progress has been made in this task.

In their meeting in 2012 the Ministers responsible for water in the CORB, recognised the need for formal guidance for communication and collaboration on transboundary environmental assessment (TBEA) in the context of the 1994 OKACOM Agreement. All three riparian States have adopted a comprehensive code of national environmental legislation and each recognises the need for undertaking EAs at both the strategic and project level. Their respective legislative provisions follow a broadly similar process of studies, consultation, analysis, report compilation, submission and approval. However, the legislative measures or accompanying regulations or guidelines for the assessment of transboundary impacts and the consultation of stakeholders in the potentially affected States, require further detailed elaboration.

Fortunately, there are a number of international legal instruments, which, though not directly applicable to the CORB States, are widely understood to exemplify best practice as regards TBEA. For example, the 1991 Espoo Convention on EIA in a Transboundary Context obliges Parties to assess the environmental impact of certain activities at an early stage of planning and sets down the general obligation of States to notify and consult each other on all major projects under consideration that are likely to have a significant transboundary impacts.

The SADC Revised Protocol on Shared Watercourses (which is based on the 1997 United Nations Watercourses Convention) covers such issues as notification of planned measures, reply to such notification, the notifying State's interim duty of non-implementation, the conduct of consultations and negotiations arising from notification, and the situation regarding notification in respect of urgent measures.

Neither the OKACOM Agreement nor the Revised SADC Protocol provide detailed guidance regarding the procedural content of the notification. Therefore, the CORB TB EA Guidelines will include Recommendations for Notification.

'Notification' refers to the long established legal obligation of a riparian State which is planning a new development project, use of the shared water resources, or other measure likely to significantly impact a co-riparian State(s), to inform that co-riparian State(s) of its plans before it implements or permits implementation of those plans. Good faith cooperation requires that such notification should be accompanied by the necessary technical information to enable the notified State(s) to evaluate the possible effects, and that the notifying State should not normally proceed to implement or permit the implementation of the project, use or measure pending receipt of a reply from the notified State(s) or, if requested, during the course of consultations or negotiations with the notified State(s) arising from the notification. Where a cooperative institutional structure has been established at the basin level, notification will normally be via the relevant institution in accordance with agreed procedures.

It is expected that notification will take place via the OKACOM structures, and all communication must be directed through the Head of Delegation of the notifying State, to the Heads of Delegation of the all the other States Parties. In all cases, copies of official communications must be lodged with the OKACOM Secretariat, which is the official 'clearing house' and archive of documentation.

Whilst the Guidelines will not be legally binding per se, non-compliance with the procedures set out in the Guidelines might give rise to a dispute between Parties to the OKACOM Agreement, and might be cited as evidence of non-compliance with one or more of the States' obligations. Such a dispute should be settled under Article 7.4 of the Agreement. It might be prudent to implement the Guidelines for a few years "trial period", after which the States may consider re-drafting them as a Protocol – assuming that the OKACOM Agreement itself is upgraded to a Convention.

## 2.8 Project Objectives

The overall project objective is ***to strengthen the joint management and cooperative decision making capacity of the Cubango-Okavango River basin states on the optimal utilization of natural resources in the basin, with the aim to support the socio-economic development of the basin communities while sustaining the health of the basin ecosystems***. The project has been designed in close collaboration with OKACOM and OKASEC and is fully aligned with the SAP and its component NAPs. The project will provide OKACOM with strategic direction in operationalization of the SAP and development of the BDMF and its accompanying Decision Support System. It will assist OKACOM with the development of the basin vision through support to negotiation of an expanded OKACOM agreement or a Framework Convention and contribute to development of a Payment for Ecological Services scheme currently at the prefeasibility planning stage. The project will demonstrate low impact development schemes in the areas of tourism, wildlife conflict mitigation, fisheries and food security and climate change with special emphasis on evaluation of economic performance. The project will focus on water resource management including strengthening of monitoring and data collection programmes and systems and address at number of knowledge gaps in water resource planning.

The project is divided into three components that are:

- Component 1: Construction of Basin Development and Management Framework
- Component 2: Environmentally Conscious Livelihoods and Socio-Economic Development Demonstration Projects
- Component 3: Integrated Water Resource Management

The proposed project activities within the three components are described below:

## 2.9 Component 1: Basin Development and Management Framework (BDMF)

The two outcomes expected from the Component 1 are:

- Outcome 1: A shared long-term basin development vision and concept of a development space**
- Outcome 2: Strengthened management framework including enhanced OKACOM mandates**

These issues are at the heart of achieving good management and governance of water resources in the Cubango-Okavango basin, as described above. A number of outputs are intended to be delivered by the project under each outcome as listed below.

### **Outcome 1: A shared long-term basin development vision and concept of a development space**

1.1. Agreed long-term basin vision, mission and values, underpinned by environmental quality objectives promoted widely among stakeholders at all levels and guiding all the interventions in CORB.

1.2 Initial boundaries set for development space.

1.3 Customized Decision Support Systems relevant to OKACOM developed and used.

1.4 Design and agreement of an Information Management Systems to accommodate both live and static data.

1.5 Transboundary PES principles fully integrated into sustainable financing schemes for CORB, including the OKACOM Endowment Fund.

### **Outcome 2: Strengthened management framework including enhanced OKACOM mandates**

2.1 SAP and NAP operationalised & M&E framework to monitor SAP/NAP implementation progress designed and applied.

2.2 Revision of the OKACOM agreement to align its mandates and legal status to effectively monitor and coordinate SAP implementation.

2.3 Strengthened OKASEC with technical capability to manage and operate the DSS and IMS.

2.4 Transboundary EIA Guidelines and procedures developed and adopted by OKACOM

2.5 Communication and Information Strategy as well as Stakeholder Integration Strategy effectively implemented

2.6 Strengthened OKASEC with adequate Financial and Administrative capacity to manage donor-funded projects.

To deliver these outputs, leading to the two outcomes, the project will support the following activities under this Component. These activities are all prioritized in the CORB SAP.

#### *Activity 1.1: Basin Development Management Framework (SAP BDMF 4)*

Flexible decision frameworks are needed to allow OKACOM to closely monitor development and to adjust its responses to economic, social and environmental conditions in the basin. The project will conduct a series of early workshops with technical experts and decision makers, to define the general structure of the Basin Development and Management Framework (BDMF) and its component mechanisms. Each component mechanism relates to a priority issue identified in the TDA. The workshops will culminate in a final BDMF design report, which will detail interventions required to establish the decision mechanisms and to incorporate them, if not already present, in the SAP and NAPs.

In more detail a working group will be established to construct the water resource **development** decision mechanism described above in section 1 of this document. The working group will have the complex task of coordinating and combining the various elements – TBEA, Economic Assessment, DSS strengthening, Information Management System and Monitoring - each of it with its own sub-working group. Organisation of the work within each group and communication between them will be specified during the project inception phase.

#### *Activity 1.2: DSS strengthening (SAP BDMF 4.1.1 – 4.1.4 and 4.2.1)*

The current Decision Support System is a quite loose arrangement of tools and models designed either for research application or specific target problems. The project will assist in strengthening the DSS to give it a more robust capability and to widen its applicability not only to OKASEC and its consultants but also the experts in the OKACOM states. Thus the strengthening of the DSS will incorporate capacity building and training elements. The strengthening in the first instance will focus on development of the WEAP model, the hydrological model underlying a strengthened DSS, and the Integrated Flows Assessment model, developed as part of the ESPMO project.

Water Evaluation and Planning system (WEAP) is a scenario-based water management model, which allows simulations of water systems (supply-demand) accounting for policies, costs and factors that affect demand, as well as environmental and climatic conditions that affect water availability. WEAP has been used in the Okavango in the framework of Integrated Flows Assessment (2009) and recently, Cubango-Okavango River Basin Water Audit (CORBWA) Project, and is a suitable candidate for a water management model underlying the basin management decision support system. Primary limitations of water management modelling (with WEAP or any other similar model) in support of basin-wide management decisions in the current Okavango basin setting stem from the following:

- position of WEAP within the institutional framework
- quality and nature of the underlying hydrological model

The following activities are proposed to address these limitations

WEAP model has been so far used in context of research projects, and after their termination both the model and its results have been adopted by riparian countries' water resources agencies with mixed success. There is an obvious need to establish a well-structured collaboration between the riparian countries departments responsible for water resources management and OKACOM/OKASEC focusing on joint development and utilization of the modelling tools and databases supporting water resource management in CORB.

The project will establish a working group of modellers/specialists from each of the countries (from government and other relevant institutions), centred on the development and use of the WEAP and associated tools. This will involve organization of regular meetings, appropriate training, and planning and execution of model improvement tasks. Individual activities proposed below, will be coordinated and, if possible, carried out by the members of this working group.

Previous WEAP simulations are based on hydrological rainfall-runoff model, and in earlier applications, that model was implemented in the off-line mode, and covered only the period of 1960-2000. The quality, nature and temporal coverage of the model is a significant limitation to unambiguous and sound use of the water management model in support of defensible and actionable decisions. There is a wide range of activities that can be carried out in order to improve the hydrological model on which the WEAP model is based. These relate mostly to generation and availability of hydrological and climate data and improvement of the hydrological modelling concept used within WEAP. Improvement of the hydrological model underlying the WEAP tool can be undertaken by:

- Development of the Soil and Water Assessment Tool (SWAT) model for the Cubango-Okavango Basin. This model is integrated into the WEAP software, and therefore, offers the highest likelihood to remain functional within the modelling system, with minimal extra expertise required to use it. The model would assimilate "surrogate" data, and ground monitoring data.
- Extension of WEAP model to include the Okavango Delta and downstream rivers. This would include linking the two models of the Okavango Delta that are currently operational, i.e. HOORC model and DWA's MIKE-SHE into the WEAP modelling framework.

The IFA is an extremely useful tool and integral part of the Cubango-Okavango River basin DSS, which aims to provide scientifically sound information on a suite of future basin development options and their respective ecological and socioeconomic implications to decision makers. The IFA for the Cubango-Okavango River Basin, which was developed during the ESPMO project can be further strengthened with appropriate refinements. As the reliability of IFA depends on the reliability of WEAP simulations, improvement to the WEAP is key to enhanced capability of the IFA. The WEAP improvement will also

enhance the capacity of DRIFT DSS that has subsequently been developed. In addition, new work on the mapping and valuation of ecosystem services (indirect use values and non-use values) should be done to complete the picture regarding social and economic response in the IFA. In other words, findings from improved work on the mapping and valuation of the ecosystem services should be incorporated into the socioeconomics modelling module of the IFA so that the scenario analyses conducted through the IFA will more comprehensively incorporate the value of the healthy riverine ecosystems. Such values include flood control, water purification, carbon sequestration, groundwater replenishment, bank stabilization, and local, regional, and global preservation values Turpie et al. (2006) made a start to estimating these in the Delta.

There is need for a sediment transport model that will be dependent on assessment of sediment supply along the system and on the availability of information on sediment transport for calibration to show how sediment loads vary with river flow.

There should be a case-by-case assessment of existing water resources development proposals in the basin involving technical and economic appraisal to prioritize and screen out proposals. (This case-by-case assessment is not expected to be financed by this project, although the project may provide technical guidance.) Economic viability would be key here, and inclusion of inefficient projects would need wider scrutiny and justification in the economic or political context. The IFA model would then be subjected to inclusion of various permutations of development projects and programmes which pass this test.

The IFA results, resulting from inclusion of these prioritized projects and groups of development projects, would then be analysed in a cost benefit analysis framework with inclusion of the corresponding economic ecosystem services costs from the IFA model.

The project will undertake a detailed review of the DSS and identify possible improvements to the WEAP and IFA components during the inception phase and develop a work plan to be implemented through the established working group.

### *Activity 1.3: Information Management System Development (SAP BDMF 5)*

The facilitation of an integrated basin-wide monitoring database, and more importantly, data flow, storage and sharing procedures is an obvious undertaking for the project, considering the lack of such a database; however, it is very difficult to implement. Firstly due to "database" proliferation (every single project coming to work in the Okavango aims to create the database to be used to support decision-making, and does so without considering institutional capacities), and secondly, due to contested institutional mandates. Although there is a data sharing agreement in place, however, it is very defensive and there is a reluctance to share perhaps from the perception of the need to protect national interests. There may also be constraints on sharing data within country, which limit the flow of data.

The project will review the information and data exchange both in the basin and at national level and make recommendations for its improvement. The objective of this activity is to implement the database system within OKACOM secretariat, with a dedicated technical support at OKACOM secretariat, and a development/steering/management/technical committee composed of representatives from each country. This solution avoids the situation where data resides at and is under control of an institution tied to a particular country, such as in some well-known regional programmes where there is friction between the countries and institutions. The Okavango Research Institute of University of Botswana currently plays host to OBIS (Okavango Basin Information System), and this arrangement is satisfactory with respect to "static" datasets - GIS layers, and remote sensing - but is less effective for "dynamic", monitoring datasets. It is currently envisaged that such hosting agreements will be strengthened, rather than building capacity in the secretariat, but this position will be reviewed.

The hosting of databases within OKASEC would require highly skilled technicians to be permanently employed, which may not be easy to achieve. However, if the development and management of datasets is ceded to a cross-institutional/cross-national "committee", then day-to-day maintenance of the database within OKASEC may be feasible.

Under such ideal arrangement it is foreseen that:

- Relevant national institutions should have an access to this centralized system, and the way to do that is that the system is web-based with different access levels

- The database be linked to the national hydrological databases and meteorological databases – this is technologically possible, but not easy.
- There are linkages to a range of relevant environmental databases (wildlife, agriculture, forestry etc.).
- All linkages should potentially be "live", i.e. the DSS database should allow for continuous synchronization with databases from other institutions. However this is seen as an ambitious step and one which unless the function demands, for example Flood Warning System, would not be appropriate

The harmonization of formats between these various sources of data becomes less and less relevant these days, as format filters and conversion plugins are ubiquitous, or can be custom-coded. The DSS database should contain a range of relevant datasets (MODIS, LANDSAT, TRMM rainfall, RFE rainfall, radar images etc.), which are automatically kept up-to-date, and should store other data generated within OKACOM-led/funded initiatives (surveys, monitoring etc), with the customizable interface allowing population of these datasets and creating new ones.

This is the most technically and institutionally difficult activity within the project and the outputs will be measured. It is not anticipated that the end of the project will facilitate a fully integrated database, but it is hoped that there will be a clear Road Map for its development and that good progress will have been made along the road. The project will establish a working group with expertise drawn from the three countries and will commission a review of the current situation and IMS design from which a three year work plan will be developed. It is hoped that future co-funding can be attracted to this activity once established at both the national and regional level and that activities can be closely coordinated with other completed and on-going academic initiatives that have provided scientific knowledge of the basin, such as The Future Okavango (TFO) and the Southern African Science Service Centre for Climate Change and Adaptive Land Use (SASSICAL). The project's Scientific Officer with expertise in information technology will lead the activity.

#### *Activity 1.4: Payment for Ecosystem Services (PES) scheme*

Payments for Ecosystem Services (PES) are schemes that facilitate a series of payments to the stewards of the land, or 'providers' of ecosystem services, by the beneficiaries, or 'users' of these services, in return for the guaranteed flow of those ecosystem services. Through the scheme, the 'providers' are given the opportunity to augment their income and diversify or improve their existing livelihoods by implementing activities that conserve, restore and maintain the flow of those ecosystem services. Importantly, the provision of these services should be additional to what would otherwise be provided in the absence of payment.

Following a concept paper (see annex 2) developed with the support from the USAID SAREP, UNEP and GRID-Arendal, OKACOM has decided to explore the potential of PES in the basin to increase the financial sustainability of future transboundary initiatives and has asked the GEF to assist. The objectives, inter alia, of the PES would be to:

- create a platform for an optimized benefit sharing model across the basin
- provide incentives for improved land and water use practices and management
- provide sustainable financial resources to fund threat mitigation measures

To achieve a transboundary PES scheme will be a difficult and innovative task. PES has rarely been applied at the transboundary scale because of the complex legal and institutional challenges that such system must overcome. Any system if it is to work will need to be simple. Successful transboundary PES schemes are rare. One of the highest profile examples is on the Lower Danube, where the Governments of Bulgaria, Romania, Moldova and Ukraine have pledged to protect over 1.4 million hectares of wetland under the EU Water Framework Directive. The OKACOM has decided to incorporate PES principles into their various sustainable financing schemes under development/discussions, instead of limiting itself to the narrowly focused PES scheme.

It is envisaged that the GEF project will assist in establishing baseline information on the ecological services in the whole basin to identify investment opportunities in the basin where PES principles can be applied. This information is only currently available to some extent in the Delta region. The information generated by the GEF support will support the full integration of PES principles into sustainable financial schemes for CORB, including the OKACOM Endowment Fund.

In carrying out this work the project will follow GEF guidance and carefully record the development steps in order to maximise the learning opportunity.

*Activity 1.5: Strengthening of OKACOM mandate and OKASEC technical capacity (SAP BDMF 1.3)*

The project will work closely with the Swedish International Development Agency (SIDA) and OKASEC to execute this activity and incorporate SAP and Five Year Plan Part 1 interventions which target Institutional and Organisational Capacity Development. It will provide support in the form of international and national consultancy and travel logistics to deliver the following outputs:

- SAP implementation plan agreed (FYP)
- Technical Committees established and supported for project duration (FYP 3.2, SAP BDMF 1.5 and 1.6)
- Establishment and support of NAP inter-sectoral committees for the project duration (SAP BDMF 2.2.1, 2.3.1 and 2.3.2, and BDMF 7)
- Monitoring and Evaluation Framework for SAP and NAP implementation (SAP BDMF 1.3.6)
- Support for negotiations for enhanced OKACOM agreement for Management of Natural Resources in the Cubango-Okavango River Basin (SAP BDMF 1.1.2)
- Transboundary Environmental Assessment guidelines and notification procedures negotiated and agreed (SAP BDMF 3.2.1 and 3.3.1)

These activities will be undertaken principally in the first two years of the project. In addition, the project will assist in the updating and rolling over of the Five Year Plan at the end of the prescribed planning period.

The GEF project will assist in strengthening the general management structure of OKASEC and associated bodies, working in close association with the SIDA. Under the OKACOM Five Year plan SIDA support will be used to strengthen the administrative and financial capacity of the Secretariat, enabling it to be better equipped and trained to implement projects. In parallel the GEF project will establish and support the Technical Committees (Working Groups) for the BDMP and Thematic Areas 1 and 2. These bodies will provide technical guidance from OKACOM to the partner projects including the GEF project and will meet at six monthly intervals.

The project will help OKACOM address the visioning process, which has had attention but has not yet been finalised. Although a high level vision has been established it is not underpinned by environmental or water quality objectives and therefore is an aspirational target, which is difficult to measure. Putting the vision on a firm scientific footing is particularly important if the countries decide to develop a binding enhanced agreement. OKACOM will be consulted regarding the process by which the vision will be developed and the form of the vision during the inception phase and coordinated with the SIDA support project.

*Activity 1.6: Programme Communications and Information, and Knowledge Management (SAP BDMF 1.3.4., 6.1.1 – 6.4.1 and FYP Part 1 A1 and A2)*

In conjunction with SIDA the project will support the communication and information strategy development under the Five Year Plan and, based on needs assessment for OKASEC staff (A1.3), establish a development programme focusing on water resource issues. The communications and information strategy will include differing elements including outreach programmes, web-site management, knowledge management and development of lessons learnt. The Communication and Information Strategy will put special emphasis on gender and youth empowerment through communication and knowledge.

The project will also actively support South to South Cooperation, in particular with the River Basin Organisations in Africa, and through interactions with other GEF IW projects facilitated by IW: LEARN and other global fora. The project will commit at least 1% of GEF grant to participate in GEF International Waters Conferences, regional IW: LEARN meetings, produce IW Experience Notes, and keep the project page of the IW:LEARN website updated with key information and documents.

*Activity 1.7: Strengthening of OKACOM's management capacity through the enhanced Financial, Administrative, and Procurement capacity of OKASEC*

For the Cubango-Okavango River Basin SAP to be effectively implemented, certain priority activities are best executed by OKACOM directly. For this to happen, OKACOM needs to further strengthen its financial and administrative capacity of OKASEC.

OKACOM was subject to the System-based Audit conducted by SIDA after they had completed the direct execution of the SIDA-financed phase I project and the UNDP Capacity Assessment as a UNDP Implementing Partner, during the project preparatory phase of this project. The two assessments have produced a number of recommendations that help further strengthen the Financial, Administrative, and Procurement capacity of OKASEC.

The project will provide targeted support to the OKACOM to enhance their Financial, Administrative and Procurement capacity in a way that will ensure the sustainability of enhanced capacity beyond the project implementation period.

## **2.10 Component 2: Environmentally Conscious Livelihoods and Socio-Economic Development Demonstration Projects**

The expected outcome of component 2 is:

**Outcome 3: Environmentally sound socioeconomic development demonstrated in the basin to allow the basin population to improve their socioeconomic status with minimum adverse impacts to and enhanced protection of the basin ecosystem.**

To achieve this outcome, the project will deliver a set of outputs as listed below:

3.1 M&E frameworks designed to monitor the demonstration progress and effectiveness

3.2 Community-based Tourism activities demonstrated and documented

3.3 Sustainable community-based fisheries demonstrated and documented

3.4 Community-based climate change adaptation measures demonstrated to improve food security and resilience through application of alternative/conservation agricultural practices

3.5 Replication Strategies developed to promote further environmentally sound socioeconomic development activities in the basin, based on lessons learned and knowledge acquired from demonstration projects.

The IFA studies showed that ecosystem services provided by the Cubango-Okavango to the basin communities are considerable and their value when compared with conventional water resource developments (irrigation, hydro-power) has been underestimated, particularly as a direct contribution to the socioeconomic status of the basin communities. This is recognised in the OKACOM SAP document in which there is a call to promote a range of livelihoods closely linked to the basin's ecological services and food security. In response, the GEF project, with guidance from the countries, has chosen three demonstration areas, linked to policy guidance documents currently under development, for demonstrating:

- Under a basin-wide transboundary tourism strategy community based tourism demonstration projects established and tested.
- Under transboundary fisheries management guidelines community level interventions to protect and enhance fish stocks.
- Following on from SAREP activities, community-based activities implemented promoting food security and climate change adaptation and resilience.

The project will demonstrate low impact environmental development options where interest is not primarily the feasibility of the methods and techniques introduced, since in many cases their general suitability has already been proven, but rather the economic return of these 'alternative development pathway' options in the context of the Cubango-Okavango basin. It is hoped the demonstration projects will demonstrate more concretely the conclusion reached at the TDA stage that these options are more economic than other

conventional higher impact basin development options, such as large irrigation developments, especially when benefits to the basin communities are taken into account.

Furthermore, these community-based demonstration projects, supported through Component 2 is designed to catalyze policy outcomes before the end of the project implementation period (Output 3.5), which will influence future investment decisions by the basin states and their respective development plans at the national as well as local levels; therefore, the scale of investments might look limited and localized, but they are all designed to have long-term impacts on the trajectory of the basin development. This approach has been considered critically important by the participating countries in order to achieve both socioeconomic development in the basin and environmental sustainability

The demonstration projects will also promote mechanisms for enhanced resource management at the local and basin level including fisheries cooperatives and ecosystem monitoring. Each demonstration project will be under the guidance of a local steering committee, which include representatives from national government, local administration, community representatives, commercial stakeholders and NGOs. In some instances there are community based operations, such as Okavango Fishermen Association in Botswana (It was supported by the UNDP-GEF Biokavango project in the past.). Where there are existing and relevant community-based operations, they will be utilized as suitable local governance structures for the implementation of the demonstration activities.

A lack of economic performance assessment both at the supply and demand sides of the equation in the pilot schemes in the past, failing to draw the attention of the decision makers to their economic advantages, is seen as a major weakness of pilot projects developed in the basin in the past. Focus has been on increased productivity but for this to have meaning it has to be translated into profitability and therefore must be reflected in improved markets for the goods produced.

In order to demonstrate the potential economic advantages a sophisticated monitoring and evaluation framework needs to be designed and put in place at the beginning of the demonstration project implementation. This is a critical step in the design of the demonstration projects and will receive significant technical attention. A summary of a possible methodology is given below.

It is recommended that the economic and financial (private) Cost Benefit Analysis (CBA) approach developed and applied in the past in Botswana and Namibia and in the CORB be used. Here, conceptual technical budget and cost-benefit models of enterprises and projects are developed and populated with empirical data from quantitative and qualitative surveys. Project models incorporate enterprise models as building blocks where appropriate. This approach has been used in the Okavango Delta and in the whole CORB, respectively, using data from community surveys.

Such enterprise and project models have been applied to derive **financial** (private) returns to household, business and community investment, and thus values in terms of household, business and community livelihoods. The models also estimate **economic** returns to investment, in terms of gross and net national income. The economic values cover income and employment and are shadow priced, using criteria developed in Botswana and Namibia, so that the economic returns represent opportunity costs to the national economy concerned.

The primary measures are the direct contributions to livelihoods within the CORB, and direct contributions to the national economies. As a secondary consideration, the additional indirect and induced impacts on the national economies are also estimated, using national income multipliers, which are derived from social accounting matrices (SAMs) or input-output models. SAMs are available for the Botswana and Namibian economies.

An important characteristic of the budget/cost-benefit modelling approach recommended here is that the empirical data required generally reflect simple mean values, which are relatively easily and cheaply collected. Another is that the economic values derived are directly compatible with the aggregated national accounts, developed by all countries, as well as with the natural capital accounts, developed, at least in part, by Namibia and Botswana

In addition to the socio-economic parameters, biological parameters and the impact, positive or negative, of the demonstration activities are to be selected and measured. A biological baseline will be established at the beginning of the project, indicator species identified and a monitoring programme designed. The monitoring programmes will be tailored to each demonstration project and designed to be executed by the community.

The SAP under Thematic Areas 1 and 3 calls for a series of **demonstration projects to explore and promote low-impact, ecosystem-based livelihoods, which** support income generation of communities and empower women's participation in water resources management and decision making. They should support overall poverty reduction and inclusive growth as well as improved governance in a transboundary water context. The GEF project will support six, two per country, **demonstration** projects across the three themes described below and linked to the four thematic areas of Tourism, Human-Wildlife Conflict Mitigation, Fisheries and Food Security and Climate Change Adaptation described below.

- **Transboundary demonstration project(s) on sustainable tourism through joint ventures between up-stream and delta tourism operators and development and implementation of knowledge transfer as part of basin tourism strategy (SAP TA1 1.3.2).** Tourism development in Botswana in the delta has expanded greatly over the past twenty years. The delta tourism industry provides photographic safaris, camps and lodges with game drives, horse trails and boat safaris and makes a substantial contribution to the region's economy. It provides livelihoods and alternative income generation to the delta's population and is a clear incentive to protect the delta's resources. With this growth has come a great increase in commercial knowledge and expertise, the transfer of which could benefit the whole of the basin. Tourism in the upper catchment has not developed to the same degree, although its natural attractions are significant. The **transboundary demonstration projects on tourism** will seek out and support partnership schemes and developments between tour operators in the delta and upper basin. The UNDP-GEF support will target in 1) Development and implementation of the basin-wide tourism strategy, 2) developing and promoting pro-poor, pro-community tourism across the basin, e.g. to the Gciriku community which has been awarded a tourism concession by the government in Namibia, and 3) reducing initial investment/market risks (perceived and/or real) to open a tourism market in the Angolan and Namibian part of the basin, where tourism is not yet fully developed. **The demonstrations will be designed fully in line with the existing relevant policy framework and built on past and ongoing initiatives.** Angola at this point has limited regulation or institutional framework that help promote community-based tourism or to mainstream sustainability considerations into potential tourism in the basin compared to the other two countries, but there is an emerging initiative by the Angolan Government to develop a tourism pole in the confluence of the Cubango and Cuito. The GEF project will contribute to this government-led initiative. Botswana has developed Ngamiland Tourism Strategy which provides a framework for further developing and managing tourism in the Delta. It also has the ecotourism certification system in the Delta established by the Botswana Tourism Organisation with support from the BioKavango project and the EPSMO. Namibia has a well-established and successfully implemented CBNRM framework. The project activities will be built on these legacies from the past projects and help Angola benefit from the other countries' experience in promoting community-based tourism and mainstreaming sustainability consideration into the production sectors in the basin. The regulations on land tenure vary depending on where specifically the land in question is in the basin; therefore, the character of the land tenure will be an important factor to identify the exact location for the demonstration interventions.
- **Sustainable fisheries demonstration projects promoting the establishment of transboundary fisheries common management rules and community based applications (SAP TA1 5.1.1, 5.2.1 and 5.4).** Fisheries are an important natural resource in the basin. Unsustainable commercialization threatens some Okavango fisheries, as does use of **illegal, destructive fishing methods such as light attraction, poisons, explosives, and dragnets.** All the communities along the river are to some extent reliant for their livelihood on the seasonal fisheries. One of the most important fisheries zones on the river is the panhandle upstream of the delta between Botswana and Namibia. Commercial fishing is only practiced in the panhandle, by groups of semi-motorized small-scale fishermen; elsewhere the fishing is at the household level. In Angola, the need for conservation of fish stocks was highlighted during the TDA process. It was also reported that catches are reduced during flood season. In Namibia, the key concerns are potential overexploitation, selective gillnetting and destruction of habitats. **There was a total of 2703 fishers in the Okavango, the majority of whom (52 percent) were women. Only 3 percent (85 fishers) were commercial, with 97 percent purely subsistence<sup>2</sup>.** Fish and fishery-related data in the CORB are limited and unreliable in all three countries. As to policies and regulations, there exist the SADC Protocol on Fisheries and the Transboundary Fisheries Resources Management Plan for CORB (the latter developed with USAID SAREP support). Further, UNDP-GEF Biokavango

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<sup>2</sup> **Transboundary Fisheries Management Plan for the Cubango-Okavango River Basin (July 2013).**

project supported the Government of Botswana to develop Code of Conducts for fishing activities in the Delta and designate conservation and management areas to achieve sustainable fisheries. The proposed demonstration project will be designed within the framework set by these existing plans and regulations, and built on past and present initiatives, contributing to the implementation of the Transboundary Fisheries Management Plan. It will seek to establish a fisheries management body in the transboundary region between Namibia and Angola in order to protect and improve stocks, improve fisheries post-harvesting conservation and packaging techniques and openness to markets, thus improving livelihoods and giving income generation support. The demonstration project will promote sustainable fisheries among subsistence fishers, contribute to strengthen fish and fishery related data in the CORB through an innovative long-term monitoring with strong involvement of local communities, which will lead to the conservation of fish species diversity and actively promote the role of women in fishery development.

- **Community-based SAP demonstration projects aiming to improve food security and climate change adaptation and resilience (SAP TA3 3.2.1).** The basin is subject to both natural climate variation and climate change and the desegregation of the two effects on water resources is highly complex and difficult to determine. However, an analysis of projected climate for the basin predicts both a rise in temperature and in rainfall. Higher temperature (2-3C) will affect the south of the basin more than the north with increased evaporation. The rainfall is predicted to increase by 0-20% with the north being more affected than the south. In the dry scenario the evaporation may exceed the rainfall resulting in a decrease in the duration and frequency of inundation. To address these emerging problems, in particular the dry scenario, the project will promote measures to increase water storage and conservation; adjust the design of irrigation systems to handle longer dry spells and more intensive rainfall events; and promote rainwater harvesting. The target of the demonstration project will be to strengthen climate change resilience at the community level. The demonstration will continue the work already begun under USAID SAREP supporting measures such as communal rainwater harvesting, communal tanks and reservoirs, resilient irrigation design and drought-resistant crops. In addition the application of the conservation agriculture will be further intensified to improve livelihoods and also as an adaptation strategy for local communities.

Based on these descriptions and close consultations with the beneficiaries in each country a draft set of demonstration projects has been prepared and is presented in Annex 1. The draft demonstration projects deviate to some extent from the descriptions above, in particular, the tourism demo, since the initial proposals were thought to be too ambitious. These draft demos will be finalised and approved at the inception phase to allow the maximum input from the local communities, project implementation time and sufficient time to set the M&E baselines.

There will be six demos, two per country, with an average value of \$300K to \$400K. The project will be contracted under international tender procedures. There will be an open invitation for expressions of interest and a short-list of tenderers will be assembled in consultation with OKACOM. The GEF Project Coordination Unit based in the OKACOM secretariat will oversee the project execution. A demonstration Project Implementation Unit (PIU) will be established led by a demonstration coordinator based in Rundu, Namibia. The demonstration PIU will report to the GEF project manager based in the Project Management Unit based in the Secretariat (see section 4).

A local Steering Committee, comprised of representatives of national government, local administration and community as well as interested NGOs and stakeholders including private sectors, will be established to guide and advise the demonstration projects. Gender parity will be fully considered upon constituting Steering Committee members. Other donors will be invited to SC meetings as observers with the intention of improved coordination of ongoing and forthcoming activities they support at the local level as well as enlisting future support and collaboration. The local steering committee will ensure that the demonstration activities will be fully mainstreamed into the existing institutional settings and will advise the overall project (and PMU located in the OKACOM) as to how best the results from the demonstration activities can be reflected into policy outcomes and replication strategies for long-term sustainability.

To ensure that the activities successfully demonstrated by the project will be replicated and/or upscaled in the basin, replication strategies will be developed and promoted by the OKACOM (Output 3.5) so that low-impact, environmentally sustainable activities that support improved food security, inclusive growth, enhanced income generation, gender empowerment, climate change adaptation and resilience will be further replicated and upscaled in the basin with national budget or any other financial support.

Demonstration activities will be built upon experiences from previous GEF-financed projects, in particular the UNDP-GEF- Government of Botswana project "Building Local Capacity for Conservation and

Sustainable Use of Biodiversity in the Okavango Delta (BioKavango)" which promoted sustainable tourism in the delta and mainstreamed biodiversity management in the main production sectors of the Okavango Delta. Lessons learned from this project on how the tourism sector can directly contribute to biodiversity conservation objectives in the Okavango Delta and how biodiversity friendly management methods can be introduced into fisheries production systems will be fully reflected in the details of demonstration project design as well as implementation so that two other countries in the basin can benefit from such knowledge and experiences as well. The experience gained from this project regarding how to strengthen policy enabling environment at systemic and institutional levels will be reflected upon developing policy outcomes and replication strategies.

## 2.11 Component 3: IWRM

The expected outcome of Component 3 is:

**Outcome 4: The basin's states capacity to manage transboundary water resources based on IWRM principles enhanced, supporting the BDMF.**

To achieve this Outcome, a set of Outputs are proposed to be delivered by the project as listed below:

- 4.1 Common demand forecasting and yield assessment methodologies established
- 4.2 Assessment of groundwater resources;
- 4.3 Assessment of hydrometeorological monitoring programmes and recommendations for strengthening. Improvements funded in Angola in specific sites.
- 4.4 Sedimentation Monitoring Programme special reference to bed load; capacity building in sediment transport measurements
- 4.5 Water quality baseline survey undertaken and monitoring programme and investment strategy determined
- 4.6 Basin wide biological monitoring and socio-economic monitoring programmes
- 4.7 Harmonized assessment of water quantity and quality developed to support agreed common objectives and standards
- 4.8 Basin-wide IWRM plan

Harmonised assessment of water quantity and quality will be developed with agreed common objectives and standards. Further, the following activities have been identified critical in support of the construction of the BDMF and the basin monitoring programme. These activities are all prioritized in the CORB SAP. This wide-ranging list of activities will be refined and prioritised in relation to the BDMF development and the IWRM basin plan. Some activities are critical while others to a degree have already been addressed and some cannot be resolved wholly within the project lifetime. It is envisaged in operationalization of the SAP the balance of activities will be clarified. In all the proposed activities capacity building will be incorporated and delivered at national and regional levels. The activities are described in more detail below.

### *Activity 3.1 Common demand and yield assessment methodologies (SAP TA 2 1.2.1)*

Demand assessments and forecasting is currently inconsistent across the three countries. In the critical irrigation sector, metering is uncommon and crop norms are generally used to predict demand, with high water use rates (15,000m<sup>3</sup>/ha/a) applied and no allowance for drainage returns or on-site storage. Predicted consumption rates should reflect best modern practice not existing practice, as is presently the case. Similar empirical rules are used to assess and predict demand in the other water sectors, although not as critical. In some studies, forecast demand has been inflated with non-viable schemes, economically

and technically, being included in lists of programmed development, distorting the analysis. Different demand forecast scenarios in the TDA and studies by FAO Water Audit study have led to very different conclusions regarding the development space. There needs to be agreed, robust and consistent methodologies for assessment and forecasting demand to give credence to OKACOM advice on the development space. The project will undertake a detailed review of existing demand and demand forecasts taking into account a set of growth and climate change scenarios in the first six months of the project. A study of climate change impacts has already been undertaken as part of SAREP project, which will be used for this demand review.

The project will also review the water resource yield methodologies used in the three countries, both annual average and drought yields and common approaches will be suggested for both SW and GW sources. However, as noted above, the countries are not at the stage of agreeing on the system yield and thus the development space. It is also noted, that the yield of the system has many aspects and many bounds and there is not a single prescriptive methodology for its assessment. It is proposed instead to develop an adaptive management approach BDMF, which will allow development impacts to be carefully assessed and monitored on a case by case basis- see section 2.9.

Under this activity the project will review national permitting and licencing procedures and look at the potential of development of a basin-wide water cadastre for water abstractions (SW and GW) as part of the IMS (see Activity 1.4) and database for WEAP resource model. The USAID SAREP project has undertaken comprehensive studies of land-use and land-use planning and it is important that the linkage with water use is established and understood.

The Climate Change assessment which has been undertaken by the SAREP project will be carefully reviewed and its implications on water resource availability evaluated. If the study is insufficient then the project will commission its own evaluation.

#### *Activity 3.2 Groundwater resource assessment (SAP TA 2 3.1.1. and 3.1.3.)*

Knowledge of groundwater resources in the basin is very limited. In the FAO Water Audit only brief descriptions are provided and it is not clear how groundwater contribute or could contribute to the overall water balance in the basin. In most cases it is understood that the surface water and groundwater systems are separate; however, there are locations where the groundwater augments the surface water flows. There is also evidence of an increase in groundwater resources in the basin, which needs to be investigated. A desk study will be conducted to establish the potential value of groundwater to augment surface water resources and where perhaps they can be used conjunctively. If the potential is significant, more detailed work will be commissioned, including perhaps fieldwork. However this is seen as a long-term development and these studies only initial step in a much bigger groundwater resource assessment.

Groundwater regulation and management in the basin is limited, as is most other places in Africa, and its usage is tied to land use with no overall strategic view. There are no known conjunctive use or management schemes in the basin. The desktop study will include the review of the legal and policy framework related to the groundwater governance in the basin states, if not such review has not been already conducted by the SADC Groundwater project during its first phase. OKACOM has already looking into issues related to groundwater resources management in the basin. Its Water Resources Technical Committee suggested to include groundwater issues in the OKACOM hydrological data sharing protocol. GEF project will assist OKACOM in formulating policy recommendations regarding the groundwater governance for the basin.

The project will help increase the knowledge on groundwater resources in the basin. OKACOM will incorporate groundwater-related data into DSS. OKACOM will explore low-cost options to collect groundwater data monitoring, utilizing existing boreholes in the basin to feed into DSS, with support from EU.

The project will liaise closely with the World Bank-GEF SADC GW project to support the basin states to strengthen their capacity required for improved conjunctive management of the surface and groundwater resources in the basin.

#### *Activity 3.3: Review of hydro-meteorological monitoring programmes and recommendations for strengthening (SAP TA2 2.1.1.)*

The FAO Water Audit contains a brief review of the hydrometeorological monitoring programmes and systems in the three countries and, although not fully assessed in Angola, presents a relatively good picture regarding coverage and quality. The audit's key recommendation is to establish a hydrological station in the lower reaches of the Cuito River in Angola to capture the different seasonal and inter-annual dynamics compared to the gauged Cubango River. The construction of a new station is beyond the scope of the GEF project, however, linked to the proposals for strengthening of the WEAP system and facilitation of the IMS (sections 2.7.3 and 2.7.4), there are a number of interventions which the project could undertake to support this intervention.

Data (hydrometric and climate monitoring) seem the most critical issue. In spite of the progress in data sharing and monitoring activities in the Basin, availability of weather and hydrometric data is still limited, particularly in Angola. The following activities are proposed under this activity:

- Evaluation of progress in operationalization of weather and hydrometric monitoring network in the Angolan part of the catchment, and alleviation of eventual deficiencies through providing training and/or monitoring hardware. Particularly, interest will be centred on monitoring of rainfall in an appropriate network throughout Angola, and monitoring of Cuito River flows (which are mostly responsible for maintaining the magnitude of low flow period discharges).
- Targeted studies assessing usability of "surrogate" satellite data (satellite rainfall datasets, satellite-derived water levels etc., satellite-based evaporation) for monitoring purposes and for filling up the data gap between the 1980s and now.

In addition to the above, the project has allocated funds of up to US\$150,000 to assist the re-instrumentation of existing stations in Angola, the design and implementation of which will be undertaken in the first two years of project implementation.

#### *Activity 3.4: Review of sediment monitoring programme and recommendations for strengthening (SAP TA 2 8.1.1)*

Sediment dynamics is recognised in the TDA as an area of concern and are both complex and critical to the health of the river and wetland systems. There is a strong linkage between the land use and water resource management with increased erosion due to land use changes and potential reduction of silt loading due to upstream impoundments related to hydro-power developments. However there is little known about the sedimentation regimes of the entire system and this lack of information, coupled with evidence that the rising population pressure, increase in tourism and agricultural activities, is having an impact on the system. To address this situation the SAP has called for improved land-use mapping, which has been addressed under the SAREP project, and design and establishment of a sediment-monitoring programme.

There is currently no long-term sediment transport-monitoring programme in place for the Cubango-Okavango River (i.e. across all of the three riparian states) and OKACOM have commissioned an initial baseline study and a monitoring programme design. The existing proposal for the monitoring of bed sediment transport and monitoring programme design (Jeffares and Green, 2013) will be adequate to capture the main aspects of the process considering the size of the system and logistical and financial constraints and it is currently unclear how the GEF project will complement this work. This will be however be clarified at the inception phase but some initial thoughts are presented below.

The most important gaps, given the existing knowledge base and proposed monitoring system, relate to the upstream, causal factors. This includes not only potential disturbance in sediment transport resulting from river damming, but also issues related to land cover transformation in the source areas and resulting potential to increase erosion and sediment loads in the river system.

The following activities will be undertaken to fill these gaps:

- assessment of current erosion and erodibility in the Cubango-Okavango River basin upstream from the Okavango Delta, particularly in the context of the on-going transformation of land cover.
- studies aimed at better understanding of factors affecting loads and variability, as well as identification of sources and chemistry, of suspended sediment. Suspended sediment, although of lower geomorphological significance compared to bed load, is nonetheless important from an ecological point of view - it has strong potential to negatively influence aquatic life and wetland

functioning in general, and this potential might be realised at relatively short time scales (years to decades).

GEF project will support the erosion and erodibility assessment, which consists of remote sensing analysis, field sampling, laboratory analyses, etc., the development of the sedimentation transport model, and the sedimentation monitoring framework.

Actual infrastructure needs for monitoring will be supported by the EU initiative.

*Activity 3.5: Water quality baseline survey and improvement strategy and investment programme (SAP TA2 6.1.1., 6.2.1. and 6.3.1)*

Water quality is described in the TDA as a growing local problem, but it is not considered a priority transboundary issue; however this is based on limited data and information. The countries are concerned about its worsening status and conscious that there are no water quality monitoring programmes in place in the basin and the limited capacity not only in the basin but also the countries themselves to monitor and analyse for water quality. For this reason the project will focus on water quality issues under component 3 and undertake the following activities:

- Baseline surveys of hot spots in the basin to establish the nature and extent of the existing problem. The surveys will include a review of licensed and unlicensed discharges in the basin and an evaluation of point and diffuse sources.
- Review of national policy, legislation and regulations, including environmental quality standards and discharge standards.
- Review of capacity at national and basin level and design and implementation of training programme. The programme will be based on the learning by doing principle and national laboratories will be involved in conducting the baseline surveys.
- Design of a basin water quality monitoring plan and action plan.

It is envisaged that these activities alongside those of the biological and socio-economic monitoring (2.9.6) will cost more than half the component budget.

*Activity 3.6: Design of basin wide biological monitoring and socio-economic monitoring programmes (SAP BDMF 5.2.3 and 5.2.4)*

The development of a biological monitoring programme in support of the IFA will require first the establishment of a baseline at the key IFA reaches/areas. It is suggested that eight IFA sites be selected in the initial stage and later the need for additional sites based on maximising coverage of the ecosystems and planned developments be assessed, taking into account time and cost constraints.

Baseline surveys will be conducted over 3 years minimum in order to capture seasonal and annual fluctuations. The strategy will not provide baseline data for individual development projects, as the nature, timing and location of these is not set but rather to select key sensitive areas. The baseline will include:

- hydrology, water levels, physio-chemical conditions,
- habitat distribution and availability,
- Vegetation - abundance, species composition, distribution and recruitment success,
- Macro-invertebrates - species composition, relative abundances and distribution among key flow-related habitats
- Fish - species composition and distribution among key flow-related habitats,
- Mammals and reptiles - abundance, species composition and distribution among key flow-related habitats;
- Birds - abundance, species composition and distribution among key flow-related habitats

The design of the monitoring programme will include the selection of indicators that are strong drivers of ecosystem function, and/or have strong links to development and preparation of sampling and analysis protocols for these indicator species.

In the design of a biological monitoring programme the most important areas for the Cubango-Okavango are the river's floodplains. The most critical are on the Cuito, around Rundu, and the Delta, to the extent to

which it has not been covered. The floodplain vegetation needs to be mapped and linked to the inundation patterns, so one can correlate growth of the different species to the flow conditions. Similarly, such correlations should be established for the various animals groups and linked to the movements to and from the floodplains. There also needs to be linkage with the social use of the floodplains – thatching, fishing, grazing, and recreation – with the biotic elements, requiring control areas to be identified.

The biological monitoring programme will be linked to the water quality monitoring programmes discussed above to establish correlations and to make initial attempts at the development of an ecological monitoring system. However, it should be noted that this is a difficult and complex task and there is no guarantee of progress in this objective within the timescale of the project.

The design of any biological and socio-economic monitoring programme will be linked closely to the process of improving the IFA model, during which the key indicators for monitoring and identification of thresholds would be determined.

For the socio-economic parameters, the project will support a set of baseline quantitative and qualitative surveys needed to establish a time series database. The surveys would include physical and price data, which go into the private/economic cost-benefit analysis models and, as part of the new work, the mapping and valuation of regulatory and cultural ecosystem services, to include such values as flood control, water purification, carbon sequestration, groundwater replenishment, bank stabilization, local, regional, and global preservation values. Turpie et al. (2006) has made a start to estimating these values in the Delta, but they have not been addressed so far in the IFA to any extent.

All the social and economic survey and monitoring naturally needs to be backed up by similar work on the biophysical relationships in the IFA. This is important therefore that the two monitoring programmes are linked and where possible closely tied to the demonstration projects of component 2. It is particularly so in the case of the indirect use values and non-use values, because economic valuation of these is dependent on a sound understanding of the biophysical processes involved.

The design of the biological and socio-economic monitoring programmes will be undertaken in the first six months of project implementation to ensure the maximum time for implementation.

### *Activity 3.7: IWRM basin plan (SAP TA 2 10 and BDMF 2.2.1, 4.3.1, 4.4.1 and 4.5.1)*

The final activity of this component, drawing together all the various elements, will be the drafting of a basin wide IWRM plan. The plan will focus on the Cubango-Okavango basin but will make reference to and be integrated with the higher planning scale national IWRM plans. The purpose of the CORB IWRM plan will be to establish and reinforce the basin priorities in any national strategy or policy, instead of the reverse situation, which currently seems to be the case. The basin IWRM plan will be complementary to the SAP and will reflect much of its content but it will crucially incorporate a water resource strategy for the basin, the development of which will be the focus for discussions on the 'development space' for water resources in the basin.

The development of the basin IWRM plan, bringing together three sub-basin plans, will be a difficult task and will require the involvement of a range of stakeholders from the different sectors of governments, civil societies, basin communities as well as private sectors active in the basin in each country, in line with the OKACOM multi-stakeholder integration strategy. The process is going to be iterative, balancing and trading off national and regional concerns and priorities. The institutional structures in the basin at each country level will need to be carefully structured to accommodate the patchwork of local administrations and will require the horizontal as well as vertical lines of communication and decision making to be defined with both regulators and operators. The costs of IWRM implementation can be considerable and the benefits not immediately tangible. It is proposed that plan development commences in the third year of project implementation and be programmed over 18 months.

The project will utilize a multi-stakeholder forum that will facilitate inclusive IWRM planning process within the Member States and across the basin, as well as long-term view towards implementation of the plan. The already existing basin authorities established by the Member States to support the work of OKACOM at the basin level will be complemented by the multi-stakeholder forum to achieve the broader stakeholder engagement. The members of the forum will comprise representatives of the local administrations, community groups, NGOs, private sectors and a wide range of stakeholders and will include national representation. Gender parity will be fully considered when engaging in stakeholders. The forum will

contribute to the development of the sub-basin IWRM plan, which will be an evolution of the NAP developed in 2012, led by the respective basin authorities. The basin IWRM Plan will be fully in line with the CORB SAP.

In addition to the above, under this activity, the project will undertake a feasibility study, leading to the establishment of an early warning system for flooding in the basin in partnership with other initiatives.

Flooding is a priority issue for Namibia and in particular for Angola however the feasibility of any early warning system will depend upon the operational status of the monitoring system in the upper catchment and the communications network between the three countries.

## 2.12 Cross-cutting issues - Gender Analysis and Strategy

OKACOM has developed a Gender Strategy which will address gender issues once implemented. The project will support some of the key actions of the strategy which are articulated below.

### *Gender inclusive capacity building*

The success of any gender mainstreaming process depends on developing the full potential of all the different actors involved in its implementation. A capacity building process is therefore required to ensure that the actors involved are equipped with the knowledge and skills to implement the gender mainstreaming strategy. Capacity building is therefore critical in realising the objectives of a gender mainstreaming process.

Capacity building from a gender perspective needs to recognize, firstly, the capacity needs of both men and women in the structure of OKACOM and a broad range of other stakeholders that will assist OKACOM in implementing the gender strategy. These range from country specific stakeholders such as water ministries to basin-wide organisations that are committed to work on the ground directly with communities. Capacity development for gender mainstreaming therefore will be implemented for individuals, government departments and Non-Governmental Organisations involved in implementation of OKACOM activities.

OKACOM intends to move beyond 'gender awareness' activities where the focus is on understanding key gender concepts, to meaningfully strengthen country-specific gender capacities, capacities of the OBSC, Technical committees and GFPs, and gender mainstreaming skills for the Secretariat and all those actors involved in implementation of the gender strategy. This will subsequently lead to a culture of institutionalized gender responsiveness within OKACOM. Capacity building is therefore instrumental in advancing the gender mainstreaming objective of OKACOM, and in measuring the impact of OKACOM activities on women and men, especially on the poorest.

### *Gender Action Plan*

Gender mainstreaming is a sound and viable strategy, but to be it relevant to operations, and more focused on results, a Gender Action Plan (GAP) will be developed. A GAP is an effective gender mainstreaming tool that assists implementation of gender mainstreaming in an organisation. The GAP should be informed by the gender mainstreaming strategy. To contribute to the overall goal of "... advancement of gender equality throughout OKACOM", the GAP will require sound gender 'architecture', such as focal points at various OKACOM levels.

For the implementation of the GAP a logical framework listing activities, outputs, outcomes and long-term impacts based on the strategy will be developed. The development of a monitoring and evaluation framework to ensure that the results of activities are monitored for impact will be initiated. Further, the implementation of the GAP will require the commitment, participation and contribution of all OKACOM commissioners, OBSC and Task Forces members, and the OKACOM Secretariat.

### 3. Project Results Framework and Total Budget Workplan

#### 3.1 Project Results Framework

<p>This project will contribute to achieving the following Country Programme Outcome as defined in CPAP or CPD: n/a          The project will contribute to Outcome 2 of the UNDP Strategic Plan: Citizen expectations for voice, development, the rule of law and accountability are met by stronger systems of democratic governance</p>					
<p>Country Programme Outcome Indicators: n/a          The project will contribute to UNDP Strategic Plan Output 2.5. Legal and regulatory frameworks, policies and institutions enabled to ensure the conservation, sustainable use, and access and benefit sharing of natural resources, biodiversity and ecosystems, in line with international conventions and national legislation          Output indicator 2.5.2: Number of countries implementing national and local plans for Integrated Water Resources Management.</p>					
<p>Primary applicable Key Environment and Sustainable Development Key Result Area (same as that on the cover page, circle one):          2. Catalyzing environmental finance</p>					
<p>Applicable GEF Strategic Objective and Program: IW-1 and IW-3 (GEF-5) (Cf. It will fit IW-1 and IW-2 for GEF-6)</p>					
<p>Applicable GEF Expected Outcomes: (From GEF-5 Results Framework)  <b>Outcome 1.1:</b> Implementation of agreed Strategic Action Programmes (SAPs) incorporates transboundary IWRM principles (including environment and groundwater) and policy/ legal/institutional reforms into national/local plans  <b>Outcome 1.3:</b> Innovative solutions implemented for reduced pollution, improved water use efficiency, sustainable fisheries with rights-based management, IWRM, water supply protection in SIDS, and aquifer and catchment protection  <b>Outcome 3.1:</b> Political commitment, shared vision, and institutional capacity demonstrated for joint, ecosystem-based management of waterbodies and local ICM principles  <b>Outcome 3.3:</b> IW portfolio capacity and performance enhanced from active learning/KM/experience sharing</p>					
<p>Applicable GEF Outcome Indicators: (from GEF-5 Results Framework)  <b>Indicator 1.1:</b> Implementation of national/local reforms; functioning of national inter-ministry committees  <b>Indicator 1.3:</b> Measurable water-related results from local demonstrations  <b>Indicators 3.1:</b> Agreed SAPs at ministerial level with considerations for climatic variability and change; functioning national inter-ministry committees.  <b>Indicator 3.3:</b> GEF 5 performance improved over GEF 4 per data from IW Tracking Tool; capacity surveys.</p>					
	<b>Indicator</b>	<b>Baseline</b>	<b>Targets End of Project</b>	<b>Source of verification</b>	<b>Risks and Assumptions</b>

<b>Project Objective<sup>3</sup></b> <b>Strengthening the joint management and cooperative decision making capacity of the Cubango-Okavango River basin states on the optimal utilization of natural resources in the basin, with the aim to support the socio-economic development of the basin communities while sustaining the health of the basin ecosystems.</b>	OKACOM governance documents and institutional structure strengthened for stronger regional cooperation and joint management	A set of governance documents including OKACOM Agreement exist but they precede the development and endorsement of the SAP. Upon the completion of the SAP, an Institutional Review has been conducted to better align the OKACOM structure to the SAP.	A comprehensive governance review, including the legal status of the OKACOM Agreements conducted; Recommendation implemented; OKACOM's institutional and governance capacity strengthened for the joint management of the basin.	A legal instrument (a revised OKACOM agreement)  Any record of review process (minutes OKACOM/OBS C/Institutional Task Force meetings)	Countries decide to expand the scope of OKACOM's mandate to ensure better alignment with the scope of the SAP.
	Strengthened technical capacity of the OKACOM for joint management and cooperative decision making and policy discussions [A3.1; A3.3; A3.4; A3.5 ]	No TB WRM issues are being translated into policy and institutional development questions due to the absence of a policy analysis unit (of OKACOM); No evidence of policy analysis and advise mainstreamed in OKACOM TB Management practices except for SAP; No OKACOM	At least 1 TB management issue per SAP Thematic Area translated into a formal recommendation per year by the end of the Year 2 of the project implementation.  At least 85% of all OKACOM derived policy advice is translated into country specific regulations or management procedures in the CORB by the end of the project  At least 85% of all OKACOM related publications undergo a peer review	Review of policy advice being provided per thematic area  Review of country specific regulations being gazetted on TB resources management.  Review of technical products	Policy Advisory Unit established and staffed by OKACOM before the end of the Year 1 of the project implementation  PAU will have the required technical expertise to finalize proper identification of TB management issues and translate into a policy advice.  There are substantive TB WRM issues that can

<sup>3</sup> Objective (Atlas output) monitored quarterly ERBM and annually in APR/PIR

	technical products have been put through peer review systematically except for TDA and associated technical reports.	mechanism by the end of the Year 2 of the project implementation.	published by OKACOM	<p>be only be addressed by policy reforms.</p> <p>Policy advise being provided is supported by convincing evidence in the form of clarity of facts and scientific robustness</p> <p>An adequate pool of technical experts are available within the region and willing to assist OKACOM with the required peer review mechanisms</p> <p>Policy harmonization can further steer TB Cooperation.</p>
Increased financial investments by countries and other partners towards the basin resources management and SAP implementation	The regular income of OKACOM is limited to the country contribution (\$100,000/country/year as of 2014)	The sustainable income flow to the OKACOM increased and diversified by 50% by 2020	OKACOM financial report	<p>Botswana and Namibia's Middle-Income Status may limit donor support to the OKACOM and/or its basin states.</p> <p>Time required for the sustainable financing scheme to take off.</p>
# of people actively engaged in the low-impact, environmentally sustainable development activities in the basin (gender disaggregated data)	A number of community-based activities implemented in the basin, but its individual or aggregated economic impacts not yet assessed.	6 demo projects successfully demonstrating significant socioeconomic impacts on the basin communities' livelihood from low-impact environmentally sensible development activities demonstrated in the basin.	<p>Demo progress reports</p> <p>Economic, social and environmental impact analysis of the demonstration</p>	Migration of people within the basin and beyond during the project implementation period might pose challenges in tracking the 3 of beneficiaries from the demonstration activities.

	will be collected on participation in environmentally sustainable activities and on the improvement of socioeconomic status)	# to be assessed during the demo inception period.	# of targeted people to be determined during the demo inception period.	project results, with gender disaggregated data.	
	# of hectares under better management	To be determined during the inception period	To be determined during the inception period	Demo progress report, PIRs	
	Gender mainstreaming and women empowerment visibly advanced in the basin.	OKACOM Gender Strategy approved by OKACOM in 2015, but its implementation not tracked with a systematic M&E process.	Gender Action Plan, which includes a M&E plan, developed by end Year 1.  Baseline data established for each demonstration for selected key gender indicators before the demonstration implementation starts.  Gender mainstreaming progress tracked systematically using the M&E Plan and reported to OKACOM as a standing item.	Gender Action Plan  M&E Plan  Gender baseline info in the demonstration inception reports  OKACOM Integrated Annual Progress Report	Quantitative indicators may not provide true status of gender mainstreaming progress; thus complemented with qualitative indicators.
<b>Outcome 1<sup>4</sup></b> <b>A shared long-term basin development vision and concept of a development space [LFA 2 Output 5.1; LFA1 Outputs 2.3 &amp; 4.2]</b>	A long-term basin vision agreed, underpinned by environmental quality objectives adopted by the countries.[LFA2 Output 5.1; B0.1.1]	A long-term basin vision not yet established.	The Shared basin Vision developed and adopted by the OKACOM by the end of Year 1 of the project implementation.	OKACOM meeting minutes	Effective consultation and inclusion of stakeholders will be adhered to in the visioning exercise.

<sup>4</sup> All outcomes monitored annually in the APR/PIR. It is highly recommended not to have more than 4 outcomes.

<p>Initial boundaries set for development space. [LFA2 Output 5.1]</p>	<p>The concept of development space embraced by the OKACOM. No development space defined yet.</p>	<p>Development Space discussed by the three countries and the initial boundaries determined by Year 2 based on the basin data and assessment available to OKACOM and reviewed by Year 4.</p>	<p>OKACOM meeting minutes  Workshop minutes</p>	<p>Countries willing to balance the development needs and the importance of maintaining a certain level of the ecosystem integrity in the basin.  OKACOM is able to make evidence-based, influential policy advice to the countries for the needs to define the development space fully supported by the countries.</p>
<p>Customized Decision Support Systems relevant to OKACOM developed and used. [LFA1 Output 2.3; A2.3]</p>	<p>Water Evaluation and Planning System (WEAP) has been used in the Okavango but on an ad hoc, project basis (e.g. in the framework of the Integrated Flows Assessment and Cubango-Okavango River Basin Water Audit (CORBWA) project.) and no institutional or technical capacity built in OKACOM to use it as a basis for DSS. WEAP can be a suitable candidate for a water management model underlying basin management</p>	<p>Technical capacity for the development and application of WEAP developed in OKACOM as well as in the countries by end of Year 2 of the project implementation.  Hydrological model underlying the WEAP improved to strengthen the WEAP by the end of Year 2.  IFA improved.  Robust DSS established and strengthened with improved WEAP and IFA by Year 3.  DSS fully integrated into the work of Policy Analysis and Programme Coordination Units by Year 3.</p>	<p>Interviews with trained staff. Records of the training sessions and a working group.  Review of the WEAP and IFA by experts.  Policy Advisory notes/brief backed up by DSS results.</p>	<p>Costs associated with the renovation of software licenses are affordable.  OKACOM Staff and technical staff from the governments welcome new technologies and actively participate in capacity development.  Countries are willing to link existing models to create the basin-wide models in the most cost effective way.  Applications and customised software are continuously used within specific government agencies, technical committees and National</p>

		decision support system. IFA was also applied in the basin during the TDA scenario development, but no technical capacity was built in OKACOM.			Implementation Unit of NAP.
	Design and agreement of an Information Management Systems to accommodate both live and static data.[LFA1 Output 2.2; A2.2: A systems development capacity established and relevant applications/software customized for OKACOM specific needs]	Data management and exchange restricted to static data and hosted by external institutions	Basin information management systems strengthened to accommodate both live and static data.  Basin information management systems used to support DSS and decision framework	Review of databases managed by OKACOM  Survey on the database usage, usability, and usefulness	Countries and other institutions are willing to share live operational data and information.
	Transboundary PES principles fully incorporated in OKACOM's sustainable financial mechanisms, including the OKACOM Endowment	Some studies on PES conducted, but no PES scheme established. The idea of a PES scheme has evolved into an endowment fund due to the complexity of transboundary elements. Efforts to	Transboundary PES principles fully incorporated in OKACOM's sustainable financial mechanisms, including the OKACOM Endowment Fund to support the SAP implementation by the end of Year 3 of the project implementation	OKACOM reports & minutes	Willingness-to-pay for the healthy ecosystem of the Okavango basin is high enough to attract funds for the effective operation of sustainable financial mechanisms for CORB.

	Fund.[LFA1 Output 4.2]	establish the Endowment Fund is underway.			
<b>Outcome 2 Strengthened management framework including enhanced OKACOM mandates</b>	SAP and NAP operationalised & M&E framework to monitor SAP/NAP implementation progress designed and applied[LFA1 Output 4.1]	Some activities prioritized under NAPs and SAP under implementation but no systematic means to monitor, track and report the SAP/NAP implementation progress or the effectiveness of the SAP/NAP implementation	A set of indicators to monitor, track and report the SAP and NAP implementation progress agreed by the end of Year 1 of the project implementation.  SAP/NAP implementation progress reported to the OKACOM using the agreed indicators from Year 2 onwards  SAP/NAP implementation progress reported in the OKACOM Annual Report from Year 3 onwards	OKACOM/OBS C meeting minutes  OKACOM annual report	
	Revision of the OKACOM agreement to align its mandates and legal status to effectively monitor and coordinate SAP implementation. [LFA1 Output 4.1]	The original OKACOM Agreement and other governance document exist. Institutional Analysis approved by OKACOM to align OKACOM with SAP but yet to be implemented	OKACOM agreement and a suite of governance document reviewed and revised, as necessary, to align better by the Year 2 of the project implementation	Report on the review of the OKACOM governance documents  Revised OKACOM Agreements  OKACOM meeting minutes	Strong capacity and engagement of the OKACOM Institutional Task Force.  Negotiations regarding the OKACOM Agreement revision will progress in a timely manner.
	Strengthened OKASEC with technical capability to manage and operate the DSS and IMS. [LFA1 Outputs 2.2 & 2.3]	OKASEC under resourced, limited capacity to coordinate technical initiatives, no in-house capacity to	Technical capacity built to manage DSS and IMS by the end of Year 3 of the project implementation, either in-house or through a long-term agreement.	Relevant OKACOM meeting minutes	Sufficient sustainable financing agreed among the countries to strengthening technical capacity of the OKACOM

		operate DSS and IMS  Recommendations for the institutional reform approved by the OKACOM			
Transboundary EIA Guidelines and procedures developed and adopted by OKACOM [LFA2 Output 5.1]	SADC Protocol on Environment exists.  No TB EIA Guidelines and procedures specific to the CORB exist.	TB EIA Guidelines and procedures in conformity with the SADC Protocol on Environment developed by Year 2 and adopted by OKACOM by Year 3	OKACOM meeting minutes	Countries willing to develop, adopt and implement the TB EIA procedures and allocate sufficient technical and financial resources.	
Communication and Information Strategy Implemented	OKACOM Communication and Information Strategy in place <b>but not implemented.</b>  OKACOM actively participated in the IW:LEARN organized activities in the past.	<b>Implementation Plan for the Communication and Information Strategy developed with special focus on the women and youth empowerment through knowledge, incorporating recommendations from the OKACOM Gender Strategy.</b>  OKACOM actively participated and shared its experience through various IW:LEARN organized activities	<b>Communication products and tools</b>  IW:LEARN website  IW: Experience Note(s)  Workshop minutes	None	
Strengthened OKASEC with adequate Financial, Administrative, and Procurement capacity to manage donor-funded projects.	OKACOM has its own Finance and Administration Manual and Procurement Manual.  System-based audit conducted by SIDA as well as UNDP	All recommendations made by the system-based audit as well as by the UNDP Capacity Assessment fully implemented.  Improved F&A capacity of OKASEC observed by the OKACOM Institutional Task Force and/or external reviewers (MTR, TE)	OKACOM meeting minutes  OKACOM Annual Report  Terminal Evaluation Report	Financial constraints to staff OKASEC adequately.	

		Capacity Assessment have provided a set of recommendations to strengthen their F&A capacity.			
<b>Outcome 3</b> <b>Environmentally-sound socioeconomic development demonstrated in the basin to allow the basin population to improve their socioeconomic status with minimum adverse impacts to and enhanced protection of the basin ecosystem. [LFA1 Output 4.1; LFA2: Output 5.2; Regional Project Activities B1]</b>	M&E frameworks designed to monitor the demonstration progress and effectiveness [LTA1 Output 4.1]	<p>The value of low impact development as an alternative to conventional development is not fully appreciated. Data not collected for reliable analysis.</p> <p>A number of demonstration projects have been implemented but their economic, social and environmental value has not been assessed.</p> <p>The number of demo projects implemented in Angola has been limited.</p>	<p>Socio-economic evaluation of a range of low impact development options utilizing the basin's ecological services</p> <p>A set of indicators agreed to monitor, track and evaluate the environmental and socio-economic impacts of demonstration activities systematically.</p> <p>Progress on demonstration and its impacts monitored and reported to OKACOM annually at the OKACOM meeting and through the OKACOM Annual Report (gender disaggregated data will be collected and tracked.)</p>	<p>Benefit assessments of demo projects</p> <p>M&amp;E indicators</p> <p>OKACOM reports and minutes</p> <p>OKACOM Annual Report</p>	<p>Weak community and local administration support for the demo projects.</p> <p>Overwhelming logistical problems in demo project implementation.</p> <p>Difficulty in measuring the demo project benefits in the limited project time period.</p>
	Community-based Tourism activities demonstrated and documented [LFA 5.2; B1.1.1]	A few community-based tourism activities emerging in the basin, but their socioeconomic and environmental impacts not	2 demonstration activities promoting community-based tourism implemented (one in Botswana, the other in Namibia) with the emphasis on gender empowerment through the demonstration activities	Progress Reports from demo projects	<p>Communities are fully motivated to take active part in the demonstration activities.</p> <p>Full engagement and support of sub-national</p>

		systematically monitored	<p>Environmental and socio-economic impacts from community-based tourism activities captured through systematic monitoring, documented, disseminated by Year 4. (gender disaggregated data collected)</p> <p>A basin-wide tourism promotion strategy, taking into account recommendations from the OKACOM Gender Strategy, by Year 4 [SAP TA1 1.3.2]</p> <p>At least 2 partnerships with private sector in promoting sustainable tourism in the basin</p>	<p>OKACOM reports and minutes</p> <p>Communication materials</p>	and/or local government administration in the demonstration activities including systematic monitoring
	Sustainable community-based fisheries demonstrated and documented [LFA 5.2; B1.5]	A few community-based fisheries activities emerging in the basin, but their socioeconomic and environmental impacts not systematically monitored	<p>2 demonstration activities implemented (1 in Angola, 1 in Namibia), with the emphasis on gender empowerment through the demonstration activities</p> <p>Environmental and socio-economic impacts from community-based fisheries activities captured through systematic monitoring, documented, disseminated by Year 4. (gender disaggregated data collected)</p> <p>Transboundary fisheries management guidelines, taking into account recommendations from the OKACOM Gender Strategy, developed and tested at the community level by Year 3 [SAP TA1 5.1.1; 5.2.1; 5.4]</p>	<p>Progress Reports from demo projects</p> <p>OKACOM reports and minutes</p>	<p>Communities are fully motivated to take active part in the demonstration activities.</p> <p>Full engagement and support of sub-national and/or local government administration in the demonstration activities including systematic monitoring</p>

	<p>Community-based climate change adaptation measures demonstrated to improve food security and resilience through application of alternative/conservation agricultural practices [LFA 5.2; B1.3]</p>	<p>A few community-based food security activities emerging in the basin, but their socioeconomic and environmental impacts not systematically monitored by OKACOM</p>	<p>2 demonstration activities implemented (1 in Angola, 1 in Botswana), with the emphasis on gender empowerment through the demonstration activities</p> <p>Environmental, socio-economic and climate change adaptation impacts from community-based food security activities captured through systematic monitoring, documented, disseminated by Year 4. (gender disaggregated data collected)</p>	<p>Progress Reports from demo projects</p> <p>OKACOM reports and minutes</p>	<p>Communities are fully motivated to take active part in the demonstration activities.</p> <p>Full engagement and support of sub-national and/or local government administration in the demonstration activities</p>
	<p>Replication Strategies to promote further environmentally sound socioeconomic development activities in the basin [LFA 5.2]</p>	<p>No such strategies exists</p>	<p>Replication Strategy, taking into account recommendations from the OKACOM Gender Strategy, developed and adopted by countries by Year 4</p>	<p>Replication Strategy</p>	<p>Demonstration activities have produced convincing results to develop and promote an upscaling and replication strategy.</p>
<p><b>Outcome 4</b> <b>Basin's capacity to manage transboundary water resources based on the IWRM principles enhanced, supporting the Basin Development and Management Framework [LFA2 Output 5.3; B2]</b></p>	<p>Common demand forecasting and yield assessment methodologies [LFA2 Output 5.3]</p>	<p>No basin-wide data on demand forecasting.</p> <p>Existing and forecast demand measured based on high growth rates and usages and not linked to hydrological cycle.</p> <p>No common yield assessment</p>	<p>Consistent methodologies applied in evaluating demand and resource yield in the basin</p>	<p>Technical Report</p> <p>OKACOM minutes</p>	<p>Countries willing to agree on the unified approach to the demand forecasting and resource yield assessment.</p>

		methodologies agreed basin wide			
	Assessment of hydrometrological monitoring programmes and recommendations for strengthening. Improvements funded in Angola in specific sites. [LFA Output 5.3; B2.1; B2.2]	Data in the Angolan part of basin is not as strong as the other two countries.  Monitoring capacity in Angola is limited compared to the other two countries to develop a basin-wide hydrometeorological monitoring system.	Key data gaps in hydrometeorological monitoring system filled at key basin locations throughout the basin, including Angola by Year 3.  A basin-wide hydrometeorological monitoring system established by Year 3.  Common demand forecast and planning methodologies	Reports/minutes from Hydrological Task Force  OKACOM minutes	Countries willing to adopt the basin-wide monitoring system.
	Sedimentation Monitoring Programme [LFA Output 5.3]	No basin-wide, long-term sedimentation monitoring programme in place.	Assessment of erosion and erodibility in the CORB completed and submitted to OKACOM <b>Sedimentation transport model developed and included in the DSS.</b> Basin-wide sedimentation monitoring programme developed and agreed by Year 3	Technical Report  OKACOM Report	Sufficient financial and technical resources identified to implement the basin-wide, long-term sedimentation monitoring
	Water quality baseline survey undertaken and monitoring programme and improvement and investment strategy determined [LFA Output 5.3; B2.6]	Water quality monitoring conducted at country level; data availability in Angola is scarce.	Water quality review conducted  Water quality management framework established	Technical Report  OKACOM report	
	Basin wide biological monitoring and socio-economic	No basin-wide biological monitoring in place.	Basin-wide biological monitoring in place by Year 3	OKACOM Report	

	monitoring programmes LFA Output 5.3]	No socio-economic monitoring programme in place	Basin-wide socio-economic monitoring program tracking the socio-economic benefits from the CORB ecosystem services established  Community-based biological and socio-economic status monitoring systems established and tested (with participation of demo beneficiaries)		
	Assessment of GW resources and report on potential utilisation [LFA Output 5.3; B2.3]	No basin-wide groundwater assessment report	Groundwater Assessment Report with the identification of the potential options by Year 2	OKACOM report	Countries willing to share GW data available at the country level.
	IWRM basin plan developed, incorporating a Water Resources plan. [LFA 5.3]	No basin wide IWRM Plan exists	Basin wide IWRM Plan, incorporating conjunctive uses of groundwater and surface water resources <b>as well as recommendations from the OKACOM Gender Strategy</b> , developed and adopted by OKACOM by Year 4	OKACOM report	

### 3.2 Total Budget and Workplan

<b>Award ID:</b>	00090284	<b>Project ID(s):</b>	00096121
<b>Award Title:</b>	Support to the Cubango-Okavango River Basin Strategic Action Programme Implementation		
<b>Business Unit:</b>	BWA10		
<b>Project Title:</b>	Support to the Cubango-Okavango River Basin Strategic Action Programme Implementation		
<b>PIMS no.</b>	4755		
<b>Implementing Partner (Executing Agency)</b>	Permanent Okavango River Basin Water Commission (OKACOM)		

GEF Outcome/Atlas Activity	Responsible Party/Implementing Agent	Fund ID	Donor Name	Atlas Budgetary Account Code	ATLAS Budget Description	Amount Year 1 (USD)	Amount Year 2 (USD)	Amount Year 3 (USD)	Amount Year 4 (USD)	Amount Year 5 (USD)	Total (USD)	See Budget Note:
<b>OUTCOME 1:</b> A shared long-term basin development vision and concept of a development space	OKACOM	62000	GEF	71200	International Consultants	20,000	50,000	50,000	50,000	70,000	240,000	1
				71300	Local Consultants	20,000	70,000	60,000	50,000	30,000	230,000	2
				71600	Travel	20,000	20,000	20,000	0	20,000	100,000	3
				72100	Contractual services	0	40,000	100,000	40,000	0	180,000	4
				74500	Miscellaneous	0	5,000	5,000	-	0	10,000	5
					<b>Total Outcome 1</b>	<b>60,000</b>	<b>185,000</b>	<b>235,000</b>	<b>160,000</b>	<b>120,000</b>	<b>760,000</b>	
<b>OUTCOME 2:</b> Strengthened management framework including enhanced OKACOM mandates	OKACOM	62000	GEF	71200	International Consultants	10,000	80,000	60,000	25,000	0	175,000	6
				71300	Local consultants	0	80,000	100,000	50,000	30,000	260,000	7
				71600	Travel	0	60,000	60,000	60,000	50,000	230,000	8
				72100	Contractual services	0	45,000	50,000	45,000	15,000	155,000	9
				74500	Miscellaneous	0	5,000	5,000	5,000	5,000	20,000	10

					<b>Total Outcome 2</b>	<b>10,000</b>	<b>270,000</b>	<b>275,000</b>	<b>185,000</b>	<b>100,000</b>	<b>840,000</b>	
<b>OUTCOME 3:</b> Environmentally sound socio-economic development demonstrated in the basin to allow the basin population to improve their socioeconomic status with minimum adverse impacts to and enhanced protection of the basin ecosystem.	<b>OKACOM</b>	<b>62000</b>	<b>GEF</b>	71200	International Consultants	5,000	15,000	35,000	15,000	15,000	85,000	11
				71300	Local consultants	5,000	40,000	40,000	40,000	40,000	165,000	12
				71600	Travel	5,000	25,000	40,000	40,000	40,000	150,000	13
				72100	Contractual services	0	500,000	550,000	550,000	440,000	2,040,000	14
				74500	Miscellaneous	0	5,000	5,000	5,000	5,000	20,000	15
					<b>Total Outcome 3</b>	<b>15,000</b>	<b>585,000</b>	<b>670,000</b>	<b>650,000</b>	<b>540,000</b>	<b>2,460,000</b>	
<b>OUTCOME 4:</b> Basin's capacity to manage transboundary water resources based on the IWRM principles enhanced, supporting the Basin Development and Management Framework	<b>OKACOM</b>	<b>62000</b>	<b>GEF</b>	71200	International Consultants	10,000	70,000	80,000	50,000	40,000	250,000	16
				71300	Local consultants	10,000	80,000	95,000	100,000	50,000	335,000	17
				71600	Travel	10,000	40,000	50,000	50,000	20,000	170,000	18
				72100	Contractual services	0	280,000	300,000	280,000	100,000	960,000	19
				72800	IT Equipment	5,000	5,000	5,000	5,000	5,000	25,000	20
					<b>Total Outcome 4</b>	<b>35,000</b>	<b>475,000</b>	<b>530,000</b>	<b>485,000</b>	<b>215,000</b>	<b>1,740,000</b>	
<b>Project management</b> (This is not to appear as an Outcome in the Results Framework and should not exceed 10% of project budget)	<b>OKACOM</b>	<b>62000</b>	<b>GEF</b>	71200	International Consultants	10,000	20,000	25,000	25,000	20,000	100,000	21
				71300	Local Consultants	5,000	15,000	15,000	10,000	10,000	55,000	22
				71600	Travel	10,000	10,000	10,000	10,000	10,000	50,000	23
				72500	Office Supplies	5,000	5,000	5,000	5,000	5,000	25,000	24
				74500	Miscellaneous	5,000	5,000	5,000	5,000	5,000	25,000	25

				74598	Direct Project Cost	15,000	10,000	10,000	10,000	0	45,000	26
					<b>Total Management</b>	<b>50,000</b>	<b>65,000</b>	<b>70,000</b>	<b>65,000</b>	<b>50,000</b>	<b>300,000</b>	
<b>PROJECT TOTAL</b>						<b>170,000</b>	<b>1,580,000</b>	<b>1,780,000</b>	<b>1,545,000</b>	<b>1,025,000</b>	<b>6,100,000</b>	

**Summary of Funds:** <sup>5</sup>

	Year 1	Year 2	Year 3	Year 4	Year 5	Total
<b>GEF</b>	<b>170,000</b>	<b>1,580,000</b>	<b>1,780,000</b>	<b>1,545,000</b>	<b>1,025,000</b>	<b>170,000</b>
Government of Angola	20,444,444	40,888,889	40,888,889	40,888,889	40,888,889	184,000,000
Government of Botswana	20,600,000	20,600,000	20,600,000	20,600,000	20,600,000	103,000,000
Government of Namibia	1,275,270	1,275,271	1,275,271	1,275,271	1,275,271	6,376,354
OKACOM	1,052,000	1,052,000	1,052,000	1,052,000	1,052,000	5,260,000
<b>UNDP (Angola CO and CapNet)</b>	<b>95,556</b>	<b>131,111</b>	<b>131,111</b>	<b>131,111</b>	<b>131,111</b>	<b>620,000</b>
World Bank	200,000	600,000	-	-	-	800,000
UK AID/CRIDF	483,384	483,384	483,384	483,384	483,384	2,416,918
KAZA	755,857	1,511,716	1,511,716	1,511,716	1,511,716	6,802,721
USAID/SAREP	2,555,556	5,111,111	5,111,111	5,111,111	5,111,111	23,000,000
SIDA	703,610	703,609	703,609	-	-	2,110,828
Wilderness Safari (Private Sector)	750,404	1,500,807	-	-	-	2,251,211
<b>Total</b>	<b>49,086,081</b>	<b>75,437,898</b>	<b>73,537,091</b>	<b>72,598,481</b>	<b>72,078,481</b>	<b>342,738,032</b>

<sup>5</sup> Summary table should include all financing of all kinds: GEF financing, co-financing, cash, in-kind, etc.

Notes	Explanation
1-5	<p>Outcome 1 will support the development of a basin 'vision' for the Cubango-Okavango basin - in first instance for water resources - and realization of the Basin Management Development as detailed in the SAP. Key activities include creation of a mechanism for assessing water resource proposals measured against economic performance criteria (low impact development) and the bounds of the development space; the strengthening of the DSS including improved performance of the WEAP model and IFA; setting of the initial bounds for the Development Space and adaptive management; the development of a basin Information Management System; and support to a Payment for Ecological Services scheme - principally the establishment of a socio-economic baseline. The budget will be used as follows:</p> <ol style="list-style-type: none"> <li>1. Funds will be used to contract technical institutions and individuals in the development of various technical components either as discrete activities or linked to the other outcomes. The technical activities envisaged include development of WEAP, expansion of IFA, and design and initial construction of IMS. International consultants will also be hired to provide guidance to the process elements in outcome 1 as described below. Much of the survey work required to expand the IFA is covered in note 19. The estimated cost of Terminal Evaluation (\$50,000) is included as well.</li> <li>2. The outcome will require a considerable number of process and consultation activities which will be led and guided by national consultants. These activities include: development of the basin vision, agreement on BDMF and decision framework; and agreement on the mechanism for evaluation of WR development proposals and setting of initial bounds of the Development Space.</li> <li>3. Travel funds will be used to cover the cost of meetings associated with various process elements. These costs will be kept to a minimal by combing events and holding them back-to-back with scheduled OKACOM meetings.</li> <li>4. <b>To support the integration of PES principles in sustainable financial schemes</b>, it is envisaged that the project will support a baseline survey of ecological services in the basin for which a quote of \$100K has been obtained.</li> <li>5. The hardware and software costs of up-grading the WEAP and development of the IMS is estimated to cost \$80K, and includes equipping the national IMS coordination centres.</li> </ol>
6-11	<p>Outcome 2 supports the strengthening of the OKACOM basin development management framework and expansion of its mandate. The support will be closely coordinated with SIDA to ensure a minimum overlap and maximum synergy. The key activities are: support to the OKACOM agreement negotiation process; drafting and agreement of transboundary EIA procedures, including notification procedures (a key element of the decision framework); establishment of Technical Committees (BDMF, TA 1 and 2) and support for 6 monthly meetings; establishment of NAP intersectorial committees and support for annual meetings; and communication and capacity building programmes to be coordinated with SIDA.; and training of national and OKASEC experts in operation of the DSS and IMS.</p> <ol style="list-style-type: none"> <li>6. The budget for international consultants include back-stopping management support for OKACOM in the development of the decision framework and BDMF; high level advice on the development of Environmental Multilateral Agreements; and development of Transboundary EIA procedures. International consultants will also be hired to provide training to OKASEC and the national bodies in operation and construction of the DSS.</li> <li>7. National consultants will be hired to help with drafting and application of the SAP/NAP M&amp;E framework and tracking implementation across all executing ministries. Support required for development of a new OKACOM agreement and the Transboundary EIA procedures, is as yet unknown but it will be steered by national consultants embedded in the main beneficiary Ministries. These national consultants will also act as overall project coordinators for the project.</li> <li>8. The travel budget will cover the cost of all meetings relating to negotiation of the new OKACOM agreement and transboundary EIA procedures and SAP/NAP implementation reviews. It will also cover the costs of support to three technical working committees, which will meet twice a year. Further, it also support OKACOM's participation in the IW:LEARN organized activities, including GEF International Waters Conferences and IW:LEARN regional workshops.</li> </ol>

	<p>9. A budgetary allocation of \$50K has been made to cover the costs specific training of OKASEC staff they may require. This funding will be coordinated with the SIDA funding.</p> <p>10. Miscellaneous cost covers unforeseen costs relating to both Outcome 1 and 2.</p>
12-15	<p>Outcome 3 is the execution of the demonstration projects, draft project documents of which are contained in annex 1. The final project documents and detailed budgets will be completed during the inception period. There are six demo projects to be implemented across the four thematic themes, two projects per country. The budget will cover the cost of management and execution of the projects and their monitoring and evaluation which will be a key outcome component. .</p> <p>11. An international consultant will be hired to design M&amp;E frameworks for each of the six demos; this work is linked to the design of the socio-economic monitoring programme described in outcome 4 and referred to under the PES scheme in Outcome 1. The consultant will also be hired to undertake the final evaluation report. The estimated cost of Mid-Term Review (\$50,000) is included here as well.</p> <p>12. National consultants will be hired to provide day-to-day management and coordination of the demos in each country. The administrative support in the central demonstration project office Rundu, Namibia will also be covered from this budget line.</p> <p>13. Travel costs of \$50K have been allocated for the demo project coordinators</p> <p>14. The total budget for the six demo projects is \$2,150K which equates to approximately \$360K per demo, though exact allocations have yet to be determined and will be subject to competitive tender</p> <p>15. Miscellaneous costs of \$5,000/year have been set aside to support the office and a vehicle based in Rundu plus promotional activities including open days and visits.</p>
16-20	<p>Outcome 4 covers a wide range of technical activities, including specific technical studies, targeted surveys and plan development with the overall objective of realization of the BMDF (outcome 1) and application of the principles of IWRM. The budget will support the design of the monitoring programmes needed to regulate the basin water resources, both SW and GW and, in years 2, 3 and 4, will be applied to establish a baseline for chemical status, biological and socio-economic parameters. A major water quality survey will be undertaken in year 2 to identify the hot-spots and issues and will form the basis of an ambient monitoring programme and improvement programme. Linked to the IFA development there will be a two years biological monitoring at key flow locations and strategic sites. There will be a basin wide sedimentation monitoring programme developed including targeted surveys. The outcome will also support improvements in the hydrometeorological monitoring systems in Angola, critically re-equipping existing disused stations, and the development of a basin IWRM plan incorporating a water resource strategy. The IWRM plan will feed into outcome 1 and help define the Development Space.</p> <p>16. This cover the costs for international consultants to assist in the design of the sedimentation and socio-economic monitoring programmes (\$100K); the biological programme and two years monitoring (\$100K); the GW study (\$20K); a demand forecasting study (\$30K); various training (\$50K) and helping guide the IWRM planning process (\$50K).</p> <p>17. The national consultants will be involved in design and implementation of all monitoring and will be central to the IWRM plan development. In Angola a national consultant will help to identify and draft contract documents for the improvements in the hydrometeorological system.</p> <p>18. The travel costs will cover logistics for training and ad-hoc meetings related to the monitoring programme development</p> <p>19. There will be five sub-contracts under this budget line: Basin wide WQ survey (\$400K); Biological baseline monitoring (\$500K); Sediment surveys (\$150K) GW surveys (\$150 K) and Angolan hydrometeorological improvements (\$100K)</p> <p>20. Equipment costs relating to the monitoring programmes, including hard and software, and data storage devices.</p>

21-26	<p>Outcome 5 will cover the project management costs including the input of the PM and administration staff, and the running costs of the PMU to be located in the OKACOM Secretariat.</p> <ol style="list-style-type: none"><li>21. International Consultants' costs include the cost of two external evaluations as well as the time of Project Manager spent on the project administrative matters.</li><li>22. The national consultants' costs include the cost of the PMU local staff spent on the project administrative matters. It also includes the costs required for audits.</li><li>23. The travel costs of the PM for project management and coordination missions and the travel costs associated with two external evaluations.</li><li>24. The office supplies costs include equipment and stationary costs and utility costs.</li><li>25. Miscellaneous.</li><li>26. UNDP cost recovery associated with execution support provided to the Implementing Partner (OKACOM)</li></ol>
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## 4. Management arrangements

**UNDP** is the **GEF Implementing Agency** for this regional project. The UNDP Resident Representative in Botswana will be responsible for the overall delivery of the project outcomes as Principle Project Resident Representative (PPRR) of this regional project. The UNDP-GEF Regional Technical Advisor for International Water based in Addis Ababa will provide technical guidance and support, as per the Delegation of Authority Letter to be issued from UNDP-GEF to PPRR.

UNDP has selected **OKACOM** as the **Implementing Partner** for this regional project. The financial and administrative management capacity of the OKACOM Secretariat has been assessed by UNDP Botswana during the preparatory phase, based on UNDP's rules and procedures set out for selecting an inter-governmental organization as UNDP's Implementing Partner. OKACOM's experience in executing the SIDA-financed project from 2008-2012 as well as the findings and recommendations from the System-based Audit commissioned by SIDA to assess the overall management capacity of OKACOM were also considered during the capacity assessment process. Capacity needs and recommendations identified during the assessment have been incorporated into the project design and the project document development.

As the UNDP's Implementing Partner, OKACOM, will, through the PMU, be responsible for the technical and financial execution of the project following UNDP processes. It will be responsible for (i) directing and managing the project; (ii) meeting the projects stated outcomes and projected outputs in a timely manner; and (iii) making effective and efficient use of the financial resources allocated in accordance with the Project Document. The PMU will be guided by the decisions of the Project Board and recommendations from other Advisory Committees (such as RTAG below) to support the implementation of the project.

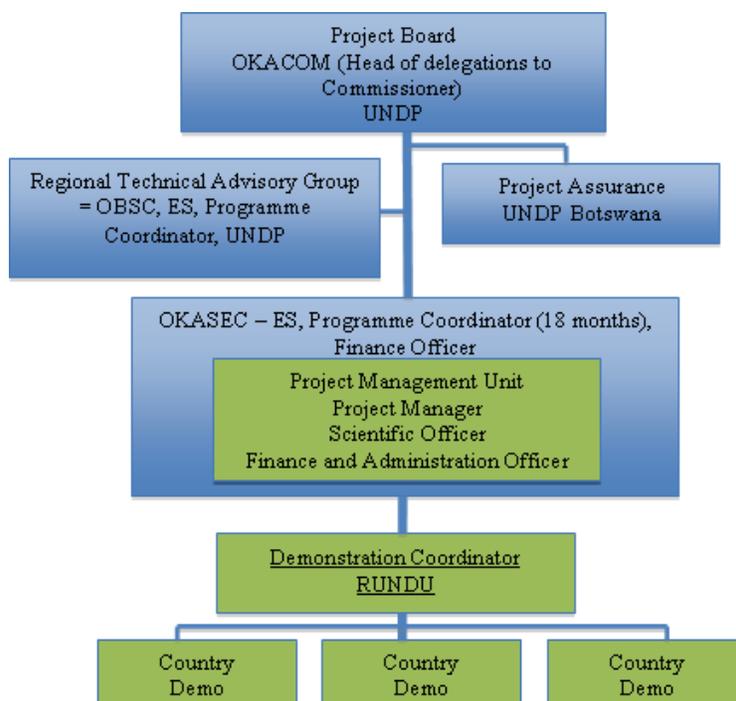
**The Project Board** (also called Project Steering Committee) is the group responsible for making, by consensus, management decisions for a project when guidance is required by the Project Manager, including recommendation for UNDP/Implementing Partner approval of project annual work plan and budget and their revisions. In order to ensure UNDP's ultimate accountability, Project Board decisions should be made in accordance with standards that shall ensure management for development results, best value for money, fairness, integrity, transparency and effective international competition. In the unlikely event that consensus cannot be reached, having exhausted all reasonable avenues, within the Board, final decision shall rest with the UNDP Programme Manager (UNDP Botswana Resident Representative). In addition, the Project Board plays a critical role in UNDP commissioned project evaluations by quality assuring the evaluation process and products, and using evaluations for performance improvement, accountability and learning. Project reviews by this group are made at designated decision points during the running of the project, or as necessary when raised by the Project Manager. This group is consulted by the Project Manager for decisions when the Project Manager's tolerances (normally in terms of time and budget) have been exceeded (flexibility).

The Project Board meets at least once a year to review and approve the Annual Work Plan, Budget, Financial Reports and Progress Reports as well as to provide strategic guidance to the Project Manager. The Project Board will ensure that the project is fully in line with the priorities of the basin, assist the Project Manager to secure necessary expertise from each participating government to implement the project, promote the realization of confirmed co-financing to the project. Draft TOR for the Project Board is found in Annex 2 and was appraised during the PAC. It will be reviewed again during the Inception Workshop before approved by the Project Board during its first meeting. An extraordinary meeting of the Project Board can be organized as necessary. Any changes in the project at the strategic level (e.g. project duration, logframe, intended outputs of the project) must be reviewed and approved by the Project Board. Changes to a project budget affecting the scope (outputs), completion date, or total estimated project costs do require a formal budget revision that must be signed by the signatories of the original project document. With an official record of Project Board decisions, the UNDP programme manager (UNDP Botswana RR) alone may sign the revision provided the other signatories have no objection. The Project Board approves the appointment and responsibilities of the Project Manager and any delegation of its Project Assurance responsibilities.

Potential members of the Project Board are reviewed and recommended for approval during the PAC meeting. **Representative of other stakeholders can be included in the Board as appropriate.** The objective is to create a mechanism for effective project management. This group contains four roles:

- Project Director (also called Executive): individual representing the project ownership to chair the group. **UNDP Botswana RR** will play the role of Executive for this project.
- Development Partners (also called Supplier): individuals or groups representing the interests of the parties concerned which provide funding and/or technical expertise to the project. **UNDP-GEF Regional Technical Advisor** will play the role of Supplier for this project.
- Beneficiary Representative: individuals or groups of individuals representing the interests of those who will ultimately benefit from the project. The primary function within the Board is to ensure the realization of project results from the perspective of project beneficiaries. **The heads of the country delegation to the OKACOM** or their representatives will fulfil this role for this project.
- Project Assurance: Project Assurance is the responsibility of each Project Board member; however the role can be delegated. The project assurance role supports the Project Board by carrying out objective and independent project oversight and monitoring functions. This role ensures appropriate project management milestones are managed and completed. Project Assurance has to be independent of the Project Manager; therefore, the Project Board cannot delegate any of its assurance responsibilities to the Project Manager. A UNDP Programme Officer, or M&E Officer, typically holds the Project Assurance role on behalf of UNDP. For this project, the project assurance role will be delegated to the **UNDP Botswana Programme Officer** in charge of this project.

An organogram of the management structure is shown below.



The **Project Manager** has the authority to run the project on a day-to-day basis on behalf of the Implementing Partner within the constraints laid down by the Project Board. The Project Manager is responsible for day-to-day management and decision-making for the project. The Project Manager's prime responsibility is to ensure that the project produces the results (outputs) specified in the project document, to the required standard of quality and within the specified constraints of time and cost. The Implementing Partner appoints the Project Manager through a competitive selection process. UNDP will participate in the selection process of the Project Manager.

The Project Manager, in accordance with UNDP formats and guidelines, will prepare the Annual Work Plan reflecting project activities and outcomes. In addition to the Annual Work Plan, a detailed activity work plan per project component will indicate periods of activity and the parties responsible for delivery. The Project Manager will be the registered signatory for the project, will work under the regulations of the Implementing

Party (OKACOM), and will be accountable to the Project Board. The Project Manager will also act as a Secretariat to the Project Board and be responsible for circulating the draft minutes of the Project Board meeting in a timely manner for the Project Board's review and approval. On routine management issues, the Project Manager will report to the OKACOM Programme Coordinator, as the Implementing Partner responsible officer, and to the UNDP. UNDP-GEF Regional Technical Advisor for Water and Ocean Governance will routinely provide strategic and technical guidance to the Project Manager. Draft Terms of Reference of the Project Manager are given in Annex 3.

Project Support role provides project administration, management and technical support to the Project Manager as required by the needs of the individual project or Project Manager. It is necessary to keep Project Support and Project Assurance roles separate in order to maintain the independence of Project Assurance.

The **Project Management Unit (PMU)**, headed by the Project Manager, will be hosted by OKACOM Secretariat in Botswana. The PMU will provide a technical support, coordination and management function for the implementation of the Project and function in accordance with the rules and procedures of UNDP, OKACOM, and GEF. It is, however, recognized that there may be situations where the nature of OKACOM's rules and procedures and those of UNDP may conflict. In situations where conflicting/or mutually exclusive rules and procedures arise, solutions will be worked out on a case-by-case basis, to ensure project implementation continues. PMU staff positions are summarised below (Terms of Reference for each position are provided in Annex 3:

- A Senior Scientific Officer
- Demonstration Coordinator
- Information, Communication and Knowledge Management Expert
- Finance and Administrative Officer

For component 2, a Demonstration Project Implementation Unit (Demo PIU) will be established in Rundu led by the Demonstration Coordinator, assisted by representatives in each country. The Demonstration Coordinator will report to the Project Manager. National demonstration steering committee will be established at the beginning of the project; where existing, the National Implementation Units will assume the role of national demonstration steering committee.

**Regional Technical Advisory Group** will assist in the implementation of national and regional project activities. Building on the existing mechanism, the **Okavango Basin Steering Committee (OBSC)** will act as the RTAG. OBSC has played a pivotal role in the development of this project and the implementation of the UNDP and UNDP-GEF support to the Cubango-Okavango basin in the last twenty years leading to the finalization of the Cuvango-Okavango Basin TDA and SAP. To ensure technical quality, to foster partnership and to promote effective coordination and collaboration with other partner-financed projects supporting the OKACOM and people of the Cuvango-Okavango Basin, RTAG may include various stakeholders, such as representatives from other International Cooperating Partners, Civil Society Organizations active in the basin, private sectors, and/or government representatives from regional and local councils in the basin, as appropriate. To be cost effective, RTAG is expected to be held twice a year, when OBSC holds its ordinary meetings and expected to make recommendations for the Project Board's further consideration and decisions.

The Implementing Partner (OKACOM) will request from the UNDP Principal Project Resident Representative (PPRR) (i.e. UNDP Botswana) all financial funds in accordance with UNDP proceedings. As part of the activities and budget monitoring, UNDP PPRR will present annual financial statements relating to the status of the UNDP-GEF funds as registered in the UNDP ATLAS system. The Implementing Partner will verify these statements. In addition, UNDP PPRR will be in charge of selecting a recognised independent auditor that will conduct an annual audit of the project implementation, according to the procedures set out in relevant documents. The cost of these audits will be charged to the project budget.

OKACOM will be accountable to the UNDP Botswana RR (PPRR) for the achievement of the project objectives and for all reporting, including the submission of work plans, progress reports, audit and financial reports. OKACOM will be responsible for financial control of the UNDP-GEF project implementation using the National Implementation (NIM) modality of UNDP. OKACOM will provide the PCU with full support in order to maintain a close record of all expenditures planned or made under the project in full accordance with relevant UNDP procedures and guidelines, as detailed in the UNDP User Guide.

## 5. Monitoring Framework and Evaluation

The project will be monitored through the following M&E activities. The M&E budget is provided in the table below.

### Project start:

A Project Inception Workshop will be held within the first 2 months after the project manager post is filled with assigned roles in the project organization structure, UNDP country office and where appropriate/feasible regional technical policy and programme advisors as well as other stakeholders. The Inception Workshop is crucial to building ownership for the project results and to plan the first year annual work plan.

The Inception Workshop will address a number of key issues including:

- a) Assist all partners to fully understand and take ownership of the project. Detail the roles, support services and complementary responsibilities of UNDP Country and Regional Offices vis-à-vis the project team. Discuss the roles, functions, and responsibilities within the project's decision-making structures, including reporting and communication lines, and conflict resolution mechanisms. The Terms of Reference for project staff will be discussed again as needed.
- b) Based on the project results framework and the relevant GEF Tracking Tool if appropriate, finalize the first annual work plan. Review and agree on the indicators, targets and their means of verification, and recheck assumptions and risks.
- c) Provide a detailed overview of reporting, monitoring and evaluation (M&E) requirements. The Monitoring and Evaluation work plan and budget should be agreed and scheduled.
- d) Discuss financial reporting procedures and obligations, and arrangements for annual audit.
- e) Plan and schedule Project Board meetings. Roles and responsibilities of all project organisation structures should be clarified and meetings planned. The first Project Board meeting should be held within the first 12 months following the inception workshop.

An Inception Workshop report is a key reference document and must be prepared and shared with participants to formalize various agreements and plans decided during the meeting.

### Quarterly:

- Progress made shall be monitored in the UNDP Enhanced Results Based Management Platform.
- Based on the initial risk analysis submitted, the risk log shall be regularly updated in ATLAS. Risks become critical when the impact and probability are high. Note that for UNDP GEF projects, all financial risks associated with financial instruments such as revolving funds, microfinance schemes, or capitalization of ESCOs are automatically classified as critical on the basis of their innovative nature (high impact and uncertainty due to no previous experience justifies classification as critical).
- Based on the information recorded in Atlas, Project Progress Reports (PPR) can be generated in the Executive Snapshot.
- Other ATLAS logs can be used to monitor issues, lessons learned etc. The use of these functions is a key indicator in the UNDP Executive Balanced Scorecard.

### Annually:

- Annual Project Review/Project Implementation Reports (APR/PIR): This key report is prepared to monitor progress made since project start and in particular for the previous reporting period (30 June to 1 July). The APR/PIR combines both UNDP and GEF reporting requirements.

The APR/PIR includes, but is not limited to, reporting on the following:

- Progress made toward project objective and project outcomes - each with indicators, baseline data and end-of-project targets (cumulative)
- Project outputs delivered per project outcome (annual).
- Lesson learned/good practice.
- AWP and other expenditure reports
- Risk and adaptive management
- ATLAS QPR
- Portfolio level indicators (i.e. GEF focal area tracking tools) are used by most focal areas on an annual basis as well.

**Periodic Monitoring through site visits:**

UNDP CO and the UNDP RCU will conduct visits to project sites based on the agreed schedule in the project's Inception Report/Annual Work Plan to assess first hand project progress. Other members of the Project Board may also join these visits. A Field Visit Report/BTOR will be prepared by the CO and UNDP RCU and will be circulated no less than one month after the visit to the project team and Project Board members.

**Mid-term of project cycle:**

The project will undergo an independent Mid-Term Evaluation at the mid-point of project implementation (insert date). The Mid-Term Evaluation will determine progress being made toward the achievement of outcomes and will identify course correction if needed. It will focus on the effectiveness, efficiency and timeliness of project implementation; will highlight issues requiring decisions and actions; and will present initial lessons learned about project design, implementation and management. Findings of this review will be incorporated as recommendations for enhanced implementation during the final half of the project's term. The organization, terms of reference and timing of the mid-term evaluation will be decided after consultation between the parties to the project document. The Terms of Reference for this Mid-term evaluation will be prepared by the UNDP CO based on guidance from the Regional Coordinating Unit and UNDP-GEF. The management response and the evaluation will be uploaded to UNDP corporate systems, in particular the [UNDP Evaluation Office Evaluation Resource Center \(ERC\)](#).

The relevant GEF Focal Area Tracking Tools will also be completed during the mid-term evaluation cycle.

**End of Project:**

An independent Final Evaluation will take place three months prior to the final Project Board meeting and will be undertaken in accordance with UNDP and GEF guidance. The final evaluation will focus on the delivery of the project's results as initially planned (and as corrected after the mid-term evaluation, if any such correction took place). The final evaluation will look at impact and sustainability of results, including the contribution to capacity development and the achievement of global environmental benefits/goals. The Terms of Reference for this evaluation will be prepared by the UNDP CO based on guidance from the Regional Coordinating Unit and UNDP-GEF and the draft will be reviewed by OKACOM prior to advertisement.

The Terminal Evaluation should also provide recommendations for follow-up activities and requires a management response, which should be uploaded to PIMS and to the [UNDP Evaluation Office Evaluation Resource Center \(ERC\)](#).

The relevant GEF Focal Area Tracking Tools will also be completed during the final evaluation.

During the last three months, the project team will prepare the Project Terminal Report. This comprehensive report will summarize the results achieved (objectives, outcomes, outputs), lessons learned, problems met and areas where results may not have been achieved. It will also lay out recommendations for any further steps that may need to be taken to ensure sustainability and replicability of the project's results.

**Audit:**

Audit will be conducted according to UNDP Financial Regulations and Rules and applicable Audit policies.

**Learning and knowledge sharing:**

Results from the project will be disseminated within and beyond the project stakeholders through existing information sharing networks and fora, such as GEF IW: LEARN, African Network of Basin Organization, SADC Water Sector, Global Water Partnership, Stockholm World Water Week, World Water Forum, etc..

The project will identify and participate, as relevant and appropriate, in scientific, policy-based and/or any other networks, which may be of benefit to project implementation though lessons learned. The project will identify, analyze, and share lessons learned that might be beneficial in the design and implementation of similar future projects.

Finally, there will be a two-way flow of information between this project and other projects of a similar focus.

**Communications and visibility requirements:**

Full compliance is required with UNDP's Branding Guidelines. These can be accessed at <http://intra.undp.org/coa/branding.shtml>, and specific guidelines on UNDP logo use can be accessed at: <http://intra.undp.org/branding/useOfLogo.html>. Amongst other things, these guidelines describe when and how the UNDP logo needs to be used, as well as how the logos of donors to UNDP projects needs to be used. For the avoidance of any doubt, when logo use is required, the UNDP logo needs to be used alongside the GEF logo. The GEF logo can be accessed at: [http://www.thegef.org/gef/GEF\\_logo](http://www.thegef.org/gef/GEF_logo). The UNDP logo can be accessed at <http://intra.undp.org/coa/branding.shtml>.

Full compliance is also required with the GEF's Communication and Visibility Guidelines (the "GEF Guidelines"). The GEF Guidelines can be accessed at: [http://www.thegef.org/gef/sites/thegef.org/files/documents/C.40.08\\_Branding\\_the\\_GEF%20final\\_0.pdf](http://www.thegef.org/gef/sites/thegef.org/files/documents/C.40.08_Branding_the_GEF%20final_0.pdf). Amongst other things, the GEF Guidelines describe when and how the GEF logo needs to be used in project publications, vehicles, supplies and other project equipment. The GEF Guidelines also describe other GEF promotional requirements regarding press releases, press conferences, press visits, visits by Government officials, productions and other promotional items.

Where other agencies and project partners have provided support through co-financing, their branding policies and requirements should be similarly applied.

## M & E work plan and budget

Type of M&E activity	Responsible Parties	Budget US\$ <i>Excluding project team staff time</i>	Time frame
Inception Workshop and Report	<ul style="list-style-type: none"> <li>▪ Project Manager</li> <li>▪ UNDP CO, UNDP GEF</li> </ul>	Indicative cost: \$30,000	Within first two months of project start up
Measurement of Means of Verification of project results.	<ul style="list-style-type: none"> <li>▪ UNDP GEF RTA/Project Manager will oversee the hiring of specific studies and institutions, and delegate responsibilities to relevant team members.</li> </ul>	To be finalized in Inception Phase and Workshop.	Start, mid and end of project (during evaluation cycle) and annually when required.
Measurement of Means of Verification for Project Progress on <i>output and implementation</i>	<ul style="list-style-type: none"> <li>▪ Oversight by Project Manager</li> <li>▪ Project team</li> </ul>	To be determined as part of the Annual Work Plan's preparation.	Annually prior to ARR/PIR and to the definition of annual work plans
ARR/PIR	<ul style="list-style-type: none"> <li>▪ Project manager and team</li> <li>▪ UNDP CO</li> <li>▪ UNDP RTA</li> <li>▪ UNDP EEG</li> </ul>	None	Annually
Periodic status/ progress reports	<ul style="list-style-type: none"> <li>▪ Project manager and team</li> </ul>	None	Quarterly
Mid-term Review	<ul style="list-style-type: none"> <li>▪ Project manager and team</li> <li>▪ UNDP CO</li> <li>▪ UNDP RCU</li> <li>▪ External Consultants (i.e. evaluation team)</li> </ul>	Indicative cost: \$50,000	At the mid-point of project implementation.
Final Evaluation	<ul style="list-style-type: none"> <li>▪ Project manager and team,</li> <li>▪ UNDP CO</li> <li>▪ UNDP RCU</li> <li>▪ External Consultants (i.e. evaluation team)</li> </ul>	Indicative cost: \$50,000	At least three months before the end of project implementation
Project Terminal Report	<ul style="list-style-type: none"> <li>▪ Project manager and team</li> <li>▪ UNDP CO</li> <li>▪ local consultant</li> </ul>	None	At least three months before the end of the project
Audit	<ul style="list-style-type: none"> <li>▪ UNDP CO</li> <li>▪ Project manager and team</li> </ul>	Indicative cost per year: \$6,000	Yearly
Visits to field sites	<ul style="list-style-type: none"> <li>▪ UNDP CO</li> <li>▪ UNDP RCU (as appropriate)</li> <li>▪ Government representatives</li> </ul>	Indicative cost: \$40,000 For GEF supported projects, paid from IA fees and operational budget	Yearly
<b>TOTAL indicative COST</b> Excluding project team staff time and UNDP staff and travel expenses		US\$ 200,000 (+/- 5% of total budget)	

## 6. Legal Context

This document together with the CPAP signed by the Government and UNDP, which is incorporated by reference, constitute together a Project Document as referred to in the Standard Basic Assistance Agreement (SBAA) and all CPAP provisions apply to this document.

Consistent with the Article III of the Standard Basic Assistance Agreement, the responsibility for the safety and security of the implementing partner and its personnel and property, and of UNDP's property in the implementing partner's custody, rests with the implementing partner.

The implementing partner shall:

- a) put in place an appropriate security plan and maintain the security plan, taking into account the security situation in the country where the project is being carried out;
- b) assume all risks and liabilities related to the implementing partner's security, and the full implementation of the security plan.

UNDP reserves the right to verify whether such a plan is in place, and to suggest modifications to the plan when necessary. Failure to maintain and implement an appropriate security plan as required hereunder shall be deemed a breach of this agreement.

The implementing partner agrees to undertake all reasonable efforts to ensure that none of the UNDP funds received pursuant to the Project Document are used to provide support to individuals or entities associated with terrorism and that the recipients of any amounts provided by UNDP hereunder do not appear on the list maintained by the Security Council Committee established pursuant to resolution 1267 (1999). The list can be accessed via <http://www.un.org/Docs/sc/committees/1267/1267ListEng.htm>. This provision must be included in all sub-contracts or sub-agreements entered into under this Project Document.

This project forms part of an overall programmatic framework under which several separate associated country level activities will be implemented. When assistance and support services are provided from this Project to the associated country level activities, this document shall be the "Project Document" instrument referred to in: (i) the respective signed SBAA's for the specific countries; or (ii) in the Supplemental Provisions attached to the Project Document in cases where the recipient country has not signed an SBAA with UNDP, attached hereto and forming an integral part hereof.

This project will be implemented by the Permanent Okavango River Basin Water Commission, or OKACOM, ("Implementing Partner") in accordance with its financial regulations, rules, practices and procedures only to the extent that they do not contravene the principles of the Financial Regulations and Rules of UNDP. Where the financial governance of an Implementing Partner does not provide the required guidance to ensure best value for money, fairness, integrity, transparency, and effective international competition, the financial governance of UNDP shall apply.

The responsibility for the safety and security of the Implementing Partner and its personnel and property, and of UNDP's property in the Implementing Partner's custody, rests with the Implementing Partner. The Implementing Partner shall: (a) put in place an appropriate security plan and maintain the security plan, taking into account the security situation in the country where the project is being carried; (b) assume all risks and liabilities related to the Implementing Partner's security, and the full implementation of the security plan. UNDP reserves the right to verify whether such a plan is in place, and to suggest modifications to the plan when necessary. Failure to maintain and implement an appropriate security plan as required hereunder shall be deemed a breach of this agreement.

The Implementing Partner agrees to undertake all reasonable efforts to ensure that none of the UNDP funds received pursuant to the Project Document are used to provide support to individuals or entities associated with terrorism and that the recipients of any amounts provided by UNDP hereunder do not appear on the list maintained by the Security Council Committee established pursuant to resolution 1267 (1999). The list can be accessed via <http://www.un.org/Docs/sc/committees/1267/1267ListEng.htm>. This provision must be included in all sub-contracts or sub-agreements entered into under this Project Document.

## ANNEXES

### Annex 1: Demonstration Project Documents

#### Demonstration Project 1: Basin tourism development and partnerships

**1. Country(s): Botswana and Namibia**

**2. Title: Botswana:** Enhanced livelihoods and economic development through alternative land use zonation, enabling tourism investments

**Namibia:** Conservation tourism through strengthened partnerships

**3. Executing Agency:** TBD

**4. Cost of Projects:** GEF: US\$ 3700,000 per demo Co-Finance: (TBD)

**5. Linkage to Cubango-Okavango River Basin SAP Priorities:**

Central to the CORB SAP is improvement of the livelihood of the basin's people through the cooperative management of the basin and its shared natural resources. As such the objective of Thematic Area 1 of the SAP 'Livelihoods and Socio-economic Development' is 'Sustaining key livelihood activities such as agriculture, livestock and fisheries and ensuring productivity improvements while reducing/mitigating environmental impacts of activities'. The SAP calls on a series of demonstration projects to trial different low-impact development strategies in each of the basin countries. Under Thematic Area 1, the SAP also calls for the development of a basin-wide tourism strategy and for tourism to be increased, calling on the establishment of joint demonstration projects in the basin. The demo projects proposed are fully aligned with the SAP and have been comprehensively discussed with the countries to ensure that they correspond with the objectives of the National Action Plans.

Two separate demo projects have been developed under this theme, one in Botswana and one in Namibia. They are site specific and have been developed independently looking at different aspects and issues and therefore full descriptions are presented below separately.

**Botswana: Enhanced livelihoods and economic development through alternative land use zonation, enabling tourism investments**

**6. Linkage to National Priorities and Programmes**

- Livestock rearing on tribal grazing land is increasingly threatening environmental services and natural resources. Since independence in 1966, traditional livestock management practices have been eroded, resulting in uncontrolled, open access to large areas of land, and consequent range degradation.
- Community Based Natural Resources Management (CBNRM) and wildlife-based tourism have, over the past twenty years, been promoted as paths to sustainable development. The Okavango Delta, a designated Wetland of International Importance (Ramsar site), is the core of Botswana's tourism industry. It is often presented as a positive example of a sound land use choice that generates high levels of income, while still promoting environmental sustainability. According to the Botswana Tourism Organisation (BTO), this sector is the country's second key national asset after mining and has the potential to become one of the primary drivers of the economy. Currently, tourism accounts for 11% of the GDP (ODRS SEMP 2012). However, tourism in the Okavango still brings only limited benefits to the people who live around it (Mbaiwa 2008). In particular, Maun – the largest settlement and district capital – functions only as a stepping stone to the tourism experience, with very few bed-nights actually spent in Maun or the nearby surrounding areas.
- CBNRM has had only limited success, largely because for the most part it has only been promoted in the handful of communities that are resident within the Wildlife Management Areas WMAs, where land-use designations are already compatible with conservation. This limited success has led to an increasing recognition of the need to roll out CBNRM to communities living on the periphery of conservation areas, so that they too can benefit from, and hence give support to, long-term environmental protection.

- The 1990 Tourism Policy, as modulated by the 2000 Botswana Tourism Master Plan, has as its foundational objective the sustainable development of tourism which maximises both economic and social benefits to Botswana. This includes mixed use in less pristine areas, such as the land immediately surrounding the Okavango Delta. Related to this is the National Eco-tourism Strategy of 2002, which focuses on five key principles:
  - Minimizing negative social, cultural and environmental impacts.
  - Maximizing the involvement in, and the equitable distribution of economic benefits to host communities.
  - Maximizing revenues for re-investment in conservation.
  - Educating both visitors and local people as to the importance of conserving natural and cultural resources.
  - Delivering a quality experience for tourists.
- The CBNRM Policy of 2006 sets the foundation for conservation-based development, balancing the need to protect biodiversity with that of improving rural livelihoods. The policy sets the framework for providing new avenues for communities to diversify their economic opportunities.
- Botswana's obligations under the Ramsar Convention are to actively manage the wetland for conservation purposes generally, and especially as waterfowl habitat. In 2012 a Strategic Environmental Management Plan (SEMP) for the Okavango Delta Ramsar Site (ODRS) was developed, with the understanding that this SEM would become the over-arching legal framework for management decisions. Currently, the proposed project area falls just outside the primary conservation zone of the ODRS, but the potential for realigning the fence (see 8.1.1 below) would allow this area to be included. Key findings for management include a call for integrated land use planning and an urgent call for significant improvement in land and settlement management is required, included at the local level.

## **7. Name and Post of Government Representatives endorsing the Demonstration Activity (to be confirmed during the project inception phase)**

*Ministry of Environment, Wildlife and Tourism*

- **Botswana Tourism Organisation**
- *Department of Tourism*
- *Department of Wildlife and National Parks*

*Ministry of Lands*

- *Tawana Land Board*

## **8. Project Objectives and Activities**

### **8.1 Background**

- 8.1.1. Tourism activities take place primarily in the Wildlife Management Areas (WMAs) in the core of the Delta. To the south and west of the Delta, these WMAs are separated from the surrounding landscape by veterinary disease control fences (known locally as the 'buffalo fence') to prevent the spread of foot-and-mouth from buffalo to cattle. Cattle and other livestock are traditionally one of the main sources of rural livelihoods, and still receive extensive subsidies from Government. Land tenure is communal, and in the tribal grazing areas outside of the WMAs (and fence), local leaders have little or no authority over access to, and use of, common property resources. Over-grazing creates a cycle of poverty and range degradation.
- 8.1.2. The Okavango Delta Management Plan (ODMP, 2008) proposed the re-alignment of the buffalo fence further southward, to expand the area under wildlife-based land uses. This would allow for the diversification of the tourism market in the Maun area, and increase opportunities for local residents to participate in tourism, so decreasing their dependence on livestock. The North West District Council (NWDC) saw the potential of this proposal and included the proposed park in the Maun Development Plan (2010) and zoned an area north-west of Maun as the Maun Eco Tourism Park (METP).
- 8.1.3. A management plan for METP was prepared in 2013, offering five different development scenarios. The selected scenario is as follows:
  - An initial period of 5 years, where the buffalo fence remains where it is, and a second game fence is erected to follow a proposed realignment, thus creating an enclosed zone. This option is focused on a combination of livestock and wildlife and a maximum of vegetation conservation.

- After five years, local residents and their livestock will be relocated to land made available for this purpose, at which time the buffalo fence can be taken down, so that the second game fence then becomes the disease control fence.
- 8.1.4. The following tourism related facilities are proposed to be developed within the METP boundaries under the established carrying capacities:
- 1 Hotel with conference Facility (60 beds) close to the boundary fence along the Thamalakane River on either side of the Main Gate,
  - 1 Restaurant, seating 80 guests,
  - 3 Lodges with 20 beds each, 4 star along the north western boundary of the METP,
  - 1 Airstrip for the Lodges,
  - 5 Cultural Guesthouses offering cultural activities in the centre of the METP,
  - 3 Camping Grounds close to the gates accommodating 30 people each,
  - 3 Gates with ablution facilities,
  - An educational centre and wildlife orphanage,
  - An intensive breeding facility for rare and endangered ungulates such as rhinoceros, sable and roan,
  - Offices and workshop for METP management and maintenance.
- 8.1.5. The proposed location of one of the 3 lodges is in the Gomoti region, a more remote area, with low human and livestock densities. Focusing on this lodge would be an opportunity to demonstrate the potential contribution of tourism to surrounding communities, without impacting too much on existing livelihood activities.

## 8.2. Objectives and Activities

### Demo Objectives

- 8.2.1. To initiate the development of Maun Ecotourism Park based on the involvement of local communities in order to enhance their livelihoods while demonstrating the value of sound environmental management.
- 8.2.2. The project aims to lower their investment risks perceived by private investors in entering joint ventures that will provide direct benefit basin communities through capacity building activities targeting communities and supporting local authorities to make useful policy interventions to strengthen enabling policy environment that promotes such joint ventures.
- 8.2.3. To this end, the project will work with community, relevant local and national authorities, and private investors to demonstrate the following activities:
- develop sound governance structures and governance monitoring system
  - conduct a land use zone map of the Gomoti region, identifying sites of interest and potential development
  - identify a suitable site and apply for a tribal land lease for the establishment of a lodge
  - identify a series of tourist activities that can be linked to the lodge yet conducted by community members (e.g. bird walks, mokoro trails)
  - identify a suitable joint venture partner to run the lodge
  - set up a Management Oriented Monitoring System (MOMS) and engage local community members as guides and monitors to record environmental information.

### Output 1: Inception report and Site selection

#### Activity 1.1: Conduct literature review-

The literature review will cover a wide array of strategies to determine best practices of local communities in implementation of joint ventures, CBNRM, community-based tourism, and environmental management. Also the review will cover strategies of projects implemented in targeted cultures that address environmental management of common lands.

#### Activity 1.2: Community consultations and mobilisation

Since the broader Maun Ecotourism Park has been earmarked for CBNRM, a necessary prerequisite will be the development of a representative organization with broad buy-in from local residents. In addition, support for sustainable and managed access to and use of resources will need to be developed. A series of community and stakeholder meetings, as well as several workshops will be held in order to facilitate the achievement of these objectives.

#### **Activity 1.3: Overall project plan based on recommendations from stakeholders**

The project team, including select members of the Basin Wide Stakeholder Forum and National Stakeholder forum, will develop an overall project plan based on findings of the literature review. The plan will be refined with inputs from local specialists familiar with project implementation within communities, wetland ecologists, traditional leaders, farmers/ pastoralists, and local authorities, tourism specialists, and community organizations.

#### **Activity 1.4: Develop site selection criteria for demonstration sites**

Sites will be nominated and selected based on the weighted criteria developed by the project team based on the literature and with inputs from stakeholders. The criteria will likely consider the following:

- likelihood of success and input of community for sustainability
- potential for replication
- current resources availability to the community
- trends, challenges and conflicts existent in the area
- potential for training local population to train others in neighbouring communities
- inter-community tensions over resources, range land use and other issues
- ethnic make-up as relevant
- community leaders able and willing to accept responsibility for project implementation

#### **Activity 1.5: Site selection**

Based on the criteria and available communities the project will make the selection of sites with inputs of project staff, experts, NFPs, and stakeholders. This will also take into account other community based natural resource management practices currently underway in the basin, and will work to compliment these efforts as appropriate. The selection process will involve formalization of an appropriate community-based organisation, through coordination with other development projects, project staff familiar with communities within the basin, technical advisory staff related to CBNRM, and through the literature review. The candidate sites will be visited by the project staff and evaluated based on the criteria developed by the project team. Once conducted meetings will be held to determine the optimal communities to be selected for participation within the project.

### **Output 2: Assessment of baseline and identification of land/resource management issues**

#### **Activity 2.1: Conduct baseline studies**

With community leaders and identified stakeholder participants within the community, the next step is to identify land management issues, major challenges, and potential solutions. Relying on assistance from community leaders and identified stakeholder participants within the community it will be important to conduct local studies that establish baseline conditions to include photographs, interviews with elderly who can clarify how changes have occurred, and with wetland ecologists, and to include impacts of climate variation, including tracing of recent meteorological trends over the past decades and closely monitoring conditions during project implementation.

#### **Activity 2.2: Conduct a community specific socio-economic evaluation**

Concurrently with the assessment of the baseline conduct community specific socio-economic evaluations. It will be critical to characterize the selected communities for variables, which will be needed for future comparison and replication. These variables should include:

- The local knowledge of the environment and skills held within the traditional culture regarding natural resources management, and as information to be used in tourism activities
- The role of environment and environmental stewardship within communities via surveys with individuals
- The economic scenarios of the five proposed land use options put forward in the Maun Ecotourism Park Management Plan, and impacts of alternate scenarios using other approaches to include climate variation
- The shifts in gender roles, if any, as a result of demographic changes in the region

Following the socio-economic evaluations, the project will draft community specific socio-economic reports to be presented in conjunction with community meetings emphasizing the range of strategies available based on the scenarios developed..

**Activity 2.3: Hold meeting with community to identify the root causes and options**

In order to decide how to best address and improve the conditions the community will be asked to gather for a meeting of presentations to include the strategies garnered from the literature review, the overall plan, the summary findings of the baseline studies, and the results of the community specific socio-economic evaluation. With as many community stakeholders as possible, the meeting will select appropriate approaches to use within the specific community, based on the root causes and options available. Community feedback throughout the meeting will be critical to ensure support for the project and consensus building regarding natural resources management and tourism development strategies to be employed in the area.

**Output 3: Formation of the community-based organization (CBO) and appropriate management structures**

**Activity 3.1: Establish appropriate management structures**

Based on literature, stakeholder inputs, and community consultations, and a thorough assessment of the land tenure issues, appropriate management structures (in the form of a CBO) will be identified. If land tenure is simple, the existing model of a community trust, in which local authorities are key players, can be used to secure land and resource use rights to the area. Alternatively, the community trust would need to form a joint management committee with relevant local authorities.

**Activity 3.2: Train CBO**

Once established, the CBO will receive training on aspects of the project that will enable them to implement and enforce the agreements made by the community, such as where the lodge site will be, what activities to do, how to adapt to constantly variable flooding levels, how to conduct environmental monitoring, and what the boundaries of the governed area include. Additionally, they will receive more advanced training on principles of natural resources management, including issues of soil degradation, desertification, and flora and fauna identification, rudimentary climatology, and basic ecology. Monitoring and evaluation strategies will also be introduced to the CBO. In later parts of the project members of the CBO will receive “training of trainers” and curriculum implementation training to be shared with neighbouring communities.

**Output 4: Develop management plan based on best practices, including M&E framework.**

**Activity 4.1: Develop community specific management plans and alternate income sources**

Based on the inputs from the community meetings, and with the CBO trainings, the CBO and the project experts will develop a management plan based on best practices and governance principles outlined in the project objectives to be applied locally. The plan will need to conform to local traditional justice systems, as well as national laws and regulations and will need formal support of the agencies responsible for oversight of range land management. The management plans will be presented to the whole community for comment and revision in order to ensure acceptance and buy-in to the project.

The management plan will set objectives and targets to develop ecologically sound tourism products, as well as explore options for managing other uses in the area. Though land tenure patterns will be difficult to adjust, they will be addressed and where agreed, altered to enhance the preservation of sensitive areas. The alternate income activities, which will need to stem from local understanding of the needs and capacities, will be supported. This may include, *inter alia*, introduction of small businesses such as community shops, cultivation of endemic foods and medicinal plants for sale in towns and abroad, crafts, and other enterprises.

**Activity 4.2: Design a M & E framework**

The CBOs and project experts will develop an agreed Monitoring and Evaluation strategy to periodically review the progress of the project, and to make certain that the project is being implemented as agreed by the community. M&E will have three key components: project reporting using a LogFrame or similar approach; governance, using the Dashboard approach; and sustainability, using the MOMS approach and tracking both environmental and tourism development indicators. The M&E framework will be presented

to the community, emphasizing community member involvement, to garner further support for the project, with clear delineation of the boundaries, protocols for modifying the agreed rules, role of graduated sanctions, conflict resolution mechanisms, and roles and responsibility of monitors.

#### **Output 5: Implement tourism ventures**

##### **Activity 5.1: Prepare tourism development plan and community-based tourism activities**

The CBO and project experts will prepare a tourism development plan that accommodates the variable water levels in the area, and which will serve to support the growing Maun-based tourism initiatives. Carrying capacities, and adaptive approaches must be established. Opportunities for independent entrepreneurs to develop small businesses must be identified.

##### **Activity 5.2: Compare to baseline and adjust on regular basis**

The CBO manager will be required to institute a systematic reporting system that is built into and around the MOMS system. This information will record and document the process of community mobilization, land use zoning and management, and tourism development. Wherever possible, data will be used so that change in these parameters can be measured.

#### **Output 6: Monitor and disseminate results**

##### **Activity 6.1: Verify monitoring with specialists**

The community MOMS activities should be supplemented with annual assessments by specialists and verified by site visits as needed, and adjustments supported in order to refine the strategies to fit the needs of the communities and the ecological conditions.

##### **Activity 6.2: Draft report on lessons learned**

For each community and for the full demonstration project reports will be drafted that include detailed lessons learned, garnered from an end-of- project review, CBO manager reports, and MOMS data. The demonstration project report will highlight implementation effectiveness, benefits and challenges of the project implementation – addressing both social and environmental aspects.

#### **Output 7: Adaptive Management and Learning**

Based on the requirements of GEF demonstration projects the following principles will be included in the project implementation.

- Project implemented in a cost-effective manner in accordance with agreed work plans and budgets
- Monitoring and Evaluation Plan provides inputs for robust adaptive management
- A clearly defined mechanism for replication of the community-based tourism development in other comparable areas.

### **9. End-of Project Landscape (Outputs) outcomes**

At the conclusion of the demonstration project the following will be available:

- An assessment of best practices in CBNRM and tourism development under mixed land use and on communal lands outside of WMAs – an important area of expansion if environmental degradation in rural areas is to be halted. This information will be used together with other examples such as the Lake Ngami community projects and Tubu village natural resources management projects, to provide case studies and lessons learned for similar areas both in Botswana and in the greater Southern African region. It will form an important contribution to both Cubango-Okavango Basin sustainable development initiatives, and the GEF portfolio of projects. The assessment will include a set of criteria for site selection, appropriate governance structures, mechanisms for governance and environmental monitoring, as well as recommendations for tourism operation in highly variable ecological conditions.
- The project will produce a baseline assessment of local conditions, including biophysical and socio-economic factors, which will influence project implementation, and a baseline review of conditions. Because the project takes place in an environment of fluctuating environmental conditions, this

baseline has the opportunity to provide important lessons in planning for adaptive land management. The structure of the baseline assessment would serve as framework for future projects assessments, and for future reviews of local conditions – allowing both cross-site and longitudinal comparisons.

- The design and implementation of the project at the local level, involving local communities in all stages of project development will provide a useful case study of community involvement and community-based ecotourism projects, while encouraging a steady shift to alternative and more sustainable forms of land use. The reliance on local understanding and knowledge, supplemented by experts as needed further increases the sense of project ownership, while also increasing overall knowledge base. In addition, by providing employment opportunities at the local level, the younger generation will benefit from economic 'pulls' of activities in the tourism sector, a critical poverty reduction strategy that counteracts the 'pushes' of oversubscription in the livestock sector. In rural areas, poverty is closely linked to natural resource exploitation.
- The proposed monitoring and evaluation frameworks – Dashboard, and MOMS, have been tested elsewhere in the region and show promise. In addition to providing the standard fact-based evaluation and adaptation mechanisms necessary for long-term project sustainability, these frameworks both also enhance local ownership by placing accountability in the hands of the community, and empowering them to use their own data to make their own decisions. Adding additional examples of these monitoring systems the region will allow their refinement and roll-out to other similar projects.

**The expected environmental and socio-economic benefits for the communities will be:**

- Diversified and therefore more resilient livelihoods and local economy
- Increased empowerment of local communities to address the challenges of natural resources management based on indigenous knowledge and documentation of this knowledge for future generations
- Increased quality of ecosystem services through sound land management practices.

**10. Project Management Structure and Accountability**

The project will be contracted under international tender procedures. There will be an open invitation for expressions of interest and a short-list of tenderers will be assembled in consultation with OKACOM. The GEF Project Coordination Unit based in the OKACOM secretariat will oversee the project execution. A demonstration Project Implementation Unit (PIU) will be established with satellite offices in each country. The PIU will report to the GEF project manager and the national project coordinators who in turn will report to the National Focal Points. The demonstration project through the PCU shall report regularly to the Project Board. The establishment of national demo steering committee is also being considered as in the other two countries.

**11. Stakeholders and Beneficiaries:**

The stakeholders involved in this project, and the beneficiaries include local rural communities within the region, Tawana Land Board, Botswana Tourism Organisation, district officials, local authorities, wetland ecologists, traditional leaders, farmers/ pastoralists, community organizations, local tour operators and tourists, as well as other researchers (such as from the nearby Okavango Research Institute) conservationists, educators, and public health care providers.

**12. Long-term Sustainability Strategy**

The broader Maun Ecotourism Park plan is intended as a much larger community-based development initiative. That together, with the national and district level sanction of the park through their incorporation of the land-use designation in their development plans, suggest a strong support base over the long term. In addition, the proximity of the project area to the Okavango Research Institute means that technical experts should continuously be available for advice and technical support. By ensuring that the project is owned by a community-based organization, local level support over the long term is also secured. Critically, it is important that the main tourism facility, the lodge, is run by a well-established eco-tourism tour operator who understands market forces and is able to match services supplied to demand levels in the sector.

**13. Replicability**

As noted above, there are two other areas (Tubu and Lake Ngami) in the Botswana part of the Cubango-Okavango Basin that have similar land tenure and land use challenges, and which also have

potential for tourism development. By ensuring that institutional arrangements, particularly with regard to land rights are in place, it will be possible to initiate similar ecotourism developments and activities. In addition the MOMS and Dashboard systems are designed to be used by rural communities. An important component of the replicability is the joint venture partnership for the major tourism activity, as rural communities are institutionally inappropriate as enterprise organizations (i.e., actual running the business) not typically equipped with sufficient business skills. For this reason, having a diverse range of supplementary small economic activities that can be taken up by private individuals or groups from within the community is also important. Finally, in establishing the training of trainers during the CBO development phase, community members will then be equipped to share their knowledge in other areas.

#### 14. Monitoring and Evaluation Process

There will be three components to the M&E process. The first, relating most clearly to the project will be the systematic reporting system implemented by the CBO manager. This will comprise a series of quarterly reports, submitted to the Technical Advisory Committee managing CBNRM in the district. Such reports should have a structured format such as the LogFrame approach, that tracks activities and indicators related to different aspects the development plan. The second is annual reporting based on analysis of the MOMS data, as collected by the community. Such data would include not only ecological and environmental parameters, but could also track participation in different activities, crafts, and other economic indicators. Finally, the third will be governance monitoring based on the Dashboard approach. After a baseline analysis, governance monitoring can be conducted every 2 years.

Based on the monitoring and evaluation activities described above, the demonstration project will also be subjected to an annual internal review to assess the extent to which the project remains on track. In addition, there will be a mid-term and end-of-project external review that will document not only adherence to implementation plan, but also lessons learned and implications for adaptive management approaches.

The project evaluations will be carried out in accordance with UNDP-GEF requirements and will cover all aspects of the project. They will include: an assessment of (a) the outcomes generated, (b) the processes used to generate them, (c) project impacts, and d) lessons learned. Advice will be given on how the M&E results can be used to adjust the work if needed and on how to replicate the results in the region.

#### 15. Funding

The total contribution requested from GEF is USD 370,000 within a 4-year period (see budget for details).

<b>TOTAL PROJECT WORKPLAN AND BUDGET</b>						
<b>Project Title:</b> Enhanced livelihoods and economic development through alternative land use zonation, enabling tourism investments						
<b>GEF Outcome/Atlas Activity**</b>	<b>Sub-components</b>	<b>Amount (\$) Year 1</b>	<b>Amount (\$) Year 2</b>	<b>Amount (\$) Year 3</b>	<b>Amount (\$) Year 4</b>	<b>Total (\$) All Years</b>
1. Inception report and site selection	1.1 Conduct literature review	5,000	0	0	0	5,000
	1.2. Community consultations and mobilisation	15,000	0	0	0	15,000
	1.3. Overall project plan based on recommendations from stakeholders	10,000	0	0	0	10,000
	1.4. Develop site selection criteria for demonstration sites	2,500	0	0	0	2,500
	1.5. Make selection of sites	2,500	0	0	0	2,500
		<b>Sub-total</b>	<b>35,000</b>	<b>0</b>	<b>0</b>	<b>0</b>

2. Assessment of baseline and identification of land/resource management issues	2.1. Conduct baseline studies	15,000	0	0	0	15,000
	2.2. Conduct a community specific socio-economic evaluation	15,000	0	0	0	15,000
	2.3. Hold meeting with community to identify the root causes and options	5,000	0	0	0	5,000
	<b>Sub-total</b>	<b>35,000</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>35,000</b>
3. Formation of CBO and appropriate management structures	3.1. Establish appropriate management structures	0	15,000	0	0	15,000
	3.2. Train CBO	0	22,000	0	0	22,000
	<b>Sub-total</b>	<b>0</b>	<b>37,000</b>	<b>0</b>	<b>0</b>	<b>37,000</b>
4. Develop management plan based on best practices, including M&E framework	4.1. Develop community specific management plan and alternate income sources	0	5,000	0	0	0
	4.2. Design a M& E framework	0	10,000	0	0	0
	<b>Sub-total</b>	<b>0</b>	<b>15,000</b>	<b>0</b>	<b>0</b>	<b>15,000</b>
5. Implement tourism ventures	5.1. Implementation tourism development plan and community-based tourism activities	0	50,000	80,000	80,000	210,000
	5.2. Compare to baseline and adjust on regular basis	0	2,500	2,500	2,500	7,500
	<b>Sub-total</b>	<b>0</b>	<b>52,500</b>	<b>82,500</b>	<b>82,500</b>	<b>217,500</b>
6. Monitor and disseminate results	6.1. Verify monitoring with specialists	0	2,500	2,500	2,500	7,500
	6.2. Draft report on lessons learned	0	0	0	2,500	2,500
	<b>Sub-total</b>	<b>0</b>	<b>2,500</b>	<b>2,500</b>	<b>5,000</b>	<b>10,000</b>
7. Adaptive Management and Learning	7.1. Project implemented in a cost-effective manner in accordance with agreed work plans and budgets	2,000	2,000	2,000	2,000	8,000
	7.2. Monitoring and Evaluation Plan provides inputs for robust adaptive management	0	2,500	2,500	2,500	7,500
	7.3. A clearly defined mechanism for replication of the community-based tourism development in other comparable areas	0	0	0	5,000	5,000
	<b>Sub-total</b>	<b>0</b>	<b>2,500</b>	<b>2,500</b>	<b>7,500</b>	<b>20,500</b>
	<b>Total</b>	<b>70,000</b>	<b>117,500</b>	<b>87,500</b>	<b>95,000</b>	<b>370,000</b>

### MAUN ANNEX 1

Initiation of Maun Ecotourism Park through Local Community Involvement	Objectively Verifiable Indicators	Sources of Verification	Assumptions and Risks	
<b>OUTCOME</b>	<b>Improved land and natural resources management</b> – <i>Demonstration</i> of CBNRM and tourism development under mixed land use and on communal lands outside of WMAs in the lower Okavango			
<b>ACTIVITIES</b>	<b>1. Inception report and site selection</b> <ul style="list-style-type: none"> <li>▪ Conduct literature review</li> <li>▪ Community consultations and mobilisation</li> <li>▪ Overall project plan based on recommendations from stakeholders</li> <li>▪ Develop site selection criteria for demonstration sites</li> <li>▪ Site selection</li> </ul>	Inception report prepared? (y/n)  No. of stakeholder meetings held  Stakeholder concerns and inputs recorded? (y/n)  Overall project plan prepared? (y/n)  Criteria for site selection prepared? (y/n)  Final site selected? (y/n)	Project Plan and inception report  Transcripts/minutes of community meetings	Limited public support / awareness  Buy-in from appropriate land authority

Initiation of Maun Ecotourism Park through Local Community Involvement	Objectively Verifiable Indicators	Sources of Verification	Assumptions and Risks	
<b>OUTCOME</b>	<b>Improved land and natural resources management – Demonstration of CBNRM and tourism development under mixed land use and on communal lands outside of WMAs in the lower Okavango</b>			
	<p><b>2. Assessment of baseline and identification of land/resource management issues</b></p> <ul style="list-style-type: none"> <li>▪ Conduct baseline studies</li> <li>▪ Conduct a community specific socio-economic evaluation</li> <li>▪ Hold meeting with community to identify the root causes and options</li> </ul>	<p>Socio-economic and biophysical baseline assessments carried out? (y/n)</p> <p>Socio-economic study conducted? (y/n)</p> <p>Community meetings conducted? (y/n)</p> <p>Database of socio-economic and biophysical baseline variables prepared? (y/n)</p>	<p>Baseline reports</p> <p>Socioeconomic evaluation report</p> <p>Transcripts/minutes of community meetings</p> <p>Digital file listing variables for later comparison</p>	<p>Highly variable biophysical conditions – need to consider inter-annual and intra-annual flooding variation</p> <p>Socio-economic study done at appropriate time of year for maximum participation</p>
	<p><b>3. Formation of CBO and appropriate management structures</b></p> <ul style="list-style-type: none"> <li>▪ Establish appropriate management structures</li> <li>▪ Train CBO</li> </ul>	<p>CBO formed, with appropriate and approved constitution? (y/n)</p> <p>Additional management committee considered and formed if necessary? (y/n)</p> <p>CBO Board and management trained in Dashboard, MOMs, meetings, natural resources management? (y/n)</p>	<p>Constitution documents</p> <p>Project plan</p> <p>Meeting minutes</p> <p>Training reports</p>	<p>Buy-in from appropriate land authority</p> <p>Availability of NGO / consultant / research institute to conduct training</p>
	<p><b>4. Develop management plan based on best practice, including M&amp;E framework.</b></p> <ul style="list-style-type: none"> <li>▪ Develop community specific management plan and alternate income sources</li> <li>▪ Design a M &amp; E framework</li> </ul>	<p>Management plan developed? (y/n)</p> <p>M&amp;E framework imbedded in management plan</p>	<p>Management plan document</p> <p>Section on M&amp;E in management plan document</p>	<p>Applicability of best practices, particularly regarding tourism aspects</p>

Initiation of Maun Ecotourism Park through Local Community Involvement	Objectively Verifiable Indicators	Sources of Verification	Assumptions and Risks	
<b>OUTCOME</b>	<b>Improved land and natural resources management – Demonstration of CBNRM and tourism development under mixed land use and on communal lands outside of WMAs in the lower Okavango</b>			
	<b>5. Implement tourism ventures</b> <ul style="list-style-type: none"> <li>▪ Prepare tourism development plan and community-based tourism activities</li> <li>▪ Compare to baseline and adjust on regular basis</li> </ul>	Tourism development plan prepared? (y/n)  Community tourism activities identified? (y/n)  Comparison to baseline conducted annually? (y/n)  MOMS in place? (y/n)  Dashboard in place? (y/n)	Tourism development plan document  Section on community tourism activities in tourism development plan document  Annual progress reports  Up-to-date MOMS and Dashboard records held in CBO office	Selected variables are appropriate for capturing progress
	<b>6. Monitor and disseminate results</b> <ul style="list-style-type: none"> <li>▪ Verify monitoring with specialists</li> <li>▪ Draft report on lessons learned</li> </ul>	Annual specialist assessments conducted? (y/n)  Lessons learned documented? (y/n)	Annual specialist reports  Lessons learned report	Availability of NGO / consultant / research institute to conduct assessments
	<b>7. Adaptive Management and Learning</b> <ul style="list-style-type: none"> <li>▪ Project implemented in a cost-effective manner in accordance with agreed work plans and budgets</li> <li>▪ Monitoring and Evaluation Plan provides inputs for robust adaptive management</li> <li>▪ A clearly defined mechanism for replication of the community-based tourism development in other comparable areas</li> </ul>	Budget adhered to? (y/n)  Work plans followed? (y/n)  Adaptive management approach used? (y/n)  Mechanism for replication described? (y/n)	Project review document  Project review document shows adjustment of goals and activities in response to lessons learned  Project review document describes how to replicate in other areas	Sufficient progress made in limited timeframe to suggest worth replicating

MAUN ANNEX 2

Component and Activities	Year 1				Year 2				Year 3				Year 4			
	Q1	Q2	Q3	Q4												
<b>1. Outcome 1: Inception report and site selection</b>																
Activity 1.1: Conduct literature review																
Activity 1.2: Community consultations and mobilisation																
Activity 1.3: Overall project plan based on recommendations from stakeholders																
Activity 1.4: Develop site selection criteria for demonstration sites																
Activity 1.5: Site selection																
<b>2. Outcome 2: Assessment of baseline and identification of land/resource management issues</b>																
Activity 2.1: Conduct baseline studies																
Activity 2.2: Conduct a community specific socio-economic evaluation																
Activity 2.3: Hold meeting with community to identify the root causes and options																
<b>3. Outcome 3: Formation of the community-based organization (CBO) and appropriate management structures</b>																
Activity 3.1: Establish appropriate management structures																
Activity 3.2: Train CBO																

Component and Activities	Year 1				Year 2				Year 3				Year 4			
	Q1	Q2	Q3	Q4												
<b>4. Outcome 4: Develop management plan based on best practices, including M&amp;E framework.</b>																
Activity 4.1: Develop community specific management plan and alternate income strategies																
Activity 4.2: Design a M& E framework																
<b>5. Outcome 5: Implement tourism ventures</b>																
Activity 5.1: Prepare tourism development plan and community-based tourism activities																
Activity 5.2: Compare to baseline and adjust on regular basis																

<b>6. Outcome 6: Monitor and disseminate results</b>																
Activity 6.1: Verify monitoring with specialists																
Activity 6.2: Draft report on lessons learned																
<b>7. Outcome 7: Adaptive Management and Learning</b>																
7.1 Project implemented in a cost-effective manner in accordance with agreed work plans and budgets																
7.2 Monitoring and Evaluation Plan provides inputs for robust adaptive management																
7.3 A clearly defined mechanism for replication of the community-based tourism development in other comparable areas																

## **Namibia: Conservation and tourism through strengthened partnerships**

### **6. Linkage to National Priorities and Programmes**

Namibia has a well-developed protected area network, consisting of national parks and game reserves. Conservation inside protected areas is complemented by actions outside of State-owned parks through the Community Based Natural Resources Management (CBNRM) approach. CBNRM empowers communities to share natural resources management responsibilities and benefits with government. CBNRM has contributed significantly to meeting national conservation and development goals through communal and freehold conservancies.

Conservation efforts are supported by a favourable government policy and legal framework. This includes the Constitution which makes strong provision for environmental management; the current National Development Plan IV, National Policy on Protected Areas' Neighbours and Resident Communities of 2013; Controlled Wildlife Products and Trade Act of 2008; Parks and Wildlife Management Bill of 2012; Policy on Tourism and Wildlife Concessions on State Land of 2007 amongst others.

- The National Development Plan IV (2012/13 to 2016/17) identified sustainable tourism as one of the four priorities for economic development. The Plan promotes tourism activities that are linked to the protection of the natural resource base (natural environment, wildlife, culture) and support local participation and equity.
- The national policies and laws governing natural resources use and management have a common goal of conserving the natural environment while at the same time providing socio-economic benefits to the citizens, with particular attention to marginalised communities.

### **7. Name and Post of Government Representatives endorsing the Demonstration Activity**

Ministry of Environment and Tourism

### **8. Project Objectives and Activities**

#### 8.1 Background

- 8.1.1. To contribute to government's overall natural resource management goal, the Ministry of Environment and Tourism in 2008 awarded a tourism concession to Gciriku community; comprising of Muduva Nyangana Conservancy, George Mukoya Conservancy and Gciriku Traditional Authority. The concession is for tourism development inside the Khaudum National Park, which falls within the Cubango-Okavango River Basin (CORB). The concession offers an opportunity to demonstrate a model that strengthens conservation and socio-economic objectives through a partnership approach, involving a national park, conservancies, communities and the private sector.
- 8.1.2. Although Protected Areas and conservancies have contributed to conservation and sustainable natural resource use, the parks remain largely separate from the people who live around their borders or within the parks. This often results in negative impacts on the habitats and wildlife because neighbouring communities are hostile to the parks. People living in or next to protected areas suffer losses from human-wildlife conflicts. Most protected areas were established on land that was once occupied by people and many park neighbours today still have cultural associations with areas within the parks.
- 8.1.3. Even though the concession has been granted to the community, capacity development and partnership building will be required for sustainable tourism development. Community driven conservation programmes (e.g. conservancies) have demonstrated that communities often have limited knowledge and skills in enterprise development; governance and management; conservation; environmental management; access to funding and networking. CBNRM experience in Namibia has also demonstrated that with ongoing support and mentoring,

communities are able to develop and maintain governance systems and sustainable income generating ventures.

## 8.2. Objectives and Activities

### **Demo Objectives**

- 8.2.1. The objective of the demonstration project is to empower local communities to address losses resulting from human wildlife conflicts; poaching; illegal harvesting of resources and maximize socio-economic benefits derived from natural resources. This will be achieved through implementation of locally designed agreed measures favouring sustainable management of commons. The project will pay particular attention to strengthening tourism within the basin; by expanding on tourism routes and creating new tourist attractions (e.g. cultural tourism, local crafts, guided walks) that rely on local knowledge and understanding of the challenges in protected area networks. Also, the project will promote tourism in areas away from, but connected to, the more environmentally sensitive areas of the basin (e.g. riparian fringe).
- 8.2.2. The project will enhance partnerships – between parks, conservancies and neighbouring communities. It will also improve parks/conservancy/community interactions with the private sector and other stakeholders (*inter alia*, relevant ministries, non-governmental organisations). In so doing, it will support joint responsibilities, planning, learning, and sharing of benefits from conservation. In addition, the project will improve the livelihoods of the local communities by strengthening income derived from tourism, create employment and improve resilience to climate change through demonstration of supplementary livelihoods options. The project will address gender issues and ensure equitable access to resources as well as benefits.
- 8.2.3. The project will build local level capacity for sustainable tourism development and operations. Accordingly; training, ongoing mentoring and support will be provided in *inter alia*, entrepreneurial development, tourism values, conservation, governance, management, and maintenance.
- 8.2.4. The project will explore and test market opportunities for tourism, which promote innovation. It will set up of a modest, yet comfortable and attractive community tourism establishment that will fit within the natural environment. The tourism establishment will be managed in accordance with national eco-awards standards. The project will demonstrate mitigation of human-wildlife conflicts by setting up protection measures at the establishment.
- 8.2.5. Important to note is that the proposed campsite will not be an isolated establishment: as noted earlier it will in fact slot into a bigger tourism network in this part of the CORB, and may eventually even have transboundary connections.

### **Output 1: Inception report and Site selection**

#### **Activity 1.1: Conduct literature review**

The literature review will cover a wide array of strategies to determine best practices of community-based approaches to tourism development in environmentally sensitive areas. The review of projects will include semi-arid regions. Also, the review will cover strategies of projects implemented in targeted cultures that address environmental management of protected areas.

#### **Activity 1.2: Develop an implementation plan based on recommendations from stakeholders**

The project team will develop an overall project implementation plan based on findings of the literature review. The plan will be refined with inputs from local specialists familiar with project implementation within communities, conservation scientists, traditional leaders, conservancy committees, local park management experts, and community organizations.

The government has already granted a concession for tourism development within Khaudum National Park to Gciriku community; comprising of Muduva Nyangana Conservancy, George Mukoya Conservancy and Gciriku Traditional Authority. A Joint Tourism Management Committee is also in place for the two conservancies.

## **Output 2: Assessment of baseline and identification of natural resource management issues**

### **Activity 2.1: Conduct baseline studies**

The project will identify natural resources management issues, major challenges, and potential solutions through a participatory process. Relying on assistance from conservancies, traditional authorities, park management staff and identified stakeholders, it will be important to conduct local studies that establish baseline conditions to include photographs, interviews with elderly persons who can clarify how changes have occurred, and with conservation experts, and to include impacts of climate variation, including tracing of recent meteorological trends over the past decades and closely monitoring conditions during project implementation.

### **Activity 2.2: Conduct a community specific socio-economic evaluation**

Community specific socio-economic evaluations will be conducted concurrently with the baseline studies. It would be critical to characterize the selected communities for variables, which will be needed for future comparison and replication. These variables will include:

- Socio-economic benefits derived from natural resources
- Current community management practices
- The economic scenarios of impacts of current management practices, and impacts of alternate scenarios based on strengthened tourism development
- The shifts in gender roles, if any, as a result of demographic changes in the region
- Potential for alternate income sources within the community that may improve resilience of communities to change.

Following the socio-economic evaluations, the project will draft community specific socio-economic reports to be presented in conjunction with community meetings emphasizing the range of strategies available based on the scenarios developed within the literature review and inception report.

### **Activity 2.3: Hold meeting with community to identify the root causes and options**

In order to decide how to best address and improve the conditions the community will be asked to gather for a meeting to discuss the strategies garnered from the literature review, the overall plan, the summary findings of the baseline studies, and the results of the community specific socio-economic evaluation. With as many community stakeholders as possible, the meeting will select appropriate approaches to use within the specific community. Community feedback will be critical to ensure support for the project and reaching consensus regarding sustainable tourism development strategies to be employed in the area.

## **Output 3: Strengthening of Joint Tourism Management Committee**

### **Activity 3.1: Nominate members to the Sekereti management committee**

The project will support development of a community campsite at Sekereti as a demonstration action for community-based sustainable tourism. The project will create tourism linkages of the campsite with conservancies and communities (e.g. through guided walks, storytelling, crafts). It is envisaged that the financial benefits thereof will trickle down to the communities through the conservancy. The existing Joint Tourism Management Committee will coordinate and take the lead in implementation of the plans on behalf of the concessionaire. Committee members would have to commit time for meetings, training and provide assistance with monitoring and evaluations. The committee may include, inter alia, community representatives, conservancy members, private operators and any other stakeholder group deemed appropriate.

### **Activity 3.2: Training and mentoring of National Management Committees**

The project will empower the Committee (existing Joint Management Committee) to be able to promote sustainable tourism through relevant training. The training will build knowledge and skills in the areas of tourism development, basic ecology, environmental management, entrepreneurship, governance, management, networking etc. among other things. Monitoring and evaluation strategies will also be introduced to the Committee. In later parts of the project the committee will receive “training of trainers” and curriculum implementation training to be shared with the rest of the community. Other than the training sessions, the committee will also receive ongoing mentoring and support.

**Output 4: Develop management plan based on best practices and a marketing strategy, including a M&E framework**

**Activity 4.1: Develop community specific management plans and alternative income sources**

The project and the Joint Tourism Management Committee will facilitate the formulation of a management plan. The management plan will also outline alternative income generating sources (tourism and other opportunities). Another key element of the plan will be the formulation of a marketing strategy for community led tourism. The plan will be developed following a participatory approach, involving inputs from the communities and stakeholders.

**Activity 4.2: Design a M& E framework**

The Committee and project experts will develop a Monitoring and Evaluation framework to periodically review the progress of the project. The M&E strategy will also review the implications of the alternate income source development, its impact on the communities and potential for sustainability following project completion. The M&E framework will be presented to the community, to garner further support for the project, with clear delineation of the boundaries, protocols for modifying the agreed rules, role of graduated sanctions, conflict resolution mechanisms, and roles and responsibility of monitors.

**Output 5: Implementation of the management plan**

**Activity 5.1: Establish partnerships**

A critical success factor for the demonstration project will be enhanced partnerships between the community, conservancies, management team of the park and private sector tourism developers/operators within and around the park. The project will explore and test options for building and maintaining stakeholder partnerships. This may include, developing and testing joint tourist routes and other tourist attractions. In addition, the project will also establish reporting mechanisms amongst the key stakeholder groups, such as establishment of a forum that meets quarterly.

**Activity 5.2: Implementation of the plan**

The project will implement the management plan. The major elements for implementation of the plan will include construction of a community campsite, ongoing capacity development, testing of marketing strategy and sharing of benefits, identification and implementation of mitigation measures against human-wildlife conflict and ensuring gender mainstreaming in all actions. The Committee will spearhead implementation at local level and carefully track the benefits and challenges faced on a regular basis.

**Activity 5.3: Compare to baseline and adjust on regular basis**

In order to most effectively implement the project, the Committee will provide reports to the project team on activities implemented at local level. Adjustments will be made on a regular basis as needed. This will include development of ideas on how to improve conditions for those in communities who are not actively involved in tourism, and initial steps towards implementation of those efforts in conjunction with other development projects.

**Output 6: Monitor and disseminate results**

**Activity 6.1: Verify monitoring with specialists**

Community monitoring will be overseen by the project team and verified by visits as needed, and adjustments supported in order to refine the strategies to fit the needs of the communities and the ecological conditions.

#### **Activity 6.2: Draft report on lessons learned**

For each community and for the full demonstration project, reports will be drafted that include detailed lessons learned, garnered from both experts and communities on the effectiveness, benefits and challenges of the project implementation.

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### **8.3. End-of Project Landscape (Outputs) outcomes**

At the conclusion of the demonstration project the following will be available:

- Best practices and strategies for sustainable tourism at community level which will inform additional projects in the region, as well as within the broader SADC and GEF portfolio of projects. Through close monitoring and evaluation with regular adjustments as needed, the demonstration project will strengthen the understanding of what is needed to successfully implement community based tourism and natural resources management, and what the impacts on the biodiversity are as a result of those actions.
- The project will produce a baseline assessment of local conditions, including physiological and socio-economic factors, which will influence project implementation, and a baseline review of conditions. This baseline assessment can serve as a model for future projects, and for future reviews of local conditions.
- Empowerment of local management structures such as the Management Committee for sustainability of project activities.
- While GEF projects do not often focus on socio-economic development, the poverty reduction emphasis within the alternative income sources of this project sets a precedent that shifts dependence from non-sustainable practices to more sustainable practices that also contribute to conservation of biodiversity.

### **9. Project Management Structure and Accountability**

The project will be contracted under international tender procedures. There will be an open invitation for expressions of interest and a short-list of tenderers will be assembled in consultation with OKACOM. The GEF Project Coordination Unit based in the OKACOM secretariat will oversee the project execution. A demonstration Project Implementation Unit (PIU) will be established with satellite offices in each country. The PIU will report to the GEF project manager and the national project coordinators who in turn will report to the National Focal Points. The demonstration project through the PCU shall report regularly to the Project Board. The Ministry of Environment and Tourism will help steer the project through their participation on the national demo Management committee.

### **10. Stakeholders and Beneficiaries:**

The stakeholders involved in this project, and the beneficiaries include local community organisations (two conservancies), neighbouring communities, traditional leaders and park managers, local authorities, and healthcare providers.

### **11. Long-term Sustainability Strategy**

The long-term sustainability for this project is built into the project design by the implementing community designing the project based on their own immediate priorities rather than those of the donor. Impacted and impacting stakeholders will identify their priority problems, the root causes and will be presented with a community specific socio-economic analysis to help them understand the challenges they face. They are asked to develop management solutions based on common property management

principles and then taught how to implement these themselves. The monitoring and evaluation component will demonstrate project effectiveness, and should provide stakeholders with clear incentives to continue to implement the project.

## **12. Replicability**

The design of the project was guided by national policies and priority area. The project will demonstrate how to develop tourism ventures while contributing to conservation and socio-economic upliftment. The Ministry of Environment and Tourism as the leading Ministry for conservation and tourism is keen to learn and upscale lessons learnt from this project to other communities. The staff members of the Ministry will guide the implementation of the project, through the demo steering committee (the role assumed by the National Implementation Unit, established by OKACOM in each country), to ensure that it remains within national priorities and that it can be replicated. The final report of the project will include lessons learned and recommendations for additional replication in other communities.

## **13. Monitoring and Evaluation Process**

The Project Management Unit will produce a brief quarterly Progress Report updating the Steering Committee and the project Execution and Implementation Agencies on the progress of the demo project based on the approved Logical Framework Matrix (NAM Tourism Annex 1) and the project work plan (NAM Tourism Annex 2). Once every year a detailed report will be submitted through the Steering Committee to the Executing Agencies. This report will provide a full review of the work plan to identify project achievements and deliveries versus the approved schedule, budget expenditures, recommendations with respect to any amendments to work plan and budget, staff contracting and performance, and any other information required by the Steering Committee and/or the Executing Agencies.

In addition to this, the demo project strategy and objectives, intended outputs, implementation structure, work plans and emerging issues will be regularly reviewed and evaluated annually by the Project Steering Committee. Periodic Status Reports will be prepared at the request of the Steering Committee for presentation at key meetings associated with the Project.

### **The demonstration project will also be subject to:**

- Internal Project Implementation Reviews to be conducted by the Project Manager and submitted to the implementing agency every six months.
- An independent final project evaluation to be undertaken in conjunction with the Terminal Evaluation for the FSP.

The project evaluations will be carried out in accordance with UNDP-GEF requirements and will cover all aspects of the project. They will include: an assessment of (a) the outcomes generated, (b) the processes used to generate them, (c) project impacts, and d) lessons learned. Advice will be given on how the M&E results can be used to adjust the work if needed and on how to replicate the results in the region.

#### 14. Funding

The total contribution requested from GEF is USD 370,000 within a 4-year period (see Budget for details).

<b>TOTAL PROJECT WORKPLAN AND BUDGET</b>						
<b>Project Title: Enhancing community livelihoods through the establishment of new tourism opportunities and strengthened partnerships</b>						
<b>GEF Outcome/Atlas Activity**</b>	<b>Sub-components</b>	<b>Amount (\$) Year 1</b>	<b>Amount (\$) Year 2</b>	<b>Amount (\$) Year 3</b>	<b>Amount (\$) Year 4</b>	<b>Total (\$) All Years</b>
1. Inception report and site selection	1.1. Conduct literature review	5,000				5,000
	1.2. Develop an implementation based on recommendations from stakeholders	15,000				15,000
	<b>Sub-total</b>	<b>20,000</b>				<b>20,000</b>
2. Assessment of baseline and identification of natural resource management issues	2.1. Conduct baseline studies	15,000				15,000
	2.2. Conduct a community specific socio-economic evaluation	15,000				15,000
	2.3. Hold meeting with community to identify the root causes and options	5,000				5,000
	<b>Sub-total</b>	<b>35,000</b>				<b>35,000</b>
3. Strengthening of Joint Tourism Management Committee	3.1. Nominate members to Management Committee		15,000			15,000
	3.2. Training and mentoring of management committee		30,000	30,000		60,000
	<b>Sub-total</b>	<b>0</b>	<b>45,000</b>	<b>30,000</b>		<b>75,000</b>
4. Develop management plan based on best practices and a marketing strategy, including a M&E framework	4.1. Develop community specific management plans, alternative income sources	25,000				25,000
	4.2. Design a M&E framework	5,000				5,000
	<b>Sub-total</b>	<b>30,000</b>				<b>30,000</b>
5. Implement management plan and alternative income strategies	5.1. Establish partnerships	5,000	5,000	5,000		15,000
	5.2. Implementation of plans	10,000	75,000	45,000		130,000
	5.3 Compare to baseline and adjust on regular basis				5,000	5,000
	<b>Sub-total</b>	<b>15,000</b>	<b>80,000</b>	<b>50,000</b>	<b>5,000</b>	<b>150,000</b>
6 Monitor and disseminate results	6.1 Verify monitoring with specialists	5,000	20,000			25,000
	6.2 Draft report on lessons learnt			35,000		35,000
	<b>Sub-total</b>	<b>5,000</b>	<b>20,000</b>	<b>35,000</b>		<b>60,000</b>
	<b>Total</b>	<b>105,000</b>	<b>145,000</b>	<b>120,000</b>		<b>370,000</b>

**NAM Tourism ANNEX 1**

	<b>Objectively Verifiable Indicators</b>	<b>Sources of Verification</b>	<b>Assumptions and Risks</b>
<b>OUTCOME</b>	Community livelihoods enhanced through the establishment of new tourism opportunities and strengthened partnerships		
<b>ACTIVITIES</b>	<b>1. Inception report and selection of participating communities</b> <ul style="list-style-type: none"> <li>▪ Conduct literature review</li> <li>▪ Develop overall plan based on recommendations from stakeholders</li> <li>▪ Develop selection criteria for participating communities</li> <li>▪ Select participating communities</li> </ul>	Project plan and inception report drafted Selection criteria defined and participating communities selected	Project Plan and inception report Criteria and report on selection of participating communities Appropriate communities selected
	<b>2. Assessment of baseline and identification of natural resource management issues</b> <ul style="list-style-type: none"> <li>▪ Conduct baseline studies</li> <li>▪ Conduct a community specific socio-economic evaluation</li> <li>▪ Hold meetings with community to identify the root causes and options</li> </ul>	Natural resource management and socio-economic issues identified	Database of information, including maps Socioeconomic evaluation Baseline assessment report Baseline reflective of actual conditions Socio-economic evaluation using appropriate variables Community committees have appropriate authority to oversee project implementation
	<b>3. Strengthening the Joint Management Committee</b> <ul style="list-style-type: none"> <li>▪ Conduct capacity needs assessment</li> <li>▪ Provide ongoing training and mentoring</li> </ul>	Knowledge and skills development	ToR/constitution for JMC Meeting minutes Training needs assessment reports Proceedings from training sessions Communities and stakeholders supportive of project goals and willing to serve on TMC

		<b>Objectively Verifiable Indicators</b>	<b>Sources of Verification</b>	<b>Assumptions and Risks</b>
			Management plans	
	<b>4. Develop management plans based on best practices and marketing strategy, including M&amp;E framework.</b> <ul style="list-style-type: none"> <li>▪ Develop community specific management plans</li> <li>▪ Design a M&amp; E framework</li> </ul>	Management plans developed M&E framework developed	Management plans M&E framework Proceedings from consultation meetings	Communities and stakeholders willing to contribute to project
	<b>5. Implement management plans and alternative income strategies</b> <ul style="list-style-type: none"> <li>▪ Establish partnerships</li> <li>▪ Implement strategies and actions from the plan</li> </ul>	Tourism stakeholders supporting community actions Community campsite developed Improvement in natural resource management Improvement in income generation from alternative sources	Proceedings from meetings with stakeholders Memorandum of agreements between community and partners Monitoring reports (comparison of improvements to baseline report)	Proposed community actions are effective Communities see value (incentives) for participation
	<b>6. Adaptive Management and Learning</b> <ul style="list-style-type: none"> <li>▪ Implement M&amp;E plan to provide robust adaptive management</li> <li>▪ Document lessons learned and disseminate information</li> </ul>	Demonstration project meets intended objectives Lessons learned documented and shared Strategy for replication	M&E reports Dissemination materials Report on strategy for replication	Project is replicable

**NAM Tourism ANNEX 2**

Component and Activities	Year 1				Year 2				Year 3				Year 4			
	Q1	Q2	Q3	Q4												
<b>Outcome 1:</b> Inception report and site selection	■	■														
Activity 1.1: Conduct literature review	■	■														
Activity 1.2: Develop an implementation plan based on recommendations from stakeholders		■														
<b>Outcome 2:</b> Assessment of baseline and identification of natural resource management issues		■	■	■												
Activity 2.1: Conduct baseline studies		■	■													
Activity 2.2: Conduct a community specific socio-economic evaluation		■	■													
Activity 2.3: Hold meeting with community to identify the root causes and options			■	■												

<b>Outcome 3:</b> Strengthening of Joint Management Committee				■	■	■	■	■	■	■	■	■				
Activity 3.1: Nominate members to the Management Committee				■												
Activity 3.2: Training and mentoring of Joint Tourism Management Committee				■	■	■	■	■	■	■	■	■				
<b>Outcome 4:</b> Develop management plans based on best practices and marketing strategies, including M&E framework		■	■	■												
Activity 4.1: Develop community specific management plans, alternative income source		■	■	■												
Activity 4.2: Design M&E framework		■	■													

Component and Activities	Year 1				Year 2				Year 3				Year 4			
	Q1	Q2	Q3	Q4												
<b>Outcome 5:</b> Implement management plans and alternative income strategies			■	■	■	■	■	■	■	■	■	■				
Activity 5.1: Establish partnerships			■	■	■	■										
Activity 5.2: Implementation of the plan					■	■	■	■	■	■	■	■				
Activity 5.3 Compare to baseline and adjust on a regular basis					■	■	■	■	■	■	■	■				
<b>Outcome 6:</b> Monitor and disseminate results			■	■	■	■	■	■	■	■	■	■				
Activity 6.1: Implement M&E plan to provide robust adaptive management	■	■	■	■	■	■	■	■	■	■	■	■				
Activity 6.2: Document lessons learned and disseminate information	■	■	■	■	■	■	■	■	■	■	■	■				

## **Demonstration Project 2: Improving conservation and sustainable use of the shared fish resources of the Cubango-Okavango River Basin through co-management approach**

**1. Country(s):** Namibia, Angola

**2. Title:** Improving conservation and sustainable use of the shared fish resources of the Cubango-Okavango River Basin through co-management approach

**3. Executing Agency:** TBD

**4. Cost of Project:** GEF: US\$ 430,000 per state; Co-Finance: TBD

### **5. Linkage to Cubango-Okavango River Basin SAP Priorities:**

Central to the CORB SAP is improvement of the livelihood of the basin's people through the cooperative management of the basin and its shared natural resources. As such the objective of Thematic Area 1 of the SAP 'Livelihoods and Social Economic Development' is 'Sustaining key livelihood activities such as agriculture, livestock and fisheries and ensuring productivity improvements while reducing/mitigating environmental impacts of activities'. The SAP calls on a series of demo projects to trial different low-impact development strategies in each on the basin countries.

### **6. Linkage to National Priorities and Programmes**

- The Cubango-Okavango river basin supports predominantly rural communities most often located either adjacent to the river or along roads. In each country, the basin populations are remote relative to the countries' capital cities and main centres of economic activity and this is reflected in social development indicators in the basin that are lower than the national figures. In general, the people of the basin are poorer, less healthy and less well educated than other groups in their respective countries.
- National social and economic development policies, including achievement of the Millennium Development Goals, which have recently been replaced by Sustainable Development Goals, target these communities and put added pressure on the water resources of the basin and the services provided by the river system. The goods and services are important not only for the myriad riparian community livelihoods they support, ranging from artisanal fisheries to small-scale agriculture, but also a major eco-tourism industry in some parts of the basins such as in the Okavango Delta.
- All the communities in the Cubango-Okavango river basin use the natural resources of the river and the surrounding land as an important contribution to their livelihoods. The importance of fisheries to livelihoods varies in different sections of the river. In *Angola*, local fishermen recognize the importance of fish migrations and the fact that during flood season, fish catches decline significantly. When consulted during the TDA study, the majority of people felt that the fishing situation was quite stable, but were aware that habitat destruction and overexploitation contribute towards reduced catches, and that there is a need for conservation measures.
- In *Namibia*, fishing also makes an important contribution to the livelihoods of riparian communities, although they recognize that the fish catches have been changing, with fewer cichlids being caught in some areas as a result of selective gillnetting. Studies are showing that the fishery resources of the Kavango River are coming under increasing and unsustainable commercially orientated fishing pressure, to the detriment of the local communities' food security and sustainable livelihoods and to Kavango river tourism. It was observed that fish catches around the Mahango Game Reserve are however better protected.

### **7. Name and Post of Government Representatives endorsing the Demonstration Activity**

*Lead implementation (including monitoring) - Ministry of Fisheries and Marine Resources (Namibia) and Institute of Artisanal Fisheries (IPA) (Angola) and (b) endorsing the project Ministry of Environment and Tourism (Namibia) and Ministry of Fisheries (Angola)*

## **8. Project Objectives and Activities**

- In order to address this situation, a multi-faceted approach is needed to communicate with and guide the fishing communities to use sustainable methods only. It is widely recognized that co-management is the way forward, and this is explicitly promoted in the Inland Fisheries Resources Act of Namibia. Pilot co-management projects are proving successful in the Zambezi floodplain areas to the east of Kavango and the MFMR, with project partners, is looking to strengthen community involvement in fisheries management in the Kavango region.
- The management approach proposed would strengthen involvement of communities in the protection of fisheries resources and seek to identify socio-economic incentives that will motivate community participation. Environmentally, the approach will eliminate destructive fishing gears from the fishery to maintain aquatic habitat structure and prevent peripheral damage to other fauna and flora. The project will identify community-monitoring tools and provide training thereof.
- The project will foster a transboundary approach to fisheries management between Namibia and Angola. This would entail capacity development, development of standardized monitoring methods and data sharing protocols.

### **8.1 Objectives and Activities**

#### **General Objectives**

The two overall outcomes of the OKACOM-UNDP-GEF project component 2 are:

- Environmentally sound socioeconomic development demonstrated in the basin to allow the basin population to improve their socioeconomic status with minimum adverse impacts to and enhanced protection of the basin ecosystem.
- Replicable strategies to realise, replicate and upscale food security, inclusive growth, enhanced income generation, gender empowerment, climate change adaptation and resilience demonstrated

The integrated Flow Assessment studies showed that ecosystem services provided by the Cubango-Okavango to the basin communities are considerable and their value when compared with conventional water resource developments (irrigation, hydro-power) has been underestimated, particularly as a direct contribution to the socioeconomic status of the basin communities. This is recognised in the OKACOM SAP document there is a call to promote a range of livelihoods closely linked to basin's ecological services and food security. In response the OKACOM-UNDP-GEF project, with guidance from the countries, has chosen four demonstration areas, linked to policy guidance documents, for demonstrating:

- A basin-wide transboundary tourism strategy developed and agreed and community based tourism demo established and tested.
- Strategies to mitigate human-wildlife conflicts caused by increased tourism developed and tested
- Transboundary fisheries management guidelines developed and tested at the community level to protect and enhance fish stocks and preserve fish diversity.
- Community-based activities promoting food security and climate change adaptation and resilience.

The project will demonstrate low impact environmental development options where interest is not primarily the feasibility of the methods and techniques introduced, since in many cases their general suitability has already been proven, but rather the economic return of these 'alternative development pathway' options. It is hoped the demo projects will demonstrate more concretely the conclusion

reached at the TDA stage that these options are more economic than other conventional higher impact basin development options, such as large irrigation developments, especially when benefits to the basin communities are taken into account.

### **Demo Objectives**

The objective of the demonstration project is to conserve the fisheries resources and provide recovery time for the fish stocks. The project will also introduce measures to preserve fish species diversity in the study areas. An important component of the project will be to control the rapid spread of unsustainable fishing methods in selected parts of the basin which is driven by outside, as well as local, commercial interests.

- The project will build partnerships between government and local community groups to contribute to the long-term objective of fisheries conservation. The community-based approach will provide a socio-economic benefit to participating communities through income generation from conservation efforts.
- The project will be supported through local stakeholder activities and guidance and designed with the intention of post-project long term sustainability, institutional fit with other institutions, and training of trainers to enable the lessons learned here to be shared with neighbouring communities facing similar challenges. Through respect for local knowledge, support of local institutions, development of alternate sources of income, and a strong emphasis on replicability, this demonstration project seeks to improve fishery stocks while also preserving local understanding of the ecology of these areas.

### **Output 1: Inception report and site selection**

#### **Activity 1.1: Conduct literature review**

The literature review will include a comprehensive review of all information on the fish and fisheries of the Cubango-Okavango river system. It will also cover a wide array of strategies to determine best practices of community based management approaches to fisheries management. In particular, it will draw on existing experiences from the conservancy approach as well as experience from management of fishing protection zones on the Zambezi River, but in addition will review all other experiences with fisheries co-management in inland waters of Africa, in order to avoid the same mistakes that have hampered efforts to rescue depleted fisheries in some areas.

#### **Activity 1.2: Stakeholders and community consultations**

The project team, including select members of the Basin Wide Stakeholder Forum and National Stakeholder forum, will develop an overall project plan based on findings of the literature review. The plan will be refined with inputs from local specialists familiar with project implementation within NGOs (most notably from the Zambezi co-management projects), local communities, fisheries ecologists, traditional leaders, farmers, and local authorities, and community organizations.

#### **Activity 1.3: Develop site selection criteria for fish protection zones**

Sites will be proposed and selected based on the weighted criteria developed by the project team based on the literature and with inputs from stakeholders. It is anticipated that two communities in each country will be selected. The criteria will likely consider the following:

- likelihood of success and input of community for sustainability
- existing community structures (e.g. conservancies)
- potential for replication
- current resources availability to the community
- trends, challenges and conflicts existent in the area
- potential for training local population to train others in neighbouring communities
- inter-community tensions over resources, range land use and other issues
- ethnic make-up as relevant
- community leaders able and willing to accept responsibility for project implementation

#### **Activity 1.4: Site selection**

Based on the criteria and available communities the project will make the selection of sites with inputs of project staff, experts, traditional leaders and stakeholders. This will also take into account other

community based natural resources management practices currently underway in the basin, and will work to complement these efforts as appropriate. The selection process will involve nomination of candidate communities, through coordination with other development projects, project staff familiar with communities within the basin, regional and local government departments, local leadership structures and through the literature review. The candidate sites will be visited by the project staff and evaluated based on the criteria developed by the project team. Once conducted meetings will be held to determine the optimal communities to be selected for participation within the project.

## **Output 2: Development of transboundary fisheries monitoring protocol**

### **Activity 2.1: Develop standardized survey methods for adoption in Namibia and Angola**

Standard methods for monitoring and surveying will be developed for Angola and Namibia. This will be based on information gathered through literature reviews, consultations with stakeholders, participatory assessment of current methods and monitoring parameters. Tools for monitoring will then be developed, particularly targeting the fisheries communities. Applicability of the methods will be tested in the four project sites.

### **Activity 2.2: Strengthen fisheries data base in Namibia and Angola**

This activity will involve the review of the existing database in the two countries. The database will be upgraded as found relevant. As part of upgrading the database, a data sharing protocol will also be developed.

### **Activity 2.3: Train communities and national level staff in the use of equipment and research methodologies**

A joint fisheries monitoring programme will be developed, which will identify the role of all stakeholders (government ministries in the two countries and community members). Training will be provided to communities and government staff members in fisheries monitoring. The project will identify research areas in consultation with stakeholders. Researchers (including students) will assist in conducting relevant research.

## **Output 3: Formation of community based fisheries management institutions (committees and declare fisheries protection zones)**

### **Activity 3.1: Conduct baseline studies**

Once the communities for project intervention are identified, it will be important to conduct local studies that establish baseline conditions of fisheries stock (numbers, diversity, size) as well as use and management thereof (fishing methods, income etc.) to include photographs, interviews and biological observations.

### **Activity 3.2: Conduct community specific socio-economic evaluation**

Concurrently with the assessment of baseline conduct community specific socio-economic evaluations. It will critical to characterize the selected communities for variables, which will be needed for future comparison and replication. These variables should include:

- The role of fisheries within the traditional culture and impacts on existing beliefs on fishery stocks
- The economic importance of fisheries to local, district, national, and basin-wide levels
- The role of environment and environmental stewardship within communities via surveys with individuals
- The economic scenarios of impacts of current fishing practices, and impacts of alternate scenarios using other approaches
- The shifts in gender roles, if any, as a result of demographic changes in the region
- Potential for alternate income sources within the community that may decrease the overall dependence on fishing for economic sustenance.

Following the socio-economic evaluations, the project will draft community specific socio-economic reports to be presented in conjunction with community meetings emphasizing the range of strategies available based on the scenarios developed within the literature review and inception report.

### **Activity 3.3: Hold meeting with community to identify the root causes and options**

In order to decide how to best address and improve the conditions the community will be asked to gather for a meeting of presentations to include the strategies garnered from the literature review, the overall plan, the summary findings of the baseline studies, and the results of the community specific socio-economic evaluation. With as many community stakeholders as possible, the meeting will select appropriate approaches to use within the specific community, based on the root causes and options available. Community feedback throughout the meeting will be critical to ensure support for the project and consensus building regarding fisheries management strategies to be employed in the area.

### **Activity 3.4: Delineation of fisheries protection zones and selection (nomination) of committees and subcommittees**

At the open community meeting the group will be asked to nominate members of a local fisheries committee to provide more in depth information, and be most directly involved with the project implementation. The committee members will need to be closely related to the issues to be addressed and able to commit to time for meetings, assistance with monitoring and evaluations. The committee members may include, inter alia, community elders, herd boys, traditional healers and health care providers, farmers, teachers, and community leaders. These members should be representative of the community demographics and should be weighted for those who are most economically dependent on the fishery.

### **Activity 3.5: Awareness raising and training**

Once recruited, the committee members will receive training on aspects of the project that will enable them to implement and enforce the agreements made by the community, such as fishing times, when to fish, appropriate fishing gears, what to monitor, what to report and to whom etc. Additionally, they will receive more advanced training on principles of fisheries management as well as overall project management and financial management skills. Monitoring and evaluation strategies will also be introduced to the committee members. In later parts of the project the committee members will receive "training of trainers" and curriculum implementation training to be shared with neighbouring community.

## **Output 4: Develop and implement management plan and alternative income generation strategies**

### **Activity 4.1: Develop and implement community specific management plans and alternative income sources**

Based on the inputs from the community meetings, and with the trainings, the committees and the project experts will develop a management plan based on best practices and governance principles outlined in the project objectives to be applied locally. The plan will need to conform to local traditional justice systems, as well as national laws and regulations and will need formal support of the agencies responsible for oversight of fisheries. The management plans will be presented to the whole community for comment and revision in order to insure acceptance and buy-in to the project.

The management plan will set objectives and targets to restore fish stocks, as well as explore options for alternate income sources for communities to reduce pressures brought about by unsustainable fishing practices. Though fishing practices will be difficult to adjust, they will be addressed and where agreed, altered to enhance preservation of sensitive areas. The alternate income activities, which will need to stem from local understanding of the needs and capacities, will be supported.

### **Activity 4.2: Design a M& E framework**

The committees and project experts (including ministries of fisheries in Angola and Namibia) will develop an agreed Monitoring and Evaluation strategy to periodically review the progress of the project and status of the fishing stocks, and to make certain that the project is being implemented as agreed by the community. The M&E strategy will also review the implications of the alternate income source development, its impact on the communities and potential for sustainability following project completion.

The M&E framework will be presented to the community, emphasizing fisherman involvement, to garner further support for the project, with clear delineation of the boundaries, protocols for modifying the agreed rules, role of graduated sanctions, conflict resolution mechanisms, and roles and responsibility of monitors.

Community monitoring should be overseen by specialists and verified by visits as needed, and adjustments supported in order to refine the strategies to fit the needs of the communities and the ecological conditions.

#### **Activity 4.3: Document lessons learned and disseminate**

For each community and for the full demonstration project reports will be drafted that include detailed lessons learned, garnered from both experts and from the committee reports on implementation effectiveness, benefits and challenges of the project implementation.

#### **Output 5: Adaptive Management and Learning**

Based on the requirements of GEF demonstration projects the following activities will be included in the project implementation.

- Project implemented in a cost-effective manner in accordance with agreed work plans and budgets
- Monitoring and Evaluation Plan provides inputs for robust adaptive management
- A clearly defined mechanism for replication of the alternate income programme to other comparable areas.

### **8.2. End-of Project Landscape (Outputs) outcomes**

At the conclusion of the demonstration project for following will be available:

- A literature review of best practice in strategies for community based fisheries management, which will inform additional projects in the region, as well as within the broader SADC and GEF portfolio of projects. This will include a set of criteria for site selection, and review of which strategies work most effectively in which conditions.
- The project will produce a baseline assessment of local conditions, including physiological and socio-economic factors, which will influence project implementation, and a baseline review of conditions. This baseline assessment can serve as a model for future projects, and for future reviews of local conditions.
- The design and implementation of the project at the local level, by the local stakeholders will provide a proven outline for community involvement and resource management projects, with development of alternate income sources to diversify local economies. The reliance on local understanding and knowledge, supplemented by experts as needed increases the sense of project ownership, while also increasing sustainability and over all knowledge base. Local stakeholders often are far more aware of local conditions and have much higher incentives to adapt, especially when that knowledge is harnessed and treated with the respect it deserves. This sets a precedent of increasing strategy effectiveness by building on local knowledge, which will benefit similar projects throughout the GEF portfolio. While GEF projects do not often focus on economic development, the poverty reduction emphasis within the alternate income sources of this project sets a precedent that shifts dependence from non-sustainable practices to more sustainable practices that also respect local traditions, needs and insights into their own conditions.
- Through close monitoring and evaluation with regular adjustments as needed the demonstration projects strengthen the understanding of what is needed to successfully implement community based fisheries management, and what the impacts on the ecology are as a result of those actions. Because these strategies will be locally and legally legitimate within

the contexts of existing traditions and regulations, it is assumed that they will be sustainable within the communities, and because members of the fisheries committees have been trained as trainers, additional projects are to expected emerge.

The outcomes for the communities will be:

- Improved fish stocks through decline in unsustainable fishing practices, allowing for long term adherence to traditional activities, while improving local capacities and conditions
- Increased empowerment of local communities to address the challenges of fisheries management based on indigenous knowledge and documentation of this knowledge for future generations
- Increased economic independence for marginalized groups with sustainable incomes.

## **9. Project Management Structure and Accountability**

The project will be contracted under international tender procedures. There will be an open invitation for expressions of interest and a short-list of tenderers will be assembled in consultation with OKACOM. The GEF Project Coordination Unit based in the OKACOM secretariat will oversee the project execution. A demonstration Project Implementation Unit (PIU) will be established with satellite offices in each country. The PIU will report to the GEF project manager and the national project coordinators who in turn will report to the National Focal Points. The demonstration project through the PCU and national demonstration management committee shall report on a regular basis to the Project Board

## **10. Stakeholders and Beneficiaries:**

The stakeholders involved in this project, and the beneficiaries include local rural communities within the region, fisherman, fisheries ecologists, traditional leaders, farmers/ pastoralists, and local authorities, community organizations, and those who purchase the fish, as well as ecologists, conservationists, educators, and public health care providers.

## **11. Long-term Sustainability Strategy**

The long-term sustainability for this project is built into the project design by the implementing community designing the project based on their own immediate priorities rather those of the donor. The project is building on gaps identified in existing interventions and on priorities identified by the government institutions that are responsible for inland fisheries management. Fish protection zones that are piloted in the Zambezi basin are showing positive results. This project will build on experiences from Zambezi for wider applications. Impacted and impacting stakeholders will identify their priority problems, the root causes and will be presented with a community specific socio-economic analysis to help them understand the challenges they face. They are asked to develop management solutions based on common property management principles and then taught how to implement these themselves. The monitoring and evaluation component will demonstrate project effectiveness, and should provide stakeholders with clear incentives to continue to implement the project.

## **12. Replicability**

The project includes a literature review and investigation of socio economic and physiological conditions that impact project strategy and implementation. The array of options that will be presented to the communities on strategies for community based fisheries management can be used with other similar projects and the methodology employed here will be further refined with the intention of being applied elsewhere. The training of trainers component will also enable the lessons learned here to be spread to neighbouring communities by local stakeholders. The final report of the project will include lessons learned and recommendations for additional replication in other communities.

## **13. Monitoring and Evaluation Process**

The Project Management Unit will produce a brief quarterly Progress Report updating the Steering Committee and the project Execution and Implementation Agencies on the progress of the demo project based on the approved Logical Framework Matrix (FISH Annex 1) and the project work plan (FISH Annex 2). Once every year a detailed report will be submitted to the Steering Committee through the Executing Agencies. This report will provide a full review of the work plan to identify project achievements and deliveries versus the approved schedule, budget expenditures, recommendations

with respect to any amendments to work plan and budget, staff contracting and performance, and any other information required by the Steering Committee and/or the Executing Agencies.

In addition to this, the demo project strategy and objectives, intended outputs, implementation structure, work plans and emerging issues will be regularly reviewed and evaluated annually by the Project Steering Committee. Periodic Status Reports will be prepared at the request of the Project Board for presentation at key meetings associated with the Project.

The demo project will also be subject to:

- Internal Project Implementation Reviews to be conducted by the Project Manager and submitted to the implementing agency every six months.
- An independent final project evaluation to be undertaken in conjunction with the Terminal Evaluation for the FSP.

The project evaluations will be carried out in accordance with UNDP-GEF requirements and will cover all aspects of the project. They will include: an assessment of (a) the outcomes generated, (b) the processes used to generate them, (c) project impacts, and d) lessons learned. Advice will be given on how the M&E results can be used to adjust the work if needed and on how to replicate the results in the region.

#### 14. Funding

The GEF will finance costs related to: community level institutional building; promotion and support of transboundary approach to fisheries monitoring and upliftment of livelihoods through income generation. The total contribution requested from GEF is USD 430,000 for each state within a 3-year period (see Budget for details). The co-funding will support networking with all government departments, NGOs, community organisations, etc.; foster collaboration with neighbouring community based management systems for fisheries areas in the Zambezi and Chobe.

<b>TOTAL PROJECT WORKPLAN AND BUDGET</b>						
<b>Project Title: Improving conservation and sustainable use of the shared fish resources of the Cubango-Okavango River Basin through co-management approach</b>						
<b>Components</b>	<b>Indicative Activities</b>	<b>Amount (\$) Year 1</b>	<b>Amount (\$) Year 2</b>	<b>Amount (\$) Year 3</b>	<b>Amount (\$) Year 4</b>	<b>Total (\$) All Years</b>
1. Inception report and site selection	1.1. Conduct literature review	\$10 000				\$10 000
	1.2. Stakeholders and community consultations	\$20 000				\$20 000
	1.3. Develop site selection criteria for targeted communities and protection zones	\$ 5000				\$5000
	1.4. Select sites with community consultation and provision of equipment for set up of protection zones (boats and signage). Maintenance ongoing	\$15 000	\$10000	\$10 000		\$35,000
	<b>Sub-total</b>	<b>\$50000</b>	<b>\$10 000</b>	<b>\$10 000</b>	<b>\$0</b>	<b>\$70,000</b>
2. Development of transboundary fisheries monitoring protocol	2.1. Develop standardized survey methods for adoption in participating states	\$10 000				\$10 000
	2.2. Strengthen fisheries database in participating states	\$10 000	\$20 000			\$30 000
	2.3. Train communities and national level staff in the use of equipment and research methodologies	\$30 000	\$20 000	\$20 000		\$70 000

	<b>Sub-total</b>	<b>\$50 000</b>	<b>\$40 000</b>	<b>\$20,000</b>	<b>\$0</b>	<b>\$110,000</b>
3. Formation of community based fisheries management institutions (committees)	3.1. Conduct baseline studies	\$15 000				\$15 000
	3.2. Conduct community specific socio-economic evaluation	\$15 000	\$ 5000			\$20 000
	3.3. Hold meetings with communities to identify root causes to challenges and options for solutions	\$5 000	\$5 000	\$5 000		\$15 000
	3.4. Delineation of protection zones and nomination of committees	\$5 000	\$5 000			\$10 000
	3.5. Awareness raising and training	\$10 000	\$10 000	\$10 000		\$30 000
	<b>Sub-total</b>	<b>\$50 000</b>	<b>\$25,000</b>	<b>\$15000</b>	<b>\$0</b>	<b>\$90 000</b>
4. Develop and implement management plan and alternative income generation strategies	4.1. Develop and implement community specific management plans and alternative income sources	\$5 000	\$40 000	\$15,000		\$60 000
	4.2. Design and implement M&E framework	\$5 000				\$5 000
	4.3. Document lessons learned and disseminate			\$5000		\$5000
	<b>Sub-total</b>	<b>\$10 000</b>	<b>\$40 000</b>	<b>\$20 000</b>	<b>\$0</b>	<b>\$70 000</b>
5. Adaptive Management and Learning	5.1. Adaptive Management and Learning (part of M&E)	\$10 000	\$15 000	\$15 000		\$40 000
	5.2. Monitoring and Evaluation Plan provides inputs for robust adaptive management	\$15 000	\$5 000	\$10 000		\$30 000
	5.33. A clearly defined mechanism for replication of community based fisheries management approach	\$0	\$0	\$20 000		\$20 000
	<b>Sub-total</b>	<b>\$25 000</b>	<b>\$20 000</b>	<b>\$45 000</b>	<b>\$0</b>	<b>\$90 000</b>
	<b>Total</b>	<b>\$185,000</b>	<b>\$135,000</b>	<b>\$110,000</b>	<b>\$0</b>	<b>\$430,000</b>

## FISH ANNEX 1

### Project workplan

	<b>Outcome:</b> Transboundary fisheries management guidance developed for the Cubango-Okavango basin; community-based applications demonstrated to protect and enhance fish stocks in the basin;	<b>Objectively Verifiable Indicators</b>	<b>Sources of Verification</b>	<b>Assumptions and Risks</b>
<b>ACTIVITIES</b>	<b>1. Inception report and site selection</b> <ul style="list-style-type: none"> <li>▪ Conduct literature review</li> <li>▪ Community consultations</li> <li>▪ Develop site selection criteria for targeted communities and Fish protection zones Areas</li> <li>▪ Make selection of sites</li> </ul>	Literature Review, Project Plan and inception report drafted-PI Sites criteria defined and sites selected-PI	Literature Review, Project Plan and inception report Criteria and site selection reports	Appropriate sites selected, representative of each river fishery zone.
	<b>2. Development of transboundary fisheries monitoring protocol</b> <ul style="list-style-type: none"> <li>▪ Develop standardised survey methods and adopt in Namibia and Angola</li> <li>▪ Strengthen fisheries data base in Namibia and Angola (include data collected by communities)</li> <li>▪ Train communities and national level staff in the use of equipment and research methodologies</li> </ul>	Survey methods Monitoring tools Database  Socio-economic study drafted	Report on process of developing the method Survey reports Data sharing protocol Monitoring programme Research findings/reports	Namibia and Angola governments agree to common survey methods Willingness from the governments to invest in upkeep of data base Communities are motivated to participate in monitoring activities
	<b>3. Formation of community based fisheries management institutions (committees)</b> <ul style="list-style-type: none"> <li>▪ Identify appropriate skills needed for consultant socio-economic support and training for the project and MFMR</li> </ul>	Fisheries committees formed Fish protection zones areas Changes Trends in fish stocks demonstrated through	Fisheries committee meeting minutes Management plans Consultancy reports	Communities are motivated to participate in proposed conservation approach MFMR establishes socio-economic staffing capacity in Inland Fisheries Directorate of

<b>Outcome:</b> Transboundary fisheries management guidance developed for the Cubango-Okavango basin; community-based applications demonstrated to protect and enhance fish stocks in the basin;	<b>Objectively Verifiable Indicators</b>	<b>Sources of Verification</b>	<b>Assumptions and Risks</b>	
	to implement comprehensive CBNRM programme. <ul style="list-style-type: none"> <li>▪ Provide project support for consultant inputs to guide the CBNRM programme and provide appropriate staff training.</li> <li>▪ Conduct baseline surveys</li> <li>▪ Conduct community specific socio-economic evaluation</li> <li>▪ Hold meetings with communities to identify root causes to challenges and options for solutions</li> <li>▪</li> <li>▪ Delineate fisheries protection zones</li> <li>▪ Awareness raising and training</li> </ul>	standardized research and monitoring programmes		the Ministry to provide continued support for fishing community committees.
	<b>4. Develop and implement management plan and alternative income generation strategies</b> <ul style="list-style-type: none"> <li>▪ Identify and implement community specific management plans and alternative income sources</li> <li>▪ Design and implement M&amp;E framework</li> <li>▪ Document lessons learned and disseminate information</li> </ul>	Alternative income sources established Overall Management plan Existence of community fishing committees Community specific management plans	Community committee meeting minutes Monitoring reports on community activities Management plans, overall and community specific Income generated through community specific fisheries management and alternative income strategy activities	Some socio-economic benefits can be derived during project implementation
	<b>5. Adaptive Management and Learning</b> <ul style="list-style-type: none"> <li>▪ Adaptive Management and Learning</li> <li>▪ Monitoring &amp; Evaluation Plan provides inputs for robust adaptive learning</li> </ul>	Management Plan annual revision Community Management Plans	Monitoring and evaluation reports MFMR annual reports Angola	MFMR establishes a management/staff structure in the Directorate responsible for inland fisheries within which monitoring and evaluation are established and

<b>Outcome:</b> Transboundary fisheries management guidance developed for the Cubango-Okavango basin; community-based applications demonstrated to protect and enhance fish stocks in the basin;	<b>Objectively Verifiable Indicators</b>	<b>Sources of Verification</b>	<b>Assumptions and Risks</b>	
	<ul style="list-style-type: none"> <li>▪ A clearly defined mechanism for replication of community based fisheries management approach</li> </ul>			mandatory components of management planning and activities.

## FISH ANNEX 2

Output and Activities	Year 1				Year 2				Year 3			
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
<b>Output 1: Inception report and site selection</b>												
Activity 1.1: Conduct literature review												
Activity 1.2: Community consultations												
Activity 1.3: Develop site selection criteria for targeted communities and protection zones												
Activity 1.4: Select communities and protection zones												
<b>Output 2: Development of transboundary fisheries monitoring protocol</b>												
Activity 2.1: Develop standardized survey methods for adoption in Angola and Namibia												
Activity 2.2: Strengthen fisheries database in Namibia and Angola												
Activity 2.3: Train communities and national level staff in the use of equipment and research methodologies												
<b>Output 3: Formation of community based fisheries management institutions (committees)</b>												
Activity 3.1: Conduct baseline studies												

Output and Activities	Year 1				Year 2				Year 3			
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
Activity 3.2: Conduct community specific socio-economic evaluation												
Activity 3.3: Hold meetings with communities to identify root causes to challenges and options for solutions												
Activity 3.4: Delineation of protection zones and nomination of committees												
Activity 3.5: Awareness raising and training												
<b>Output 4: Develop and implement management plan and alternative income generation strategies</b>												
Activity 4.1: Develop and implement community specific management plans and alternative income sources												
Activity 4.2: Design and implement M&E framework												
Activity 4.3: Document lessons learned and disseminate												
<b>Output 5: Adaptive Management and Learning</b>												
Activity 5.1: Adaptive Management and Learning (part of M&E)												
Activity 5.2: Monitoring and Evaluation Plan provides inputs for robust adaptive management												
Activity 5.3: A clearly defined mechanism for replication of community based fisheries management approach												

## Demonstration Project 3: Enhancing climate change resilience through alternative agricultural practices

1. Country: Angola, Botswana

2. Title: Enhancing climate change resilience through alternative agricultural practices

3. Executing Agency: TBD

4. Cost of Project: GEF: US\$: US\$410,000 per demo; Co-Finance: TBD

### 5. Linkage to Cubango-Okavango River Basin SAP Priorities:

Central to the CORB SAP is improvement of the livelihood of the basin's people through the cooperative management of the basin and its shared natural resources. As such the objective of Thematic Area 1 of the SAP 'Livelihoods and Social Economic Development' is 'Sustaining key livelihood activities such as agriculture, livestock and fisheries and ensuring productivity improvements while reducing/mitigating environmental impacts of activities'. The SAP calls on a series of demonstration projects to trial different low-impact development strategies in each on the basin countries.

### 6. Linkage to National Priorities and Programmes

The predominant land use throughout the Cubango Okavango basin is subsistence agriculture with a few hectares being cropped and small numbers of cattle and goats being kept. Principal cropping areas are shown in Figure 4.1.

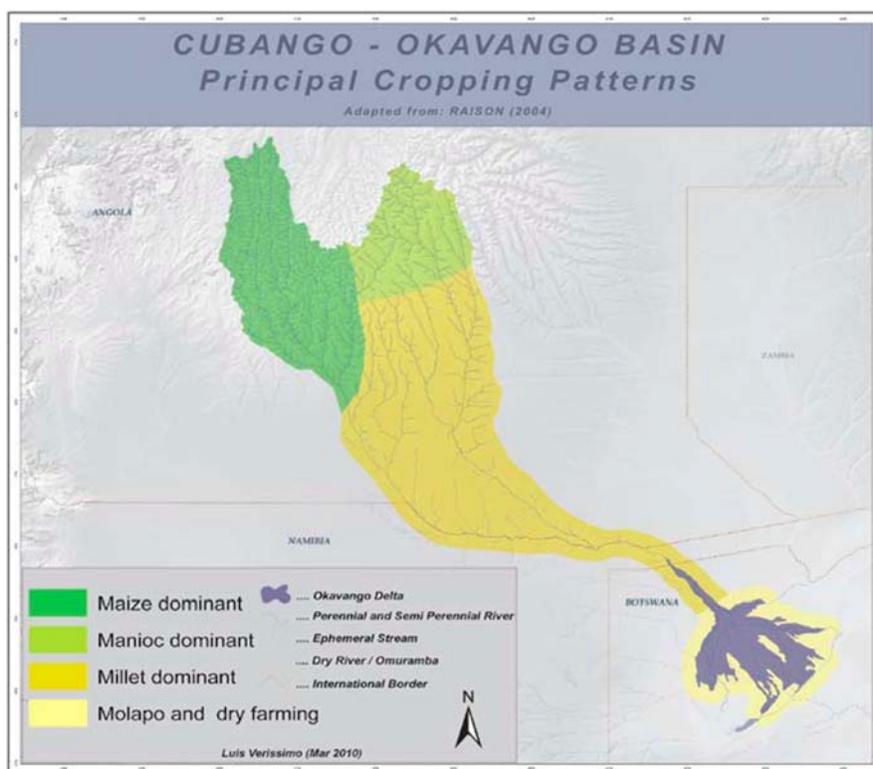


Figure 4.1: Principal cropping patterns

Crop productivity is generally very low, except in the northern parts of the basin where it is significantly higher. There are traditional forms of recessional agriculture used – the *molapo* system in Botswana and the *olonaka* system in Angola – This type of farming takes place close to rivers and streams and tends to be much more productive than dry land agriculture, since the fertility and moisture of the soils

is maintained by seasonal flooding of the land.

For most parts of the basin, subsistence agriculture is rain-fed with intense cultivation activity taking place just before the rains. Most farmers do not use agricultural chemicals or fertilizers, with very few using compost or organic manures.

The soils in parts of the basin are low in nutrients and easily exhausted by crop production. Most soils in the basin are quite coarse and so are not able to retain moisture and are low in nutrients, thus not conducive to crop production. In many parts of the CORB, repeated ploughing and crop production have resulted in soils of low nutrient content that may be subject to erosion as a result of vegetation clearing.

While the population density in the basin overall is relatively low in comparison with other major river basins, there are certain areas of the basin which have high population densities. The pressure of human activities on land use and vegetation cover is marked.

Despite the relatively low population densities in the CORB the changes in land use and vegetation cover has been marked. There is increased demand for land for crops along the length of the river from the Angolan highlands to the panhandle and with an increasing population this trend is expected to continue.

An analysis of projected climate change effects predicts a rise in temperature and rainfall in the basin. Higher temperatures (2.3 °C–3 °C) will affect the south of the basin more strongly than the north, increasing evaporation. There is a projected increase in rainfall of 0–20 percent across the Basin, with the greatest effect in the north because of the north-south rainfall gradient. In general, the projected increase in rainfall will likely compensate for higher evaporation rates. This could result in an increase in runoff (total and monthly) with proportionately stronger peak flows.

**7. Name of Government Authority endorsing the Demonstration** *In Angola the Ministry of Agriculture will endorse the project at the policy level and the Institute of Agricultural Development at the Operational level.*

## **8. Project Objectives and Activities**

The impact of land-use change in the basin may be more significant than that of direct increased water use and its control a more difficult challenge. This change includes clearing more land for agriculture as the population in the basin continues to grow.

The major constraints to crop production in the basin are similar to those in many dryland regions. These are limited access to water (away from the river), low soil fertility, insecure rainfall, low-productive genotypes, low adoption of improved soil and crop management practices, and lack of appropriate institutional support (Van Duivenboodew, 2000).

Climate change threatens production's stability and productivity. In many areas of the world where agricultural productivity is already low and the means of coping with adverse events are limited, climate change is expected to reduce productivity to even lower levels and make production more erratic (Stern Review 2006; Cline 2007; Fisher *et al.* 2002; IPCC 2007). Long term changes in the patterns of temperature and precipitation, that are part of climate change, are expected to shift production seasons, pest and disease patterns, and modify the set of feasible crops affecting production, prices, incomes and ultimately, livelihoods and lives. Drought/flood preparedness and risk mitigation are also essential for the proper management of the basin.

Poor cropping management practises are resulting in depletion of soil fertility, increased need for land and higher labour inputs. Cropping practises do not yield adequately for the amount of time and effort expended which results in the need for opening more fields, which also become depleted resulting in the need for more land.

Poverty is a feature of the human populations of the basin in all three countries. Poverty alleviation in

the basin is a major investment target for governments and the three countries have national poverty reduction strategies aimed at improving the welfare and living conditions of their populations through increased socio-economic growth and linked to the Millennium Development Goals (MDGs).

Preserving and enhancing food security requires agricultural production systems to change in the direction of higher productivity and also, essentially, lower output variability in the face of climate risk and risks of an agro-ecological and socio-economic nature. In order to stabilize output and income, production systems must become more resilient, i.e. more capable of performing well in the face of disruptive events. More productive and resilient agriculture requires transformations in the management of natural resources (e.g. land, water, soil nutrients, and genetic resources) and higher efficiency in the use of these resources and inputs for production. Transitioning to such systems could also generate significant mitigation benefits by increasing carbon sinks, as well as reducing emissions per unit of agricultural product.

Poorly considered policies and inadequate knowledge of best practice at the local level (i.e. government extension officers, village farmers) limit agriculture productivity at local level.

### **General Objectives**

The two overall outcomes of the GEF project component 2 are:

- Environmentally sound socioeconomic development demonstrated in the basin to allow the basin population to improve their socioeconomic status with minimum adverse impacts to and enhanced protection of the basin ecosystem.
- Replicable strategies to realise, replicate and upscale food security, inclusive growth, enhanced income generation, gender empowerment, climate change adaptation and resilience demonstrated

The integrated Flow Assessment studies showed that ecosystem services provided by the Cubango-Okavango to the basin communities are considerable and their value when compared with conventional water resource developments (irrigation, hydro-power) has been underestimated, particularly as a direct contribution to the socioeconomic status of the basin communities. This is recognised in the OKACOM SAP document there is a call to promote a range of livelihoods closely linked to basin's ecological services and food security. In response the GEF project, with guidance from the countries, has chosen four demonstration areas, linked to policy guidance documents, for demonstrating:

- A basin-wide transboundary tourism strategy developed and agreed and community based tourism demo established and tested.
- Strategies to mitigate human-wildlife conflicts caused by increased tourism developed and tested
- Transboundary fisheries management guidelines developed and tested at the community level to protect and enhance fish stocks.
- Community-based activities promoting food security and climate change adaptation and resilience.

The project will demonstrate low impact environmental development options where interest is not primarily the feasibility of the methods and techniques introduced, since in many cases their general suitability has already been proven, but rather the economic return of these 'alternative development pathway' options. It is hoped the demo projects will demonstrate more concretely the conclusion reached at the TDA stage that these options are more economic than other conventional higher impact basin development options, such as large irrigation developments, especially when benefits to the basin communities are taken into account.

### **Demo Objectives**

The objective of the demonstration project is to empower local communities to increase crop yields and improve resilience against climate change, while at the same time protecting and stimulating the biological functioning of the land (soil). The demonstration project will improve livelihoods of the

communities, enhancing food security from local production systems and investigating options for alternative income generation.

## **Output 1: Inception report and site selection**

### **Activity 1.1: Conduct literature review**

The literature review will cover a wide array of strategies to determine best practices in managing and increasing crop productivity of communities at local level. The review of projects will include best practices and international level but also review of lessons learnt from conservation agriculture as implemented in Namibia.

### **Activity 1.2: Develop overall project plan based on recommendations from stakeholders**

The project team, including select members of the Basin Wide Stakeholder Forum and National Stakeholder forum, will develop an overall project plan based on findings of the literature review. The plan will be refined with inputs from local specialists familiar with project implementation within communities, crop scientists, traditional leaders, farmers, and local authorities, and community organizations.

### **Activity 1.3: Develop site selection criteria for demonstration sites**

Sites will be nominated and selected based on the weighted criteria developed by the project team based on the literature and with inputs from stakeholders. It is anticipated that two communities will be selected. The criteria will likely consider the following:

- likelihood of success and input of community for sustainability
- potential for replication
- current resources availability to the community
- trends, challenges and conflicts existent in the area
- potential for training local population to train others in neighbouring communities
- inter-community tensions over resources, range land use and other issues
- ethnic make-up as relevant
- community leaders able and willing to accept responsibility for project implementation

### **Activity 1.4: Site selection**

Based on the criteria and available communities the project will make the selection of sites with inputs of project staff, experts, national focal points, and stakeholders. This will also take into account other crop management practices currently underway in the basin, and will work to compliment these efforts as appropriate. The selection process will involve nomination of candidate communities, through coordination with other development projects, project staff familiar with communities within the basin, and through the literature review. The candidate sites will be visited by the project staff and evaluated based on the criteria developed by the project team.

## **Output 2: Assessment of baseline and identification of land/resource management issues**

### **Activity 2.1: Conduct baseline studies**

With community leader and identified stakeholder participants within the community, the next step is to identify land management issues, major challenges, and potential solutions. Relying on assistance from community leaders and identified stakeholder participants within the community it will be important to conduct local studies that establish baseline conditions to include photographs, interviews with elderly who can clarify how changes have occurred, and with crop scientists, and to include impacts of climate variation, including tracing of recent meteorological trends over the past decades and closely monitoring conditions during project implementation.

### **Activity 2.2: Conduct a community specific socio-economic evaluation**

Concurrently with the assessment of baseline conduct community specific socio-economic evaluations. It will be critical to characterize the selected communities for variables which will be needed for future comparison and replication. These variables should include:

- The socio-economic importance of cropping to local, district, national, and basin wide levels
- The economic scenarios of impacts of current farming practices, and impacts of alternate scenarios using other approaches to include climate variation
- The shifts in gender roles, if any, as a result of demographic changes in the region
- Potential for alternate income sources within the community that may decrease the overall dependence on farming for economic sustenance.

Following the socio-economic evaluations, the project will draft community specific socio-economic reports to be presented in conjunction with community meetings emphasizing the range of strategies available based on the scenarios developed within the literature review and inception report.

### **Activity 2.3: Hold meeting with community to identify the root causes and options**

In order to decide how to best address and improve the conditions, the community will be asked to gather for a meeting of presentations to include the strategies garnered from the literature review, the overall plan, the summary findings of the baseline studies, and the results of the community specific socio-economic evaluation. With as many community stakeholders as possible, the meeting will select appropriate approaches to use within the specific community, based on the root causes and options available. Community feedback throughout the meeting will be critical to ensure support for the project and consensus building regarding management strategies to be employed in the area.

### **Activity 2.4: Awareness raising and training**

The project shall design and implement a programme of training and public awareness activities. In doing so the project will draw on the experience and materials of other international and national projects and encourage linkage and cooperation between projects.

## **Output 3: Formation of Lead Farmers groups and strengthening capacity of Local Authorities (LAs) and Traditional Authorities (TAs)**

### **Activity 3.1: Establish relationship with LAs/TAs and recruit Lead Farmers**

At the open community meeting the group will be asked to nominate members to become Lead Farmers to be trained as trainers of trainees, provide more in-depth information, and be most directly involved with the project implementation. The Lead Farmers will need to be closely related to the issues to be addressed and able to commit to time for meetings, training, assistance with monitoring and evaluations. The Lead Farmers may include, inter alia, community elders, herd boys, traditional healers and health care providers, farmers, teachers, and community leaders. These members should be representative of the community demographics and should be weighted for those who are most economically dependent on animal husbandry.

### **Activity 3.2: Train LAs/TAs and Lead Farmers**

Once recruited, the LAs/TAs and Lead Farmers will receive training on aspects of the project that will enable them to implement and enforce the agreements made by the community, such as conservation agriculture techniques, what to plant, when to plant and how to reduce erosion and what the boundaries of the governed area include. Additionally, they will receive more advanced training on principles of conservation agriculture, including issues of soil degradation, desertification, and flora and fauna identification, climatology, and basic ecology. Monitoring and evaluation strategies will also be introduced to the LA/TAs and Lead Farmers. In later parts of the project the LAs/TAs and Lead Farmers will receive "training of trainers" and curriculum implementation training to be shared with neighbouring communities.

## **Output 4: Develop management plan based on best practices, including M&E framework.**

### **Activity 4.1: Promote conservation agriculture as an adaptive measure for climate change**

Based on the inputs from the community meetings, and with the LA/TA and Lead Farmers trainings, the LA/TA and Lead Farmers and the project experts will develop a management plan (concept) on conservation agriculture based on best practices and governance principles outlined in the project objectives to be applied locally. The plan will need to conform to local traditional justice systems, as well as national laws and regulations and will need formal support of the agencies responsible for oversight of land management. The management plans will be presented to the entire participating community for comment and revision in order to insure acceptance and buy-in to the project.

Once the plan is endorsed by participating communities, application of the concept will be demonstrated for further replicability. This would involve training of the Lead Farmers, developing and testing of appropriate land cultivation methods that has minimum soil disturbance (zero or reduced tillage), investigation and piloting the use of alternative fertilisers, identification of crops and planting methods (crop rotation with legumes) and options for storage of the produce.

#### **Activity 4.2: Develop and implement alternative income sources**

The management plan will also explore options for alternative income sources for communities to reduce pressures brought about by cropping. Though land tenure patterns will be difficult to adjust, they will be addressed and where agreed, altered to enhance preservation of sensitive areas. The alternative income activities, which will need to stem from local understanding of the needs and capacities, will be supported. This may include, *inter alia*, introduction of small businesses such as community shops, cultivation of endemic foods and medicinal plants for sale in towns and abroad, crafts, and other enterprises.

#### **Activity 4.3: Design a M& E framework**

The Lead Farmers and project experts will develop a Monitoring and Evaluation strategy to periodically review the progress of the project and status of cropping areas and to make certain that the project is being implemented as agreed by the community. The M&E strategy will also review the implications of the alternative income source development, its impact on the communities and potential for sustainability following project completion. The M&E framework will be presented to the community to garner further support for the project, with clear delineation of the boundaries, protocols for modifying the agreed rules, role of graduated sanctions, conflict resolution mechanisms, and roles and responsibility of monitors.

#### **Output 5: Adaptive Management and Learning**

Based on the requirements of GEF demonstration projects the following activities will be included in the project implementation.

- Project implemented in a cost-effective manner in accordance with agreed work plans and budgets
- Monitoring and Evaluation Plan provides inputs for robust adaptive management
- A clearly defined mechanism for replication of conservation agriculture and alternate income programme to other comparable areas.

#### **9. End-of Project Landscape (Outputs) outcomes**

At the conclusion of the demonstration project the following will be available:

- A literature review of best practice in conservation agriculture strategies, which will inform additional projects in the region, as well as within the broader SADC and GEF portfolio of projects. This will include a set of criteria for site selection, and review of which strategies work most effectively in which conditions.
- The project will produce a baseline assessment of local conditions, including physiological and socio-economic factors, which will influence project implementation, and a baseline review of conditions. This baseline assessment can serve as a model for future projects, and for future reviews of local conditions.

- The design and implementation of the project at the local level, by the local stakeholders will provide a proven outline for community involvement and resource management projects, with development of alternative income sources to diversify local economies. The reliance on local understanding and knowledge, supplemented by experts as needed increases the sense of project ownership, while also increasing sustainability and over all knowledge base. Local stakeholders often are far more aware of local conditions and have much higher incentives to adapt, especially when that knowledge is harnessed and treated with the respect it deserves. This sets a precedent of increasing strategy effectiveness by building on local knowledge, which will benefit similar projects throughout the GEF portfolio. While GEF projects do not often focus on economic development, the poverty reduction emphasis within the alternative income sources of this project sets a precedent that shifts dependence from unsustainable practices to more sustainable practices that also respect local traditions, needs and insights into their own conditions.
- Through close monitoring and evaluation with regular adjustments as needed the demonstration projects strengthen the understanding of what is needed to successfully implement conservation agriculture, and what the impacts on the ecology are as a result of those actions. Because these strategies will be locally and legally legitimate within the contexts of existing traditions and regulations, it is assumed that they will be sustainable within the communities, and because Lead Farmers have been trained as trainers, additional projects are expected to emerge.

The outcomes for the communities will be:

- Improved crop yields
- Increased resilience against climate change
- Increased empowerment of local communities to address the challenges of land degradation based on indigenous knowledge and documentation of this knowledge for future generations
- Improved soil conditions, stimulating the biological functioning of the soil
- Increased economic independence for local community groups with sustainable incomes.

## **10. Project Management Structure and Accountability**

The project will be contracted under international tender procedures. There will be an open invitation for expressions of interest and a short-list of tenderers will be assembled in consultation with OKACOM. The GEF Project Coordination Unit based in the OKACOM secretariat will oversee the project execution. A demonstration Project Implementation Unit (PIU) will be established with satellite offices in each country. The PIU will report to the GEF project manager and the national project coordinators who in turn will report to the National Focal Points. The demonstration project through the PCU shall report regularly to the Project Board.

## **11. Stakeholders and Beneficiaries:**

The stakeholders involved in this project, and the beneficiaries include local rural communities within the region, traditional leaders, crop and soil scientists, and local authorities, community organizations, government extension services, government ministries of environment, agriculture, water and lands.

## **12. Long-term Sustainability Strategy**

The long-term sustainability for this project is built into the project design by the implementing community designing the project based on their own immediate priorities rather those of the donor. Impacted and impacting stakeholders will identify their priority problems, the root causes and will be presented with a community specific socio-economic analysis to help them understand the challenges they face. They are asked to develop management solutions based on common land management principles and then taught how to implement these themselves. The monitoring and evaluation component will demonstrate project effectiveness, and should provide stakeholders with clear incentives to continue to implement the project.

## **13. Replicability**

The project includes a literature review and investigation of socio economic and physiological conditions that impact project strategy and implementation. The array of options that will be presented to the communities on conservation agriculture can be used with other similar projects and the methodology employed here will be further refined with the intention of being applied elsewhere. The training of trainers component will also enable the lessons learned here to be spread to neighbouring communities by local stakeholders. The final report of the project will include lessons learned and recommendations for additional replication in other communities.

#### **14. Monitoring and Evaluation Process**

The Project Management Unit will produce a brief quarterly Progress Report updating the Steering Committee and the project Execution and Implementation Agencies on the progress of the demo project based on the approved Logical Framework Matrix (CA Annex 1) and the project work plan (CA Annex 2). Once every year a detailed report will be submitted through the Steering Committee to the Executing Agencies. This report will provide a full review of the work plan to identify project achievements and deliveries versus the approved schedule, budget expenditures, recommendations with respect to any amendments to work plan and budget, staff contracting and performance, and any other information required by the Project Board and/or the Executing Agencies.

In addition to this, the demo project strategy and objectives, intended outputs, implementation structure, work plans and emerging issues will be regularly reviewed and evaluated annually by the Project Steering Committee. Periodic Status Reports will be prepared at the request of the Steering Committee for presentation at key meetings associated with the Project.

The demo project will also be subject to:

- Internal Project Implementation Reviews to be conducted by the Project Manager and submitted to the implementing agency every six months.
- An independent final project evaluation to be undertaken in conjunction with the Terminal Evaluation for the FSP.

The project evaluations will be carried out in accordance with UNDP-GEF requirements and will cover all aspects of the project. They will include: an assessment of (a) the outcomes generated, (b) the processes used to generate them, (c) project impacts, and d) lessons learned. Advice will be given on how the M&E results can be used to adjust the work if needed and on how to replicate the results in the region.

## 15. Funding

The GEF will finance costs related to capacity building and demonstration of conservation agriculture. The total contribution requested from GEF is USD410,000 within a three-year period (see CA Annex 2 for details).

TOTAL PROJECT WORKPLAN AND BUDGET						
Project Title: Enhancing climate change resilience through alternative agricultural practices						
Component	Indicative Activities	Amount (\$) Year 1	Amount (\$) Year 2	Amount (\$) Year 3	Amount (\$) Year 4	Total (\$) All Years
1. Inception report and site selection	1.1. Conduct literature review	10,000				10,000
	1.2. Stakeholders and community consultations	20,000				20,000
	1.3. Develop site selection criteria for targeted communities	1,500				1,500
	1.4. Select sites	1,500				1,500
	<b>Sub-total</b>	<b>33,000</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>33,000</b>
2. Assessment of baseline and identification of land/resource management issues	2.1. Conduct baseline studies	10,000	2,500	2,500		15,000
	2.2. Conduct community specific socio-economic evaluation	10,000	20,000	5,000		35,000
	2.3. Hold meetings with communities to identify root causes to challenges and options for solutions	5,000	5,000	5,000		15,000
	2.4. Awareness raising and training	10,000	10,000	10,000	0	30,000
	<b>Sub-total</b>	<b>35,000</b>	<b>37,500</b>	<b>22,500</b>	<b>0</b>	<b>95,000</b>
3. Formation of Lead Farmers groups and strengthening capacity of Local Authorities (LAs) and Traditional Authorities (TAs)	3.1. Establish relationship with LAs/TAs and recruit Lead Farmers	30,000	0	0		30,000
	3.2. Train Las/TAs and Lead Farmers	15,000	7,500	7,500		30,000
	<b>Sub-total</b>	<b>45,000</b>	<b>7,500</b>	<b>7,500</b>		<b>60,000</b>
4. Develop management plan based on best practices, including M&E framework	4.1. Promote conservation agriculture as an adaptive measure for climate change	15,000	35,000	25,000		75,000
	4.2. Develop and implement alternative income sources	15,000	25,000	25,000		65,000

	4.3. Design a M&E framework	5,000	1,500	1,500		8,000
	<b>Sub-total</b>	<b>35,000</b>	<b>61,500</b>	<b>51,500</b>	<b>0</b>	<b>148,000</b>
5. Adaptive Management and Learning	5.1. Adaptive Management and Learning (part of M&E)	1,500	10,000	10,000	0	21,500
	5.2. Monitoring and Evaluation Plan provides inputs for robust adaptive management	2,500	15,000	15,000	0	32,500
	5.3. Dissemination of lessons learnt	5,000	7,500	7,500	0	20,000
	<b>Sub-total</b>	<b>9,000</b>	<b>32,500</b>	<b>32,500</b>		<b>74,000</b>
	<b>TOTAL</b>	<b>157,000</b>	<b>139,000</b>	<b>114,000</b>		<b>410,000</b>

CA ANNEX 1

<b>Outcome:</b> Enhancing climate change resilience through alternative agricultural practices		<b>Objectively Verifiable Indicators</b>	<b>Sources of Verification</b>	<b>Assumptions and Risks</b>
<b>ACTIVITIES</b>	<b>1. Inception report and site selection</b> <ul style="list-style-type: none"> <li>▪ Conduct literature review</li> <li>▪ Community consultations</li> <li>▪ Develop site selection criteria for targeted communities and protection zones</li> <li>▪ Make selection of sites</li> </ul>	Project Plan and inception report drafted-PI Sites criteria defined and site selected-PI	Project Plan and inception report Criteria and site selection report	Appropriate sites selected
	<b>2. Assessment of baseline and identification of land/resource management issues</b> <ul style="list-style-type: none"> <li>▪ Conduct baseline studies</li> <li>▪ Conduct community specific socio-economic evaluation</li> <li>▪ Hold meetings with communities to identify root causes to challenges and options for solutions</li> <li>▪ Awareness raising and training</li> </ul>	Survey methods and tools	Baseline report Reports from community meetings	
	<b>3. Formation of Lead Farmers groups and strengthening capacity of local authorities and traditional authorities</b> <ul style="list-style-type: none"> <li>▪ Establish relationship with LAs/TAs and recruit Lead Farmers</li> <li>▪ Train LAs/TAs and Lead Farmers</li> </ul>	Lead Farmers identified to support implementation of conservation agriculture	Names of Lead Farmers, participating TAs and LAs Training reports	Government ready to support innovative approaches
	<b>4. Develop and implement management plan based on best practices, including M&amp;E framework</b> <ul style="list-style-type: none"> <li>▪ Promote conservation agriculture as an adaptive measure for climate change</li> <li>▪ Develop and implement alternative income sources</li> <li>▪ Design a M&amp;E framework</li> </ul>	Increased crop yields Improved soil quality (fertility) Improved access to food Income generated	M&E reports	Lead farmers remain interested to train other farmers Alternative income options identified yield income during project implementation
	<ul style="list-style-type: none"> <li>▪ Adaptive Management and Learning</li> <li>▪ Monitoring &amp; Evaluation Plan provides inputs for robust adaptive learning</li> <li>▪ Dissemination of lessons learnt</li> </ul>	Lessons learnt and best practices documented	M&E reports Project publications	Baseline data reliable

CA ANNEX 2

Project workplan

Output and Activities	Year 1				Year 2				Year 3			
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
<b>Output 1: Inception report and site selection</b>												
▪ Activity 1.1: Conduct literature review												
▪ Activity 1.2: Community consultations												
▪ Activity 1.3: Develop site selection criteria for targeted communities												
▪ Activity 1.4: Select communities for demonstration activities												
<b>Output 2: Assessment of baseline and identification of land management issues</b>												
▪ Activity 2.1: Conduct baseline studies												
▪ Activity 2.2: Conduct community specific socio-economic evaluation												
▪ Activity 2.3: Hold meetings with communities to identify root causes to challenges and options for solutions												
▪ Activity 2.4: Awareness raising and training												
<b>Output 3: Formation of Lead Farmers groups and strengthening capacity of local authorities (LAs)/ traditional authorities (TAs)</b>												
▪ Activity 3.1: Establish relationship with LAs/TAs and recruit Lead Farmers												
▪ Activity 3.2: Train LAs/TAs and Lead Farmers												

Output and Activities	Year 1				Year 2				Year 3			
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
<b>Output 4: Develop management plan based on best practices, including M&amp;E framework</b>												
▪ Activity 4.1: Promote conservation agriculture as an adaptive measure for climate change												
▪ Activity 4.2: Develop and implement alternative income sources												
▪ Activity 4.3: Design a M&E framework												
<b>Output 5: Adaptive Management and Learning</b>												
▪ Activity 5.1: Adaptive Management and Learning (part of M&E)												
▪ Activity 5.2: Monitoring and Evaluation Plan provides inputs for robust adaptive management												
▪ Activity 5.3: Disseminate lessons learnt and best practices												

## ANNEX 1-1: Relevant Initiatives/Projects and Policies to Each SAP Demonstration Project

SAP demonstration projects supported by UNDP-GEF	Ongoing/Recent baseline initiatives and projects financed by national governments and partners	Most relevant existing policy framework
<p><b>Common to all community-based demonstrations</b></p>	<p>In each of the basin country, there are cross-sectoral bodies that assist with the implementation of activities in a coordinated manner at local level as listed below. They will be fully utilized throughout the project implementation.</p> <ul style="list-style-type: none"> <li>- <b>Angola:</b> Reference Group (formally established by the Governor of the Cuando-Cubango Province)</li> <li>- <b>Botswana:</b> Okavango Wetlands Management Committee, established to oversee the implementation of the Integrated Management Plan for the Okavango Delta</li> <li>- <b>Namibia:</b> Okavango Basin Management Committee, formally established under the Water Act to facilitate multi-stakeholder coordination in the management of the Namibian portion of the basin.</li> </ul> <p>Also, it is important to note that during the NAP development in each country, key national and sectoral strategies and development plans relevant to the sustainable utilization and management of resources in CORB were all consulted. They guided the national multi-sectoral consultative process, which led to the identification of priorities presented in each NAP</p>	<p><u>Angola:</u></p> <ul style="list-style-type: none"> <li>- CORB NAP for Angola (cabinet approved)</li> <li>- Plano Geral de Utilizaliz Integrada dos Recursos Hidricos da Bacia do Cubango(General Plan for the Integrated Utilization of the Water Resources of the Cubango River Basin) (PGUIRH)</li> </ul> <p><u>Botswana:</u></p> <ul style="list-style-type: none"> <li>- CORB NAP for Botswana (cabinet approved)</li> <li>- Community Based Natural Resources Management Policy (2007),</li> <li>- Ngamiland Integrated Land Use Plan 2007</li> <li>- Okavango Delta Management Plan 2006</li> <li>- National IWRM Plan</li> </ul> <p><u>Namibia:</u></p> <ul style="list-style-type: none"> <li>- CORB NAP for Namibia (validated nationally)</li> <li>- The Regional Land Use Plan for Kavango Region</li> <li>- National IWRM Plan</li> <li>-</li> </ul>
<p><b>Transboundary demonstration project(s) on sustainable tourism through joint ventures</b></p>	<p>In Botswana and Namibia there is a strong move towards inclusive tourism, in this regard the pilot aims to contribute to this ideal. The Regional Land Use Plan for Kavango Region (Namibia) guides overall land use disposition for the basin in Namibia including tourism development and agricultural development, hence the projects will contribute to the realization of the objectives of the plan. Botswana and Namibia have both developed and approved National IWRM Plans</p>	<p><u>Angola:</u></p> <ul style="list-style-type: none"> <li>- CORB NAP for Angola (cabinet approved)</li> <li>- Plano Geral de Utilizaliz Integrada dos Recursos Hidricos da Bacia do Cubango(General Plan for the Integrated Utilization of the Water Resources of the Cubango River Basin) (PGUIRH)</li> </ul>

<p><b>between up-stream and delta tourism operators and development and implementation of knowledge transfer as part of basin tourism strategy (SAP TA1 1.3.2)</b></p>	<p>Kavango-Zambezi Transfrontier Conservation Area (KAZA)</p> <p>The transfrontier conservation area (TFCA) covers an area of 444,000 km<sup>2</sup> where the five partner countries converge (Angola, Botswana, Namibia, Zambia and Zimbabwe). The TFCA includes 17 national parks as well as wildlife management areas and hunting blocks. The core driver that is to generate the resources needed to meet the objectives is tourism development. A common strategy is sought, which will include strategies to attract tourists to stay longer in the region, combining visits to different countries and sampling different kinds of tourism products. The tourism demonstration project will contribute to this noble initiative.</p>	<ul style="list-style-type: none"> <li>- Reference Group (formally established by the Governor of the Cuando-Cubango Province)</li> </ul> <p><u>Botswana:</u></p> <ul style="list-style-type: none"> <li>- CORB NAP for Botswana (cabinet approved)</li> <li>- Community Based Natural Resources Management Policy (2007),</li> <li>- Ngamiland Tourism Plan (2007),</li> <li>- Ngamiland Integrated Land Use Plan 2007</li> <li>- Okavango Delta Management Plan 2006</li> <li>- National IWRM Plan</li> <li>- Okavango Wetlands Management Committee, established to oversee the implementation of the Integrated Management Plan for the Okavango Delta</li> </ul> <p><u>Namibia:</u></p> <ul style="list-style-type: none"> <li>- CORB NAP for Namibia (validated nationally)</li> <li>- The Regional Land Use Plan for Kavango Region</li> <li>- National IWRM Plan</li> <li>- Okavango Basin Management Committee, formally established under the Water Act to facilitate multi-stakeholder coordination in the management of the Namibian portion of the basin.</li> </ul>
<p><b>Sustainable fisheries demonstration projects promoting the establishment of transboundary fisheries common management rules</b></p>	<p>With support from USAID-funded SAREP project, Transboundary Fisheries Management Plan for CORB was developed. Sustainable fisheries demonstration project will assist in the implementation of this basin-wide plan at community level. The goal of the Plan is to promote responsible co-management of shared fish stocks. This will require securing information on the yield and harvesting patterns used by subsistence and commercial fisheries, biological and biodiversity data of fish populations, and institutional linkages between scientists in Angola, Namibia, and Botswana. The Plan sets up mechanisms to secure buy-in from all sectors for cooperation in management of fishery resources. More attention is needed on prohibited fishing gears; intentional or unintentional</p>	<p><u>At SADC level:</u></p> <ul style="list-style-type: none"> <li>- SADC Protocol on Fisheries</li> </ul> <p><u>At CORB level:</u></p> <ul style="list-style-type: none"> <li>- Transboundary Fisheries Management Plan for the CORB (2014).</li> </ul>

<p><b>and community based applications (SAP TA1 5.1.1, 5.2.1 and 5.4).</b></p>	<p>introduction of exotic or alien fish species; closed seasons; transboundary agreement on gillnets, particularly between Namibia and Angola; fishing license regulations; fishing councils as forums for government agencies to interact with fishers; mesh size regulations; and reserves or protected areas. To realize community-led management, communities need to be trained and fully informed of fisheries issues, from basic fish biology to regulations. This will entail environmental education for all residents, from school children to elders.</p>	<p><u>Angola:</u></p> <ul style="list-style-type: none"> <li>- CORB NAP for Angola (cabinet approved)</li> <li>- Inland fisheries are regulated through the Aquatic Biological Resources Act, i.e., —Regulamento Geral da Pesca, Decreto No 41/05.</li> </ul> <p><u>Botswana:</u></p> <ul style="list-style-type: none"> <li>- CORB NAP for Botswana (cabinet approved)</li> <li>- Fish Protection Act (Act 42 of 1975)</li> <li>- Fish Protection Regulations (2008).</li> </ul> <p><u>Namibia:</u></p> <ul style="list-style-type: none"> <li>- CORB NAP for Namibia (validated nationally)</li> <li>- Kavango River fisheries are managed through the Inland Fisheries Resources Act of 2003 and associated regulations.</li> </ul>
<p><b>Community-based SAP demonstration projects aiming to improve food security and climate change adaptation and resilience (SAP TA3 3.2.1).</b></p>	<p>Conservation agriculture (CA) is important as a livelihood strategy because it improves and sustains productivity, increasing profits and food security, while preserving and enhancing the resource base and the environment. It is an approach that is intended both to improve livelihoods and to reduce the practice of shifting agriculture which has detrimental environmental impacts on the catchment. CA is characterized by three linked principles, namely continuous minimum mechanical soil disturbance, permanent organic soil cover and diversification of crop species grown in sequences and/or associations.</p> <p>Various CA models have been piloted to date, including a methodology called Namibia-specific Conservation Agriculture (NSCA). This has had very positive results and offers significant opportunities for upscaling.</p> <p>In Angola, CA has already been successfully proven in 5 community clusters in the basin (Caiundo, Calai, Savate, Calai and Mucusso) by ACADIR (local NGO). In each cluster, an</p>	<p>Various Agricultural related legislations and plans in all the OKACOM Member States</p> <p><u>Angola:</u></p> <ul style="list-style-type: none"> <li>- CORB NAP for Angola (cabinet approved)</li> <li>- Plano Geral de Utilizaliz Integrada dos Recursos Hidricos da Bacia do Cubango (General Plan for the Integrated Utilization of the Water Resources of the Cubango River Basin) (PGUIRH)</li> </ul> <p><u>Botswana:</u></p> <ul style="list-style-type: none"> <li>- CORB NAP for Botswana (cabinet approved)</li> <li>- National Agricultural Master Plan for Arable Agriculture and Dairy Development (NAMPAADD)</li> </ul>

	<p>Extension Facilitator (EF) was identified and trained, together with 5 other community members. “Master Farmers” were then identified to work directly with the EFs to implement CA principles. Master Farmers have subsequently trained many farmers in each of the communities with the oversight of the EFs in each of the clusters.</p> <p>The USAID SAREP interventions mobilized local institutions especially extension services departments within the ministry of Agriculture to mainstream Conservation Agriculture into its extension service programmes. The Member States have commenced the uptake of Conservation Agriculture into their programmes. The UNDP-GEF support will build on these efforts.</p> <p>In order to improve livelihoods and protect the catchment, it is important that CA become the norm for small-scale agriculture in the upper basin. CA therefore has to move from being a NGO-based intervention to a national programme, with a government-backed extension and training network.</p> <p>What other CA pilots haven’t focused is to influence policy dialogue to mainstream CA. They remained as community-based pilots. UNDP-GEF support will build upon the past successes from CA pilots in different part of the basin and demonstrate at a larger scale with strong emphasis on monitoring to collect both socio-economic and environmental data.</p> <p>One significant contribution the UNDP-GEF project aims to make is to catalyze evidence-based policy reforms required for CA mainstreaming. Solid evidence (data) is required to prove how effective CA is as livelihood options for basin communities to improve selected socio-economic indicators, not just tracking environmental and ecosystem indicators. With an aim to convince policy makers at the central government to carry out necessary policy reforms, the demonstration will generate data to show CA mainstreaming as a viable and competitive alternative to more traditional large-scale agricultural development activities, especially when potential losses of ecosystem services are included in calculation.</p>	<p><u>Namibia:</u></p> <ul style="list-style-type: none"> <li>- CORB NAP for Namibia (validated nationally)</li> <li>- Green Scheme (promoting a large-scale agriculture development)</li> </ul>
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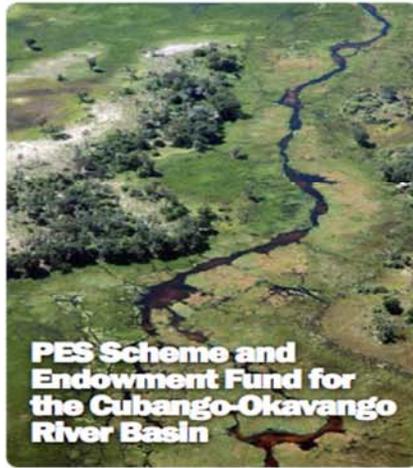
Also see the following relevant documents attached as separate files:

**ANNEX 1-2: Okavango River Basin Vulnerability Assessment (August 2013)**

**ANNEX 1-3: Transboundary Fisheries Management Plan for the CORB (July 2013)**

**ANNEX 1-4: OKACOM Gender Strategy (April 2015)**

## ANNEX 2: PAYMENT FOR ECOSYSTEM SERVICES CONCEPT PAPER



The Cubango-Okavango River is among the most intact rivers in the world. It is under threat from human development and the impacts of climate change.

A PES approach for the Cubango-Okavango River Basin will aid in bringing together communities across boundaries, between those in Angola, Botswana, and Namibia that rely on the river for its provision of freshwater, sustenance, and income opportunities. Working collaboratively in this approach, local communities, government ministries and the private sector can tackle these threats and protect the river basin for the future.



Contact for more information: Ibenizano Chonguca, Executive Secretary  
OKACOM Secretariat, eben@okacom.org Tel: +267 680 0023

### What is PES?

Payments for Ecosystem Services (PES) are financial incentives given to landowners or land stewards for ensuring ecosystem service such as protection and regulation against floods, erosion and siltation, maintenance of water quality and supply, and provision of viable fish stocks. Such an agreement gives landowners an opportunity to increase their income and improve their livelihood, while seeing that an important environmental resource is restored or conserved. In the Cubango-Okavango region, a PES approach will fund improved land management activities that in turn, will rehabilitate degraded areas, maintain the flow of fresh water downstream, and preserve the natural and cultural beauty of the Okavango – benefiting local communities and supporting a thriving tourism industry.



### Some key principles

1. Ecosystem services like providing adequate and clean water or safeguarding habitats for biodiversity are exchanged for an incentive such as direct payments or technical support.
2. The beneficiaries (individuals, communities, businesses or governments) from the ecosystem services provide the incentive.
3. The providers of ecosystem services must receive tangible benefits for the implementation of specific relevant activities.
4. Payments are made only for additional activities beyond what the steward of the land would normally undertake.
5. Payment must be directly related to a measurable improvement in the delivery of the service.
6. Payments can be made through an intermediary and should be done in a transparent and mutually agreed upon way.
7. PES agreements are voluntary.



### Goals and objectives

**Goal:** To convert the bio-capital of the Cubango-Okavango River Basin into a business model that expands the scope of opportunities to improve the livelihoods of the basin's population and maintains the flow of benefits and ecosystem services, whilst ensuring the integrity of the basin's ecosystem is secured.

#### Specific Objectives:

##### Ecological

- Maintain water flow and water quality
- Promote sustainable ecosystem management
- Improve the resilience of the basin to climate change

##### Social

- Optimise benefits flow across the basin
- Promote pro-poor benefits
- Improve and diversify livelihoods

##### Economic

- Provide economic incentives to foster more efficient and sustainable use of ecosystem services
- Provide sustainable funding streams that can be used to enhance sustainable development within the basin
- Establish an endowment fund to sustainably manage the natural capital and attract additional investment

##### Institutional

- Support implementation of the Strategic Action Plan (SAP) and National Action Plans (NAPs) for the basin
- Improve the management of protected areas and monitoring where required

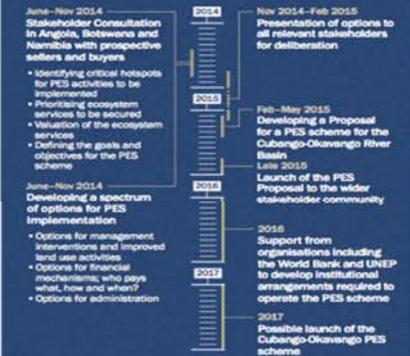
### Benefits

A PES approach in the region will create incentives for local communities to conserve and improve resource management, with the potential for:

- Secure livelihoods, by ensuring the delivery of critical ecosystem services throughout the basin and safeguarding both the environment and the people who rely on the river for economic opportunity;
- Achieve a thriving tourism industry, by safeguarding wildlife and fish populations that support safari travel, one of the key economic activities in the region; and
- Ensuring ecological sustainability, thus increasing resilience to climate change and reducing threats from development.



### Setting up a PES for the Cubango-Okavango



## **ANNEX 2-1: Proposal for the CORB Sedimentation Study**

See attached.

## **ANNEX 3: TERMS OF REFERENCE**

### **Project Manager**

The Project Manager (PM) will be responsible for ensuring the overall coordination and implementation of the UNDP-GEF project: 'Support to the Cubango-Okavango River basin Strategic Action Programme Implementation. The will report to and work in close collaboration with the Programme Coordinator of OKACOM (Implementing Partner) and UNDP Programme Officer in Botswana to ensure efficient and effective day-to-day management and monitoring of the project.

### **Technical and managerial responsibilities:**

- Management of the Programme Management Unit based in Maun
- Ensure and maintain linkages between the implementation management structures
- Evaluate the performance of the project staff
- Represent the Project in meetings and conferences to which the Project is invited to attend
- Prepare annual work plans and budgets for the Project
- Prepare quarterly, annual, mid-term and terminal project progress reports including technical, and policy matters, for the consideration of the national PSC, UNDPGEF, UNDP COs
- Provide professional guidance to partner institutions on overall project implementation and coordination with the SAP
- Ensure and maintain linkages between the implementation management structures
- Draft ToR and supervise inputs of short/ long-term consultants and ensure proper delivery of all outputs under implementation
- Provide overall project technical advice and direct in coordination with OKACOM Programme Coordinator.

The PM will have the ability to think strategically and laterally and maintain a broad perspective. The NPC will have the ability to work effectively under pressure and manage work and resources within tight deadlines. The PM will possess excellent communication skills including the ability to write lucidly and succinctly.

### **Qualifications and Experience:**

- A minimum of 10 years of technical and managerial experience dealing with applied natural resources management issues.
- A minimum of a MSC degree, or equivalent, in Water Resource Management or Environmental/Biological Sciences or related disciplines
- Demonstrable experience in project coordination in the environment field including prior experience of coordinating multi-disciplinary projects.
- Familiarity with the goals and procedures of international organizations, in particular those of the GEF and UNDP and regional organizations related to Project
- Previous work experience in one or more of the participating countries.
- Good command of English, both written and spoken.
- Knowledge of Portuguese would be an advantage

## **Scientific Officer**

The Scientific officer shall act as Deputy Project Coordinator and shall assist the Project Manager in the overall coordination of all aspects of the UNDP-GEF project. He/she shall assume the responsibilities of the Project Manager in their absence including communications with the Implementing Partner through the programme Coordinator and UNDP CO. The Scientific Officer will have the general responsibility for ensuring the Project's high quality technical output.

### **Specific Technical and managerial responsibilities:**

- Assist the Project Manager in preparation of the Annual Work Plan of the Project on the basis of the Project Document and inception report;
- Assist the Project Manager in preparation of quarterly, annual, mid-term and terminal project progress reports, particularly the technical aspects, for the consideration of the national PSC, UNDPGEF, UNDP COs
- Ensure close collaboration with the major technical partners (SIDA, USAID, WB, DfID).
- Oversee development of the Decision Support System, Information Management System and BDMF in consultation with the Programme Coordinator;
- Assist with preparation of Terms of Reference for Consultants and Contractors; and
- Represent the Project at technical meetings within the region and globally, as required.

### **Qualifications:**

- Post-graduate degree in Water Resource planning or a directly related field;
- A good background in Information Technology;
- At least fifteen years' experience in fields related to the assignment;
- Demonstrated management and team building skills;
- Familiarity with the goals and procedures of international organizations, in particular those of the GEF and UNDP and regional organizations related to Project;
- Fluency in English, both speaking and writing;
- Knowledge of Portuguese would be an advantage; and
- Previous work experience in one or more of the participating countries.

## **Demonstration Project Coordinator**

The demonstration project coordinator will have the day-to-day management responsibility for implementation of the demo project in the three participating countries. Based in a satellite office in Rundu and assisted by part-time administrative staff, he/she will be held primary responsible by the project manager for the overall delivery of the Outcome 3 (livelihood demos) by overseeing the implementation of the demo projects and monitoring performance of the sub-contracts. The PP coordinator will be assisted by national demo project officers in each of the participating states and will report directly to the Project Manager.

### **Specific responsibilities**

The specific responsibilities of the PP Coordinator will be to:

- Support the Project Coordinator in finalising the demo project documents and assist in preparation of the contract documents;
- Oversee evaluation of evaluation and award of demo project contracts with assistance of the Financial and Administrative officer;
- Assist in the design of the M&E framework for each demo and ensure full implementation;
- Prepare, three and six-monthly reports on demo project implementation;
- Ensure and maintain linkages between the district authorities through regular district meetings;
- Ensure coordination with partner organisations (USAID, CREDEF, UNEP) to ensure maximum project synergy and minimum overlap; and
- Disseminate results nationally and regionally at key project milestones.

**Qualifications**

The Demonstration Project Coordinator should possess the following qualifications:

- A degree in Natural Resource management or related discipline, post-graduate degree preferably.
- At least five years' experience working in rural development and natural resource projects in Southern Africa.
- Experience of working in one or more of the participating countries.
- Management experience of working in multi-disciplinary projects for international aid organisations, in particular UNDP and UNDP-GEF projects
- Good knowledge of English (written and spoken) and Portuguese.

**Information, Communication and Knowledge Management Expert (bilingual)**

To be added

## **Finance & Administration Officer**

The project financial and administration Manager is responsible for all financial and administrative functions of the project and shall report to OKACOM Financial and Management Officer and the UNDP Botswana CO Project Assurance Officer. The FA Officer shall ensure that the project is implemented in accordance with UNDP financial procedures and systems and is in line with UNDP administrative requirements.

### **Specific Financial and Administrative responsibilities:**

- Prepare monthly financial reports to be submitted to the Financial Manager using Pastel Accounting System, including donor reconciliations and monthly returns to tax authorities submitted as required and UNDP Atlas system;
- Administer payroll and payments to creditors and checking of documentation;
- Banking and reconciliation of bank accounts
- Monitoring the use of petty cash
- Travel cost preparation for staff and stakeholders
- Reconciliation of disbursements from donors
- Facilitating procurement (checking quotations, etc.)
- Set up and maintain project files;
- Assist the project manager in updating project plans;
- Administer Project Board meetings;
- Administer project revision control;
- Establish document control procedures; and
- Compile, copy and distribute all project reports.

### **Qualifications:**

The Finance & administration Officer Manager should possess the following qualifications:

- Professional qualification in Finance, Accounting and/or Business Administration, or equivalent combination of education, training and experience.
- At least five years progressive experience in accounting or financial work, including computerized financial/accounting systems.
- Staff supervision experience including ability to motivate and coach staff, monitor , evaluate and report on individual performance
- Good knowledge of written and spoken English

## **Project Board**

The Project Board will have the following overall responsibilities

- Provide overall guidance and direction to the project, ensuring it remains within any specified constraints;
- Address project issues as raised by the Project Manager and Programme Coordinator;
- Provide guidance on project risks and agree on possible countermeasures and management actions to address specific risks;
- Review the project progress and provide direction and recommendations to ensure that the agreed deliverables are produced satisfactorily according to plans;
- Review combined delivery reports prior to certification by the implementing partner;
- Appraise the project annual review report and make recommendations for the next annual work plan ; and
- Assess and decide to proceed on project changes through appropriate revisions.

## **UNDP Project Assurance Officer**

The UNDP Project assurance Officer shall have the following responsibilities:

- Ensure that funds are made available to the project;
- Ensure the project is making progress towards intended outputs;
- Perform regular monitoring activities, such as periodic monitoring visits and “spot checks”;
- Ensure that resources entrusted to UNDP are utilized appropriately;
- Ensure that critical project information is monitored and updated in Atlas;
- Ensure that financial reports are submitted to UNDP on time, and that combined delivery reports are prepared and submitted to the Project Board;
- Ensure that risks are properly managed, and that the risk log in Atlas is regularly updated.

## **UNDP Principal Project Resident Representative or delegated authority**

The PPRR shall have the following responsibilities:

- Ensure that resources entrusted to UNDP are utilized appropriately;
- Ensure that the project is making progress towards intended outputs;
- Ensure regional ownership, ongoing stakeholder engagement and sustainability;
- Ensure that the project’s outputs contribute to intended SAP outcomes;
- Ensure that key results and issues pertaining to project performance are fed into the outcome and programme level monitoring;
- Approve budget for the first year in Atlas;
- Approve and sign the annual work plan for the following year.

**ANNEX 4: CEO ENDORSEMENT REQUEST**

See attached.

**ANNEX 5: GEF TRACKING TOOL**

See attached.

**ANNEX 6: UNDP SOCIAL AND ENVIRONMENTAL SCREENING PROCEDURE**

See attached.

**ANNEX 7: Cofinancing Letters**

See attached.