TERMINAL EVALUATION

of the Project

Building Local Capacity for Conservation and Sustainable Use of Biodiversity in the Okavango Delta (BioKavango)

[*PIMS 2028*, *ATLAS 00050134*]

Draft Final Report

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Acronyms and abbreviations

FC	Fisheries Coordinator
AVCU	Aquatic Vegetation Control Unit
BD	Biodiversity
BDC	Biodiversity Coordinator
BECS	Botswana Ecotourism Certification System
BOGA	Botswana Guides Association
BPMC	BioKavango Project Management Committee
BTO	Botswana Tourism Organization
CASS	Centre for Applied Social Sciences
CBO	Community-Based Organisation
CEO	Chief Executive Officer
CITES	Convention on International Trade in Endangered
DARMA	Defragmenting African Resource Management
DC	District Commissioner
DEA	Department of Environmental Affairs
DoT	Department of Tourism
DVCAA	Deputy Vice Chancellor Academic Affairs
DWA	Department of Water Affairs
DWNP	Department of Wildlife and National Parks
EPSMO	Environmental Protection and Sustainable Management of the Okavango
FC	Fisheries Coordinator
GEF	Global Environment Facility
HATAB	Hotel and Tourism Association of Botswana
HOORC	Harry Oppenheimer Okavango Research Centre
IFMS	Improved Fisheries Management System
ITRS	Identification of Tourism Related Sites
IWRM	Integrated Resources Water Management
JMC	Joint Management Committee
KCS	Kalahari Conservation Society
MEA	Multi-lateral Environmental Agreement
MOMS	Management Oriented Monitoring System
MWA	Wildlife Management Area
NAP	National Action Plan
NDP	National Development Plan
NGO	Nongovernmental Organization
NPC	National Project Coordinator
NWDC	North West District Council
ODIS	Okavango Delta Information System
ODMP	Okavango Delta Management Plan

OFA	Okavango Fishers Association
OFMC	Okavango Fishers Management Committee
OKACOM	Permanent Okavango River Commission
ORI	Okavango Research Institute (former HOORC)
OWMC	Okavango Wetland Management Committee
PMU	Project Management Unit
PPF	Peace Parks Foundation
PSC	Project Steering Committee
RSA	Republic of South Africa
SADC	Southern African Development Community
SAP	Strategic Action Program/Plan
SAREP	Southern Africa Regional Environment Program
TDA	Transboundary Diagnostic Analysis
TDS	Total Dissolved Solids
TE	Terminal Evaluation
TLB	Tawana Land Board
TOCADI	Trust for Okavango Cultural and Development Initiatives
TS	Tourism Specialist
UNDP	United Nations Development Programme
WCM	Water Component Manager
WQM	Water Quality Monitoring Program

1. Executive summary

This is the independent Terminal Evaluation of the UNDP/GEF/Government of Botswana Project "Building Local Capacity for Conservation and Sustainable Use of Biodiversity in the Okavango Delta (BioKavango)", in line with Okavango Development Management Plan (ODMP). The University of Botswana served as Executing Agency on behalf of UNDP and the GEF, and the Project Steering Committee was chaired by the Department of Environmental Affairs (DEA). Project activities were coordinated by the Project Management Unit (PMU) established for the purpose by University of Botswana in its Okavango Research Institute (ORI) – formerly the Harry Oppenheimer Okavango Research Centre (HOORC) based in Maun. The Project website can be found at: http://www.orc.bw/biokavango.

The specific vision of the ODMP was:
"*A carefully managed, well functioning ecosystem that equitably and sustainably provides benefits for local, national and international stakeholders*".

Within this vision, the BioKavango Project describes its long-term Goal as:
"*The natural integrity and ecological services provided by Botswana's wetlands are sustained*"

The operational purpose or Project Objective of BioKavango is described in the Project Document as:
"*Biodiversity management objectives are mainstreamed into the main production sectors of the Okavango Delta*"

Work towards the Objective was pursued through four Outcomes:
Outcome 1. Enabling environment strengthened at both systemic and institutional levels.
Outcome 2. Biodiversity objectives integrated into the water sector.
Outcome 3. The tourism sector is directly contributing to biodiversity conservation objectives in the Okavango Delta.
Outcome 4. Biodiversity friendly management methods are inducted into fisheries production systems.

The project had an initial total budget of US$16,130,000 and the GEF provided input of US$4,000,000. While the original co-funding commitment was US$12,130,000, this was exceeded by a significant amount by the end of the project, with a final co-funding commitment of US$17,620,700.

The Evaluation

Like all GEF Terminal Evaluations, this TE was carried out:
- To promote accountability and transparency, and to assess and disclose levels of project
- accomplishments;
- To synthesize lessons that may help improve the selection, design and implementation of future GEF activities;
- To provide feedback on issues that are recurrent across the portfolio and need attention, and on improvements regarding previously identified issues; and,
- To contribute to the GEF Evaluation Office databases for aggregation, analysis and reporting on effectiveness of GEF operations in achieving global environmental benefits and on quality of monitoring and evaluation across the GEF system.

The approach adopted was participatory which, while safeguarding the independence of the Evaluator, included self-assessments by the Project Coordination Unit. A six-point rating

system was applied to elements of the Project, in particular on progress towards the Objectives and Outcomes.

Key Findings and Conclusions

Project formulation

The project concept was sound with a reasonable timescale and an adequate budget. The project design was complex, the Objective Indicators were not particularly specific or measurable and there was a gap in the identification of livelihood indicators at the Outcome level. But the mainstreaming concept was innovative, the ecosystem approach was appropriate in the context of a variable wetland, the choice of an academic institution as Executing Agency proved effective, and the linkages between the project and existing/ planned initiatives in Botswana added value.

Project preparation was undertaken in a highly participatory manner, involving a broad range of stakeholder groups using a number of different information gathering methods.

Project governance, coordination and partnerships

Governance of the project was complex and multi-layered, but it worked satisfactorily. The fact that the project was embedded in the wider ODMP process worked in its favour and ensured a high level of involvement by many stakeholders at national, District and local levels. There was fairly good collaboration between Government departments and between Government and non-Government partners.

Partnerships and collaboration were a feature of the project – between the UNDP CO and UB -ORI as Executing Agency, between the PMU, PSC and various partner organizations, between central and local Government, and between the many stakeholders involved, especially at local level. There was some evidence of a capacity gap in the UNDP CO, in its ability to respond quickly to the financial and technical needs of the project; this gap should be addressed in future. PSC members could have done more to advance the mainstreaming concept within their respective government departments.

The PMU located in UB-ORI played a crucial role in the coordination of the project which was carried out effectively and efficiently; the inertia experienced in the first 18 months of the project was remedied by the appointment of an ORI-based BPMC. The small team worked well together, cohesively, with good leadership and excellent team spirit. It is held in high regard by all those consulted.

Implementation approach and institutional arrangements

Setting the BioKavango project within the wider ODMP context, which was being implemented by an existing organization (DEA), was an important factor in its success. The partnerships which had already been forged, the consultative and governance processes which were already in place, the technical support which was available, all stood the project in good stead and allowed it to benefit from on-going complementary initiatives. This approach was efficient and cost-effective.

As evidenced by the regular reports from the project and from the supervision missions by the Implementing Agencies, project implementation proceeded comparatively smoothly – after an initial slow start – especially for a complex, multi-faceted project such as this one.

Stakeholders were meaningfully involved in project implementation; many have benefited from capacity building exercises while others participated in various governance groups such as steering committees, forums, etc. Information has been reasonably well-managed. It has

been shared with partners and beyond and it has served as a key mechanism holding the partnership together. Information was the basis for the project's outreach to the wider Okavango Delta region and beyond.

Project Financial Management

Financial planning, management and reporting as a means of accountability has been as complex as other aspects of the project. However, they have been carried out diligently and effectively. All audits of the project's performance have been positive, with no significant problems identified.

The amount of co-funding pledged during project formulation greatly exceeded the 1:1 GEF requirement and the amount committed during the project indicated additional commitment, particularly by private sector partners.

Risk management

A number of problems and constraints which could impact on the successful delivery of the project were identified at the project design stage. Others were raised as part of the Mid-Term Evaluation.

In the event, most of the risks identified either did not eventuate or they were mitigated successfully and no new risks emerged during project implementation. The PMU and UNDP CO showed good attention to risk identification and mitigation.

Monitoring and Adaptive Management

The project M&E Plan comprised an impressive, comprehensive logical framework which more than satisfied GEF requirements. The Logframe served as an effective basis for monitoring performance, reporting progress and informing management to take any necessary corrective action.

The only weakness of this approach was that the Indicators at Objective level were not particularly helpful as measures of success at biodiversity mainstreaming. Indicators at the Outcomes level were more SMART and worked effectively towards the Outcome, in spite of its Indicators.

The emphasis of some Indicators was changed in the direction of livelihoods during the course of the project and this could be claimed to be a sign of adaptive management. With a stronger set of Indicators at the Objective level, which satisfy the SMART criteria, this approach to monitoring and adaptive management could be considered best practice.

Results and Impacts

In spite of the fact that the Objective Indicators in the LogFrame were not completely specific or measurable, indications are that the Objective has largely been achieved. This conclusion is supported by the progress reports, PIRs, Mid-Term Evaluation, consultations and field visits.

It is very likely that the results achieved under Outcome 1 will make a significant contribution to a foundation for mainstreaming biodiversity in the Okavango Delta into economic activities. A number of piloting initiatives were carried out successfully under Outcomes 2, 3 and 4 but several will need additional support to achieve their full impact. However, the models are sound and if they are sustained, can be expected to lead to the hoped-for results.

Under each of the Outcomes, the project delivered a range of products and services. Often, the component focused strongly on particular aspects of the Outcome/Output.

The project targeted many foundational and intermediate products and it achieved most of these successfully. Some progress has also been made towards true results and impacts but the full impact of the project will only accrue in time, and in conjunction with other initiatives.

Relevance, effectiveness and sustainability

The Okavango Delta ecosystem is still considered almost "pristine". Project activities have been very relevant to the needs of the Okavango Delta, and to Botswana more generally, and they were carried out effectively in general. Many products have been internalized, institutionalized and mainstreamed as core activities of key agencies at both national and District levels. However, some institutionalization is dependent on staffing levels being augmented and sustained, and on funds becoming available since financial sustainability is not yet secure for some activities. On the other hand, there are good prospects for environmental sustainability within Botswana and internationally with support for OKACOM.

In extending the implementation of the ODMP, consideration should be given to broadening the active stakeholders to include others whose action/ inaction has a bearing on biodiversity conservation, such as agriculture and livestock husbandry.

Overall conclusion

This has been a successful project. Through its plans, strategies, methodologies, and pilots it has laid a good foundation for biodiversity conservation in the Okavango Delta. Its results are mainly intermediate at this stage and its impacts will accrue through the use of its products and the application of its services by the responsible institutions. Cooperation and collaboration are the most distinguishing features of the project - between UB-ORI, government departments (particularly DEA), local government and various other stakeholders. It is a model which is rarely encountered, certainly not to this extent. Good progress has been made towards the Goal and Objective, and Outcomes were all rated as **Satisfactory**. Sustainability of project Outcomes was addressed in the project design, rather than in a specific effort towards a sustainability plan, but it is generally considered **Moderately Likely**.

A summary of ratings for all project components is provided in the following table.

Criterion	Rating
Project formulation	
Concept and design	Satisfactory
Stakeholder participation in project formulation	Highly Satisfactory
Project implementation	
Project governance	Satisfactory
Project coordination	Moderately Satisfactory
Implementation approach	
The LogFrame and adaptive management	Satisfactory
Stakeholder participation in implementation	Satisfactory
Information management	Moderately Satisfactory
Risk management	Satisfactory
Project finances	
Financial planning and management	Highly Satisfactory
Co-financing	Highly Satisfactory
Monitoring and evaluation	
M&E plan, design and budget	Satisfactory
Project results - Achievements of Objectives and attainment of Outcomes/ Outputs, with reference to the Indicators	
Project Objective	Satisfactory
Outcome 1	Satisfactory
Outcome 2	Satisfactory
Outcome 3	Satisfactory
Outcome 4	Satisfactory
Relevance, Effectiveness and Sustainability	
Relevance	Highly Satisfactory
Effectiveness	Satisfactory
Institutional sustainability	Moderately Likely
Financial sustainability	Moderately Likely
Social sustainability	Moderately Likely
Environmental sustainability	Likely
Overall project rating	**Satisfactory**

Recommendations

Actions to follow up or reinforce initial benefits from the project should note:

1. It is important to maintain staff in key positions for longer periods and ensure handover of skills and knowledge to successors. This applies to Government departments, such as DEA, DWA, and Fisheries in DWNP. It also applies to the District Administration and to the Tawana Land Board. Private sector tourism operations experience similar turnover of management and other staff, some of whom have been involved in water quality monitoring, *Salvinia* control and waste management; there should be more commitment to continuity.

2. Government departments at national and local level should provide sufficient resources to stations and offices to sustain outcomes.

Actions for the design, implementation, monitoring and evaluation of future projects should note:

3. Replication prospects need careful thought within Botswana and elsewhere; the BioKavango project had many unique aspects.

4. Any future project of this nature, dealing with a broad range of stakeholders and different forms of land use, will require a preparatory planning phase that is fully participatory. If there is such a process already underway, as in the case of the ODMP, then the formulation activities should dovetail with it; if there is no such process in existence, then there should be an early phase of the project itself, or a preliminary, smaller scale project on its own, that would undertake this essential groundwork, identification and sensitization.

5. In a biodiversity mainstreaming project, dealing with key production sectors, it is essential to emphasize livelihoods targets, as well as those for biodiversity.

6. Since an academic institution proved successful as Executing Agency, such a body should be considered for a similar role in future mainstreaming projects. However, financial and centralized administrative procedures should allow greater flexibility while retaining essential oversight, with provision for a semi-autonomous management committee, to avoid delays in mobilization. Capacity in socio-economic and policy formulation should be present or, if absent, strengthened.

7. Knowledge management should form a key part of operational procedures from the outset, and documentation of all project outputs should continue as an essential function throughout its work period. Knowledge management procedures should stand alone and retain separate protection and backup for all IT systems.

8. Monitoring and evaluation should be treated as a distinct core function, with a dedicated budget, not just part of the National Project Coordinator's job description.

9. A sustainability plan should be developed as a distinct exercise, implemented in time for recommendations to take effect before the end of the project. This plan would look at both financial sustainability (mechanisms, leveraging opportunities) and outcome sustainability.

10. There is a need to explore and promote, if not ensure, the prospects for commitment at the project outset by local and national government agencies to sustain financial resource and human resources beyond the end of implementation.

2. Introduction – the evaluation process

2.1 The GEF Monitoring and Evaluation principles

UNDP/GEF Monitoring and Evaluation policies for regular and medium-sized projects require that a final evaluation be performed upon completion of project implementation. An evaluation at the end of a project's cycle is needed to assess the project's design, scope, relevance, performance and success, to look for early signs of potential impact and sustainability, to promote accountability and transparency, and to provide lessons that may help improve the selection, design and implementation of future UNDP/GEF activities. It may also contribute to the GEF Evaluation Office databases for reporting on effectiveness of GEF operations in achieving global environmental benefits and on the quality of monitoring and evaluation across the broader GEF system.

In accordance with the monitoring and evaluation policy of the GEF, this evaluation is guided by, and has applied, the following principles:

Independence
The Evaluator is independent and has not been engaged in the Project activities, nor was he responsible in the past for the design, implementation or supervision of the project.

Impartiality
The Evaluator has endeavoured to provide a comprehensive and balanced presentation of strengths and weaknesses of the project. The evaluation process has been impartial in all stages and taken into account all the views received from stakeholders.

Transparency
The Evaluator conveyed in as open a manner as possible the purpose of the evaluation, the criteria applied and the intended use of the findings. This evaluation report aims to provide transparent information on its sources, methodologies and approach.

Disclosure
This report serves as a mechanism through which the findings and lessons identified in the evaluation are disseminated to policymakers, operational staff, beneficiaries, the general public and other stakeholders.

Ethical
The Evaluator has respected the right of institutions and individuals to provide information in confidence and the sources of specific information and opinions in this report are not disclosed except where necessary and then only after confirmation with the consultee.

Competencies and Capacities
The credentials of the Evaluator in terms of his expertise, seniority and experience are a suitable match to the criteria required by the terms of reference (Annex 1); and the methodology used for the assessment of results and performance is described below (section 2.3).

Credibility
This evaluation has been based on data and observations which are considered reliable and dependable with reference to the quality of instruments and procedures and analysis used to collect and interpret information.

Utility
The Evaluator strived to be as well-informed as possible and this ensuing report is considered as relevant, timely and as concise as possible. In an attempt to be of maximum benefit to

stakeholders, the report presents in a complete and balanced way the evidence, findings and issues, conclusions and recommendations.

2.2 Purpose of the evaluation

The Terms of Reference of this TE require it to "assess the performance of the project against planned results. The results of the evaluation will also inform the partners in the project, on the need for further support in complementary areas to achieve sustainable development."

Like all GEF Terminal Evaluations, this TE is being carried out:

- To promote accountability and transparency, and to assess and disclose levels of project accomplishments;
- To synthesize lessons that may help improve the selection, design and implementation of future GEF activities, including other projects considered in the region;
- To provide feedback on issues that are recurrent across the portfolio and need attention, and on improvements regarding previously identified issues; and,
- To contribute to the GEF Evaluation Office databases for aggregation, analysis and reporting on effectiveness of GEF operations in achieving global environmental benefits and on quality of monitoring and evaluation across the GEF system.

A more specific list of tasks expected of the TE is in the ToRs in Annex 1.

The Terminal Evaluation is intended to provide a comprehensive overall assessment of the project and serves as an opportunity to critically assess administrative and technical strategies, issues and constraints. The evaluation sets about attempting to provide answers to the following questions:

- Did the project achieve its objectives? (= results)
- Did it do it well? (= implementation process)
- Are the results likely to be sustainable (= impacts and sustainability).

2.3 Methodology of the evaluation

Work on this assignment commenced from home base in United Kingdom in late June 2011 with planning and documents review, and I travelled to Pretoria on 2/3 July. The first few days, 4-5 July, were taken up with initial briefings and consultations at the UNDP Regional Office, followed by briefing at the UNDP Country Office on 6 July. An Inception Meeting with the Project Steering Committee was held in Maun on 7 July. A series of brief visits followed with stakeholders in Maun and in a number of project sites in the Okavango Delta and its Panhandle during 7-22 July.

Further consultations with stakeholders took place in Gaborone during 25-28 July, and a presentation of preliminary findings was made to the Project Steering Committee on 29 July, where initial feedback was provided. The in-country mission for the evaluation consultant ended on 30 July.

During the course of the assignment, three sources of primary data and information were examined:

Firstly, a wide variety of documents covering project design, implementation progress, monitoring and review (including the Mid-Term Review), studies, District and National Development Plans, policies/ legislation/ regulations on land and natural resource management, the Okavango Delta Management Plan and products from the EPSMO and OKACOM initiatives – among others. Documents reviewed are listed in Annex 2.

Secondly, face-to-face consultations with a wide range of stakeholders, using "semi-structured interviews" with a key set of questions in a conversational format. Stakeholders interviewed included members of the Project team (UB and UNDP staff who have project responsibilities), Regional and District authorities and technical officers, the Director of DEA (Chair of the Project Steering Committee), government at national and local level, community based organizations and individuals, private-sector organizations and individuals and NGOs. The stakeholders contacted are listed in Annex 3.

Thirdly, direct observations of project results and activities at a selection of field sites, such as *Salvinia* control operations, waste management facilities, fishing areas and community joint management projects.

Since it was not possible, in the limited time available for this Evaluation, to meet all of the stakeholders involved in the wide range of Project activities, some sampling of the total was required. An itinerary of interviews in Maun and Gaborone and visits to Project field sites was proposed by the UNDP Botswana office and the PMU team and was modified through discussion between the Consultant, members of the PSC and the PMU. The PMU, and S. Mosojane in particular, provided logistical support for all the consultations and field visits. It is important to note that Mr Mosojane was very careful to ensure that all interviews were conducted independently; he generally withdrew after introductions had been made, so that all discussions with stakeholders allowed for full and frank expressions of opinion. A copy of the itinerary for the consultations is attached in Annex 4.

The information collected, including documentary evidence, interviews and observations, was compiled and organized according to the questions asked in the assessment. Triangulation of results, i.e. comparing information from different sources, such as documentation and interviews, or interviews on the same subject with different stakeholders, was used to corroborate or check the reliability of evidence.

2.4 Structure of the evaluation

The TE must provide an assessment of the impacts that a project has achieved, but these may often occur in the longer term, especially in the case of a "process" type project such as BioKavango, where change of attitudes and operating procedures ("mainstreaming") is the objective. In such cases, it is reasonable to assess results that can be expected to lead to impacts, namely the Outcomes.

The project should be evaluated for all phases of its cycle: a) project design/ formulation, b) project implementation and c) project results.

This report is composed of four substantive parts. Following the executive summary that provides the essence of the information contained in the report, the first part provides the introduction and the background to the assignment. It starts with the purpose of the evaluation, exactly what was evaluated and the methods used and it then offers a brief context of the project. The next part is the main substantive part of this report and comprises four inter-related sections. It presents the findings of the evaluation exercise in terms of the basic project concept and design, its implementation, administration and management, its achievements and limitations, and the relevance of what it achieved, its degree of effectiveness and the potential for sustainability of the Outcomes that it produced. The findings are based on factual evidence obtained by the Evaluator through document reviews and consultations with stakeholders and beneficiaries.

The third part is the conclusions section which gathers together a summary of the ratings given and conclusions that had been reached throughout the report and augments them to create a cohesive ending arising from the investigation. The findings were rated in

conformity with the GEF/UNDP guidelines[1] for final evaluations using the following six-point scale: Highly Satisfactory, Satisfactory, Moderately Satisfactory, Moderately Unsatisfactory, Unsatisfactory, Highly Unsatisfactory. Sustainability of implementation and outcomes was rated on a five-point scale: Likely, Moderately Likely, Moderately Unlikely, Unlikely, Highly Unlikely. Annex 5 provides a guide for the use of these scales for rating.

The final section provides recommendations. A number of annexes provide supplementary information.

2.5 Evaluation Team Composition

The evaluation team was composed of Dr. Keith Lindsay, The Environment & Development Group, based in Oxford, United Kingdom.

[1] UNDP Evaluation Guidance for GEF-Financed Projects (2011)

3. The project and its development context

3.1 Project Setting – The Okavango Delta

The Okavango River Basin covers 192,500 square km, rising in the highlands of Angola, passing along the Angolan/Namibian border, through the Caprivi Strip, into a narrow 'panhandle' and fanning out onto the floodplains of the Okavango Delta, a wetland of global biodiversity importance. It is one of the largest internal drainage basins in Africa.

The Delta comprises a perennially flooded core area of channels and swamps, of from 2,000 to 3,000 square km, surrounded by a seasonally flooded periphery of 4,000 to 8,000 square km. Only 2-3% of the water entering the Delta leaves its distal reaches – feeding at infrequent intervals, Lake Ngami, the Mababe Depression and Makgadikgadi Pans.

The biodiversity values of the Delta, recognized by its listing as a Ramsar Site in 1997, lie in the complex mosaic of floodplains, channels and inter-digitating stretches of low rises carrying woodlands, grasslands and riparian forest of great beauty. It is in the aesthetic appeal of the Okavango, with strong contrasts of wetland and savanna, and an abundance of various relatively common wildlife species, that the fame of the Delta lies. The Ramsar Site includes important populations of Slaty egret (*Egretta vinanceigula*) and Wattled crane (*Bugeranus carunculatus*), and an avifauna of 448 species, but compared with many other protected areas or biodiversity 'hotspots', is un-remarkable in global terms.

To the human populations of the area, the biodiversity values of the Delta lie in its ecosystem services and goods, not its species richness or species endemicity. The pulsed flooding regime, and the rich fish, veld products and wildlife tourism opportunities that the ecosystem as a whole provides, are of much greater importance than any of its individual parts. It is in the maintenance of the whole functioning system, rather than specific elements, that the conservation and development challenges lie.

An estimated 80,000 people rely on the wetland resources of the Delta for part of their household economy.

Tourism, in particular wildlife based tourism, is the largest economic activity in the Delta with a turnover estimated in 2006 as in excess of US$200 million. Over 80 lodges and campsites provide approximately 1,800 beds in the Delta. The eco-tourism industry in Botswana follows a high cost/low volume policy, with facilities in the Delta targeting high-wealth foreign visitors.

Community-based tourism is still in the early stage of development, with 14 registered Community-Based Organisations receiving US$1.4m from joint venture operations in 2003. The activity is constrained by limited business management skills.

The Tribal Land Act of 1968 provides for open access to natural resources in Tribal Lands (which comprise 100% of the project area) for all citizens. Subsistence use of natural resources from the Okavango provides an important contribution to household economies – principally for fishing, basket making, thatching grass, reeds and poles for house construction, wood for fuel, and fruits and bulbs for food and dyeing.

Endemic foot and mouth disease prevents export of meat from the Delta, although pastoralism with cattle and goats is an important traditional activity in the periphery surrounding the floodplains. Rain-fed and flood recession agricultural production is limited by poor soils and distance from markets, and from the inherent unpredictability of floods and droughts.

The Government of Botswana has developed a National Wetlands Policy and Strategy (now in the process of enactment). A Management Plan for the Okavango Delta (ODMP) has been developed as a schema for sustainable development in the area. This Plan is the first of a series of Plans that will be written for wetlands. The Project is designed to support the elaboration and implementation of the ODMP.

3.2 Problems the project seeks to address

While the ecological integrity of this wetland remains largely intact, there are signs it is being slowly eroded in the face of gradually rising anthropogenic pressures. There is an urgent need across Botswana's wetland environments to balance competing uses of water and other wetland resources by production sectors, while providing for biodiversity conservation objectives.

The BioKavango Project is an intended and seamless follow-on to the Okavango Delta Management Plan (ODMP), which was prepared through a comprehensive, participative consultation process involving all key stakeholders. As a consequence, BioKavango could build on the very substantial intellectual and institutional framework provided by the ODMP. The ODMP, inter alia, addressed such issues as institutional arrangements; roles and responsibilities in planning; planning and management priorities; and the nature of projects and programmes needed to address the priorities identified. It made recommendations on implementation modalities. BioKavango was initiated as a primary implementation vehicle for the ODMP, providing a pilot activity which would test approaches and provide lessons on which replication elsewhere could be based.

Building on the ODMP experience, the BioKavango project team undertook a detailed situation analysis during the preparation of the Project Document. This identified, through wide stakeholder participation, the key barriers to achieving biodiversity conservation goals in the Okavango Delta.

The barriers include:

1. A systemic and institutional capacity deficit for wetland management; (e.g. – absence of an integrated planning system; need to establish an ecological reserve for water resources; open access policy on all natural resources on tribal land which comprises the whole project area; need for management plans for protected areas which were developed in isolation with little consideration for ecological linkages).

2. Conflicts between user groups over access to wetland resources; (e.g. – the population in the Delta is outgrowing current plans for village development; open access to fishing without monitoring of use; need for models to link hydrology and ecological dynamics).

3. Weak access to knowledge required to guide decision making from local user level to regulatory authorities; (eg - need for models of cooperative governance; need for specific policy/regulations for fisheries and aquaculture development; absence of unifying legislation addressing biodiversity conservation objectives; tensions between different authorities as to their respective mandates).

4. The absence of voluntary mechanisms and incentives to promote involvement by private industry (especially eco-tourism) in conservation. (eg - promotion of business interests with little emphasis on biodiversity conservation; tourism industry – exclusive/ elitist/ untransformed/disenfranchising; lack of certification system and conservation standards for ecotourism).

3.3 Goal and Objective of the project

As noted above, the project has been developed as a direct outcome of the Okavango Delta Management Plan (ODMP), which itself built on the planning initiatives growing out of the ratification, by Botswana, of the Convention on Biological Diversity in 1997 and the listing of the Okavango as a Ramsar Site in 1997. In 2000 the government prepared a Draft National Wetland Policy and Strategy (NWPS). Both the NWPS and ODMP embrace the 'Ecosystem Approach' advocated by the CBD, and led, almost seamlessly, to the development of the BioKavango project to implement key elements of the ODMP.

The project design follows a hierarchy of vision, goal, objective, outcomes and outputs, a structure which conforms to national planning frameworks followed by most governments around the world.

Botswana's key policy document guiding planning activities is the National Vision 2016, 'towards prosperity for all' which advocated the development of a Master Plan for the Okavango Delta.

The specific vision of the ODMP was:
"*A carefully managed, well functioning ecosystem that equitably and sustainably provides benefits for local, national and international stakeholders*"

Fitting within this vision, the BioKavango Project describes its long-term **Goal** as:
"*The natural integrity and ecological services provided by Botswana's wetlands are sustained*"

The operational purpose or **Project Objective** of BioKavango is described in the Project Document as:
"*Biodiversity management objectives are mainstreamed into the main production sectors of the Okavango Delta*"

Two primary indicators for this Objective are given in the Project Document, which measure:
1. Changes in the total production landscape under improved conservation management and
2. The populations of selected wetland indicator species

These indicators are not particularly SMART[2], being difficult to quantify (land under improved conservation management) or too specific (indicator species) – to provide any convincing test of the mainstreaming biodiversity hypothesis. This problem will be addressed in the sections on project formulation, results and conclusions.

The project was designed around four key components (or **Outcomes**) which were to contribute to achieving the Project Objective:

Outcome 1. Enabling environment strengthened at both systemic and institutional levels.
Outcome 2. Biodiversity objectives integrated into the water sector.
Outcome 3. The tourism sector is directly contributing to biodiversity conservation objectives in the Okavango Delta.
Outcome 4. Biodiversity friendly management methods are inducted into fisheries production systems.

The components each had a suite of specific and cross-cutting activities delivering measurable outputs. Objective, Outcomes and Activities were integrated within the Logical

[2] SMART = Specific, Measurable, Achievable, Realistic and Timely, according to UNDP Evaluation Guidance for GEF-Financed Projects (2011).

Framework provided in the Project Document (see Annex 6 for the Logframe at the end of project).

3.4 Main stakeholders

A strong emphasis was placed on participation and engagement between the various stakeholders, and building partnerships between government, private sector and rural communities.

The Project Document lists stakeholders to include natural resource users (fishers and tour operators), resource regulators (national and district government departments), independent organisations (HOORC/ORI and NGOs), and local and visiting technical experts. In addition, international institutions such as OKACOM, SADC, UNDP, etc., were important stakeholders.

3.5 Results expected

The project moved beyond the ODMP's commitment to the use of the Ecosystem Approach by setting itself the challenge of reaching its goals through implementing newly articulated mainstreaming concepts. It was thus highly innovative in testing the hypothesis that biodiversity conservation and human development goals can be achieved simultaneously through the mainstreaming of biodiversity objectives within production sectors. The approach may be adapted for replication elsewhere in Botswana and applicable to other wetlands within Southern Africa.

The results expected were spelt out in detail in the Logical Framework. In its most concise description, the project's aim was to achieve biodiversity conservation and improved human wellbeing through all stakeholders accepting responsibility for biodiversity conservation as part of their normal activities, rather than as the responsibility of other persons or agencies. Mainstreaming biodiversity thus requires stakeholders:
"*to internalize the goals of biodiversity conservation and the sustainable use of biological resources into economic sectors and development models, policies and programmes, and therefore into all human behaviour*".

The conceptual framework to the mainstreaming approach, which was fundamental to the success of the project, is discussed below in section 4.1. In summary, the project sought to deliver:

- improved human capacity through training and mentoring;
- improved institutional capacity by placing key professionals in decision support positions;
- improved biodiversity and land-use and natural resource management through pilot demonstration projects;
- strengthened institutions through effective partnerships and networks;
- heightened awareness of the value of biodiversity to human wellbeing;
- improved livelihoods through better small business activities;
- incentives to tourism operators through the development of standards and certification; etc.

The wide array of activities were intended to contribute to a central focus on improved biodiversity conservation and sustainable livelihoods, needing effective integration of outputs to achieve the project goal.

3.6 Project start and duration

The project was initially planned to start on 1st January 2006. Administrative delays were encountered and the Project Document was signed on 24th March 2006. Further delays at the

Executing Agency (the University of Botswana), relating to the procurement of key project staff, resulted in the postponement of project implementation until 1st May 2006. The project was concluded by 30th June 2011.

4. Findings: Project formulation

The Project Document was thoroughly produced, well-researched and comprehensive. It provides a clear situation analysis of the socio-economic context, threats to biodiversity and their root causes, stakeholder characteristics and the policy and legislative environment. Similarly, it responds fully to UNDP-GEF requirements in terms of strategy and project management arrangements, and the incremental cost analysis

4.1 Conceptual model, the ecosystem approach & mainstreaming biodiversity

The ecosystem approach is particularly appropriate in the dynamic context of a pulse-flow watershed, with stakeholders already aware of their dependence on natural processes of change.

The mainstreaming concept is complementary to ecosystem thinking in its recognition of the role of human activities in exploiting and modifying ecological processes. The project represents an Innovative, early attempt to directly test the hypothesis that mainstreaming biodiversity can transform key production sectors, achieving both conservation and socio-economic goals in a globally important wetland. The technical explanation of mainstreaming is well developed in the Project Document, but there was apparently a challenge to communicate the concept effectively to stakeholders during the planning phase and throughout the project. This challenge is particularly pertinent since the new approach carries some potentially weak assumptions which could influence the project's chances of success, and of its general replication in the region.

In recent years, conservation biologists and development specialists have reached a high level of consensus on the key characteristics of successful mainstreaming initiatives[3]. In essence, mainstreaming requires certain pre-conditions, stimuli and implementation mechanisms. These could have been more fully explored during the project's preparation and used to communicate the special aspects of the Okavango context.

As noted in the Mid-Term Evaluation report, several pre-conditions for mainstreaming are met in Botswana. These include:

- Democratic and accountable governance. These aspects are well-developed in Botswana but somewhat unusual in the region.
- Awareness and knowledge. The values of the Okavango are recognized well at both national and international levels
- Organisational and institutional capacity. In Botswana, with its relatively low population but significant financial resources, institutions stretched but competent.

A second suite of elements necessary for mainstreaming include various stimuli, both internal and external to the system:

- The threat of resource decline. This is represented by water extraction in Botswana and upstream, the CBPP outbreak in 1999 and recurrent droughts
- Improved governance. Examples in recent years in include the Okavango Basin Commission, Ramsar site declaration and the ODMP.
- Socio-economic incentives. Pilot projects on developing incentives form an important part of the project plan.

The third leg of the mainstreaming model relates to the mechanisms used in implementing the process. These include:

[3] Petersen, C. & B. Huntley. 2005. *Mainstreaming Biodiversity in Production Landscapes*. Working Paper 2005, Global Environment Facility.

- Effective communication. A good process was started by the ODMP and extended by project design but there does remain room for improvement.
- Strengthening institutional capacity. Capacity-building is a primary focus of the project
- Enabling legislation and policy. Support for policy, legislation and regulation is another key focus of the project

As was noted in the MTE, the project meets the key requirements for successful mainstreaming, while simultaneously testing four fundamental but challenging concepts:

- The building of 'living' conservation landscapes, through the mainstreaming (or integration) of biodiversity conservation in the policy frameworks and operational activities of production sectors;
- Adaptive management for dealing with landscape and social complexity – dealing with resource conflicts in an inclusive, developmental approach;
- Collaborative management of conservation by a multitude of stakeholders at different levels but influencing the same landscape, through continuous consultation and stimulated by incentives;
- The role of sustainable use of resources critical to stakeholders' livelihoods as a conservation tool.

4.2 Country relevance and drivenness

The project was highly relevant to the national vision of Botswana, its national policies and its strategies to protect biodiversity and wetland ecosystems, and was strongly supported by the authorities at national and local levels.

Ownership at national level was strengthened by the chairing of the Project Steering Committee by the Department of Environmental Affairs, by the strong representation of other national and local government departments on the PSC and its subsidiary committees, and by the key role played by the University of Botswana as the project Executing Agency.

At local levels, the active involvement of user and community groups such as the Okavango Fishers' Association and the Joint Management Committees provided direct access to and influence on project decisions by civil society.

The project was endorsed at a regional level by the strong involvement of OKACOM, which continues to play a crucial role in the conservation of the Delta ecosystem. The role of HOORC/ ORI in representing Botswana on the OKACOM Biodiversity Task Group provided it credibility on the various technical issues – TDS, E-flows, biodiversity – that OKACOM addresses. Lessons learned in BioKavango fed directly into the OKACOM programme, providing both guidance and replication from the BioKavango experience. This will be of special relevance once the Angolan partners increase their use of the capacity building opportunities provided by ORI.

4.3 Implementation approach

The project's implementation strategy to mainstreaming biodiversity into the water, fisheries and tourism sectors had two legs:

1. Building capacity within the regulatory authorities responsible for resource use allocation and management to assimilate and apply biodiversity management objectives in decision-making,
2. Transferring certain key responsibilities for biodiversity management to land users, ensuring that land use activities are undertaken with due diligence to conservation objectives.

The Project Document recognised that "command and control approaches alone will be inadequate to ensure effective and sustainable mainstreaming of biodiversity management objectives" in these sectors. Thus a critical innovation in its implementation strategy was the placing of project staff into key institutions, such as the Department of Environment Affairs, the Tawana Land Board, and ORI, where they interacted directly with their colleagues in mobilizing the mainstreaming process from within, rather than from above or from outside.

Capacity building is linked not only to key institutions and their professional staff, but also to resource users 'on the ground' through its pilot projects. The implementation strategy rested on the development of activities through strong partnerships with existing stakeholders in government, the private sector and resource users, including rural communities, fishers, and the tourism industry.

The mechanisms of capacity building and function transfer also included training courses and the development of manuals and guidelines, reviews of key issues (policy, legislation) by specialist consultants, field demonstration pilot projects, information management and sharing, and building community based and cross-sectoral networks.

The project's implementation was led and facilitated by its Project Management Unit, based at ORI in Maun. The effective functioning of the PMU and its governance and subsidiary committees is perhaps the most critical determinant of the project's successful implementation – a reality that is fully appreciated by project stakeholders.

The choice of an academic institution as Executing Agency for a development project could have been risky, but in fact it proved extremely effective as a neutral body that was able to mediate amongst the range of contesting stakeholder interests. The University of Botswana has a well-deserved reputation for sound financial management, and has sufficient financial resources to absorb short-term fluctuations in cash-flow that can occur if operational funding is dependent on timely remittance from a donor agency (see Section 5.1.2 below). It also has the advantage of continuity, with a long-term presence in the national infrastructure.

The University and the Research Centre in Maun brought a strong capacity for the collection of reliable data on the ecological functioning of the Delta ecosystem, through its own staff and its extensive network of international collaborators, and its application to conservation and social issues. There is also strong expertise in the social sciences covering academic areas of human geography, natural resources economics, anthropology, governance, cultural heritage and tourism development. One area where it is less strong is in the socio-economics of natural resource management and on the development of policy relating to environmental conservation and sustainable use; an example is the Centre for Applied Social Science (CASS) at the University of Zimbabwe which was intimately linked with pioneering approaches to CBNRM.

The alternatives for location of the PMU could have been a department of national government, a local government body or a locally-based NGO. It has been noted, by

government personnel among others, that projects embedded in government bodies tend to function poorly, in part because of capacity limitations and in part because they are bound by a single sectoral mission, which is likely to impede effective cross-sectoral integration. An NGO could serve the function, but could have somewhat similar capacity and sectoral limitations as a government department; in addition, the NGO community in Botswana is not particularly strong and, according to some reports, may have declined in recent years.

4.4 Replication approach and sustainability

As a pilot project in developing the concept of mainstreaming, BioKavango was designed with replication specifically in mind. The Project Document provides a clear and pragmatic approach to replication both within Botswana's other wetland systems, such as Makgadikgadi and Chobe, to dryland areas elsewhere in Botswana and to other localities in the region. The principal mechanisms of replication will be through the lessons learned in the implementation of the key pilot projects, and through products such as knowledge sharing innovations, training courses, handbooks and the broader use of the human capacity developed by the project.

Sustainability is being approached by integrating (mainstreaming) implementation costs within sectoral budgets in government, securing long term commitments from the private sector, the taking up of products (such as legislation and regulations) within government practice and most importantly, the placement of key professionals in tenured positions in relevant government, academic and private sector institutions. Examples include work carried out with Botswana Tourism Organization, Department of Water Affairs, the private sector, Tawana Land Board and others. The provision for development of a sustainability plan was considered during project formulation, but was deemed unnecessary in view of the infusion of project activities amongst stakeholder groups. This decision shall be examined further below (see 7.3.2).

4.5 Project development and linkages with other initiatives in the sector

Linkages between project and initiatives in Botswana (NWMS, ODMP, etc), and in the region , the Environmental Protection and Sustainable Management of the Okavango (EPSMO) and others gave it added value

Since the project evolved out of the ODMP process, itself a highly inclusive programme of environmental planning, strong linkages were already in place with a wide diversity of projects in the sector, country and region. These linkages were strengthened and expanded to ensure synergies and cost-effectiveness.

The Project Document identifies the relevance of the project to the UNDP-Botswana Country Programme on environment, especially in terms of the latter's objectives on governance, institutional capacity building and human resource development, environmental information management, and good practices in environmental impact assessment. The UNDP Country Programme had also provided financial support to the preparation of the Draft National Wetlands Policy and Strategy, which initiated the processes leading to the ODMP and the BioKavango Project. The project was also developed in line with the National Development Plan 9 (NDP9).

The Project Document lists and details activities relevant to the project at the time of writing, and the linkages to these have been strengthened by cross-representation on committees of each initiative. The key projects that have direct bearing on BioKavango's objectives include –

- The Environmental Protection and Sustainable Management of the Okavango River Basin project (EPSMO) within the UNDP/GEF regional International Waters Programme –

addressing trans-boundary water management issues, and developing and implementing a Strategic Action Programme (SAP);

- An Integrated Water Resources Management (IWRM) Plan – funded as a medium sized project by UNDP/GEF – to provide a framework for balancing competing water demands from different economic sectors, and more specifically, developing information on which the 'ecological reserve' for the maintenance of the Okavango wetland may be determined;
- The Okavango Integrated River Basin Project (IRBM) – a USAID funded regional programme. In particular, this project supports the establishment of the Permanent OKACOM Secretariat in Maun;
- The Every River Has Its People (ERP) Project – another regional programme – funded by SIDA - and focusing on civil society capacity and community level leadership;
- The Kavango – Zambezi TFCA (KAZA TFCA) – an initiative led by Peace Parks Foundation (PPF), with five countries participating to establish a major conservation and development area inclusive of Okavango.

Other GEF initiatives include the UNEP/GEF Global Invasive Species Programme and the UNDP/GEF Southern Africa Biodiversity Support Programme – both of which address Invasive Alien Species issues.

Other projects with a bearing on the Okavango Delta and Basin, that have started up since project formulation include:

- The Southern Africa Regional Environmental Program (SAREP) is the second phase of the IRBM project and builds on successes to date in partnership with OKACOM, the Southern African Development Community (SADC) and other agencies, while integrating assistance to improve regional cooperation in management of shared river basins with the goals to conserve and protect biological diversity and improve access to water supply and sanitation.
- The DARMA (Defragmenting African Resource Management) project, funded by the European Union, focuses on issues of common property resource management in the region, with an ecosystem approach to managing exploited resources and linking policy makers and local people. In Botswana four researchers are working closely with the Tubu community, following up with community rangers trained by BioKavango to undertake aspects of environmental monitoring.
- The Future Okavango (TFO) has started recently with collaborators from German universities in Germany looking at ecosystem services and climate change in the Okavango river basin. This project comprises data base development in conjunction with the OKACOM Secretariat.
- The Integrated Water Resources Management (IWRM) project, funded by GEF, managed by UNDP, owned by DWA and hosted by Kalahari Conservation Society, is intended to facilitate the development of national processes for efficient and equitable Integrated Water Resources Planning. Among its activities, the project supports the development of sewage management guidelines (done in collaboration with the BioKavango Project) and their incorporation into NWDC by-laws, and will implement pilot projects for water conservation through grey-water re-use in selected sites of Botswana, including in the Okavango Delta (where baseline assessments were done by BioKavango).

4.6 The logical framework

The preparation of the Project Document included a thorough Logical Framework development process, which has been built on and strengthened as the project has advanced. The use of the logical framework process through repeated and participatory reviews of

progress, and adaptive management through project planning workshops, has been a fundamental part of developing stakeholder buy-in.

There were two Indicators at Objective level:
1. "the area of wetland, where user groups are actively taking measures to protect biodiversity as part of production practice", and
2. "populations of wetland indicator species sustained"

These Indicators may have seemed to be appropriate and measurable, but in fact they are difficult to quantify and do not link clearly to the sustainable livelihoods aspect of production sectors in the Objective.

With the first Indicator, an assumption is made that if land users are participating in the project, then the area of land in which they (and possibly others) live automatically falls under the total for active measures being incorporated into livelihoods to protect biodiversity – this is a weak assumption. It is the case that the project area was well-defined at formulation stage, and that the Controlled Hunting Areas (CHAs) into which Ngamiland is subdivided could serve as a basis for tallying land areas under different forms of production.

However, activities under Outcome 1 were rather broad in scope and their impacts could not be attributed to individual CHAs. The pilot projects under Outcomes 2, 3 and 4 did not necessarily include the entire land areas, nor the entire human populations, enclosed within their respective CHAs, and only some aspects of livelihoods were addressed in each case. While it could be correct to say that (some) user groups were actively taking (some) measures to protect biodiversity as part of (some) production practice in (some parts of) the CHAs in question, and that this is a positive result, it is not a strong measure of overall success.

Secondly, the assumption that population levels of the target species – slaty egret (*Egretta vinaceigula*), wattled crane (*Bugeranus carunculatus*), red lechwe (*Kobus leche leche*) and sitatunga (*Tragelaphus spekii*) – could be used to indicate successful mainstreaming of biodiversity within production sectors – was also weak. The population fluctuations of indicator species might be independent of project related impacts; for example rising water levels in the Delta in recent years are likely to have increased the area and quality of habitat for the target species, while falling water levels could have had the inverse effect, independent of human agency.

It has been suggested that a change of +/- 20% in species abundances could be attributed to natural variation and any greater change must be due to human influence, but this assumption is not established with scientific evidence. The population levels of the target species on a Delta-wide scale had not been accurately assessed at the commencement of the project and could not serve, therefore, as a baseline for monitoring management impact. Monitoring records on a localized scale, such as within pilot project areas, might show evidence only of re-distribution rather than changes in population size; larger scale records are needed. Similarly, the population dynamics of large mammals or birds can take several years to show significant change; longer term records – and comparison with a control area not receiving intervention - are needed. In summary, changes in the populations of indicator species are possibly, but not necessarily, useful indicators of biodiversity mainstreaming.

In addition, the short time-frame of the project limits the use of more meaningful measures of improved livelihoods – such as the Human Development Index - and funding constraints prohibit more accurate and consistent estimates of bird and mammal populations. For these reasons, the Indicators at Objective level do not meet the SMART criteria of Measurable, Relevant or Timely.

In the interest of offering a positive alternative, an Indicator for the Objective of biodiversity mainstreaming could have been:
"Biodiversity management principles are incorporated into day-to-day operations of governmental and non-governmental institutions responsible for production practices."

At the Outcomes level, the choice of indicators was more appropriate, and more directly related to livelihoods and governance. Each Outcome is to be achieved through a group of activities producing measurable outputs, and the detailed log-frame used in annual reporting provided an effective management and monitoring tool.

4.7 Stakeholder participation

The Project Document states that 'the preparation team undertook extensive consultations with interested parties through a series of presentations and workshops during the preparation phase'. An ecotourism specialist was engaged to systematically interview stakeholders in the tourist sector. The project team held workshops with community-level resource users, resource managers and tourism operators during the design stage. These wide-ranging consultations were undertaken to ensure that stakeholders at all levels were aware of the project and its objectives; stakeholders assisted in the identification of threats to biodiversity conservation and their root causes; existing monitoring and mitigation strategies are acknowledged and integrated into the project; and differing stakeholder capacity needs across the different production sectors were accommodated during the design phase and its later implementation.

The level and effectiveness of stakeholder participation in this project was strengthened by the background provided by the ODMP process, and by the strong tradition in Botswana of local public consultation through participation in conflict resolution at the village level.

4.8 Ratings for Project Formulation

The Concept/ Design of the project is considered **Satisfactory**, while Stakeholder Participation in project formulation is rated as **Highly Satisfactory**.

5. Findings: Project implementation and management

5.1 Project governance

5.1.1 Management structure and institutional arrangements

The Project management structure comprised a Project Steering Committee (PSC), a Project Assurance Group (PAG) chaired by the UNDP Country Office, a Project Management Unit (PMU) at ORI, Reference Groups and Stakeholder Consultative Forums.

The Project Steering Committee was chaired by the Department of Environmental Affairs, which was effectively the project's 'owner'. The DEA serves as the National Focal Point to the CBD, Ramsar, CITES and other MEAs, and was thus well placed to provide guidance on global trends in biodiversity policy and strategy to the Project team. The PSC was responsible for making executive decisions for the project and providing guidance (institutional, political, and operational) as required by the project management. The PSC provided oversight and communication to the project from throughout the public and private sector and donor community and vice-versa.

The PSC members had an opportunity, indeed a responsibility, to have influence on their parent organizations in furthering the mainstreaming aims of the Project. In a number of cases, PSC members did follow up this mandate. However, it was felt by some observers that this responsibility was not taken up sufficiently strongly, and that an opportunity was missed to spread the impact of the project in government and civil society bodies, and to achieve greater financial, logistical and staffing sustainability for project Outcomes. Participation in PSC meetings was generally good, but some members were less regular in their attendance than others, and missed the opportunity to make useful contribution.

The PSC achieved its aims through the National Project Coordinator (NPC) of the Project Management Unit. The Project Management Unit was based at the University of Botswana's Okavango Research Institute (ORI – formerly Harry Oppenheimer Okavango Research Centre - HOORC) 15 kms outside Maun. The NPC and team were provided with excellent office accommodation and support facilities at ORI, which itself is a hub of environmental research, discussion and intellectual development focusing on the Okavango.

The National Project Coordinator was directly involved in the development of the Project Document, and has extensive experience as a professional in various capacities in Botswana, ensuring a seamless transition from project planning to implementation.

The PMU was staffed by a small but competent team of specialists with experience in range management, wildlife management, fisheries research and limnology, and tourism, with financial administration and secretariat support. The ambitious nature of the project, covering a very wide range of technical fields, placed serious challenges on the PMU capacity. This is particularly evident in terms of assessing some of the consultants' reports and recommendations, where extended experience or specific technical knowledge was needed to evaluate some aspects.

As noted in section 4.3 above, the location of the Executing Agency and PMU within the University of Botswana system brought a strong reputation for sound financial management. However, the centralized accounting and approval system for procurement and staff recruitment, at a remote distance from the ORI in Maun and with regular communication difficulties, resulted in considerable delays in the first 12-18 months of the project. These delays resulted in the late start of most pilot projects, which had a knock-on impact on the level of progress achieved (see Section 6). Fortunately, although belatedly, this problem was recognized and in order to provide the PMU with the capacity for day-to-day operational

decisions, the PSC (based in Gaborone) approved the establishment of a BioKavango Project Management Committee (BPMC) in 2008. Component managers were granted responsibility for delivery and reporting through regular meetings with the NPC.

The BPMC was chaired by the Deputy Director of ORI. It included expertise in public health, anthropology, planning, tourism, and financial management, and with the PMU's capacity in rangeland ecology, fisheries and aquatic ecology, wildlife biology and tourism, natural resources management and community development, a strong body of expertise was available for project guidance and implementation. The BPMC ensured good governance in the project at an operational level, with the chair providing high-level representation on the PSC. It also ensured that the project operated within the contractual requirements of the UNDP, complied with UB policies and procedures, and ensured capacity-strengthening by the project for UB/ORI.

In addition to hosting the PMU, the University of Botswana also provided administrative support, and as project Executing Agency, was ultimately responsible for fiduciary and audit matters. The financial management of the project appeared to operate smoothly, with payments to some service providers somewhat slower than ideal.

The original project management structure included Technical Advisory Groups, but with intermittent attendance, these were replaced by Reference Groups appointed by the PMU for specific tasks such as guidance in the formulation of the Terms of Reference for Consultants, and the review of their reports.

The Stakeholder Consultative Forums were intended to ensure that grassroots inputs are available to guide and monitor project progress. The Okavango Wetland Management Committee (OWMC) served this function.

Stakeholders consulted during the TE indicated that the Project team worked well together with each other and the PMU, and with its project champions and other stakeholders. Management structures were modified when necessary during the course of the project (establishment of the BPMC; restructuring of Technical Advisory Groups; appointment of a deputy to the NPC) to improve effectiveness.

The frequency of contacts between the PMU team and stakeholders was constrained by logistics, and by the difficulty in placing field staff in remote centres, e.g. the reported difficulty of recruiting a Community Conservation Officer (CCO) who was willing to live in Shakawe. This was a problem that limited the effectiveness of the project, since physical presence is key to mainstreaming, and grass-roots interactions on a day-to-day level were limited.

Attendance of meetings by some stakeholders has been less than ideal, but was accounted for by the PMU as a consequence of 'participation fatigue' rather than lack of commitment. The National Project Coordinator and the PMU team were successful in establishing an effective network of partners beyond the formal structures of the project, which played a key role in ensuring the effective implementation of the project.

Project governance was considered **Satisfactory**.

5.1.2 Project coordination and the role of UNDP

The UNDP Country office in Gaborone has administered a successful National Environmental Support Programme in Botswana for many years and has therefore built a strong network within government, NGO and private sector stakeholders in the country's biodiversity. It has had close involvement with the development of the ODMP, and as a committed party to its

implementation, was an obvious choice as a funding partner. UNDP has extensive experience within the region in the successful implementation of GEF Biodiversity Focal Area projects, and has played a leading role in developing the conceptual framework of the mainstreaming model in biodiversity conservation.

In general, the UNDP Country Office played a positive supporting and oversight role, particularly in the first few years of project implementation. The Mid-Term Evaluation found, as of early 2009, that a strong and positive relationship existed between the UNDP CO and the BioKavango PMU, and no reports of administrative, management or intellectual differences were heard regarding the relationship.

In the latter years of the project, however, there were several instances where quarterly financial payments were delayed, sometimes by more than a full quarter. Responsiveness to technical issues was also occasionally delayed or lacking. There had been additional staff in the Country Office during the early part of the project period, and when these personnel departed without replacement, administrative capacity inevitably suffered. There should have been adjustment for these changes, so that project implementation did not suffer, yet there was little evidence of such an adjustment. Fortunately, the University of Botswana had sufficient financial resources to advance funds to the project account, so there was no interruption in activities, but this should not have been required of an Executing Agency.

Project coordination over the life of the project was considered **Moderately Satisfactory**.

5.2 Implementation approach

5.2.1 The Log-Frame and adaptive management

The use of the Logical Framework Approach is a fundamental pillar of GEF/UNDP project management and performance monitoring. It is thus the first point of reference for any project assessment, such as PIR and TE. It is implicit, in using the LFA, that a high coherence exists not only between the log-frame elements – objective, outcomes, activities and outputs as described in the Project Document - but also in the day-to-day operations of the project.

The log-frame appears to have been a very useful structure for the control of workplans and budgets and for reporting on these elements. However, at the time of the Mid-Term Evaluation, coherence is obvious in the activities and reports. By the time of this TE, the integration of activities across components had developed so that the log-frame appeared to be much more integrated into regular project reporting.

The project's success indicators (at project objective level) have been fixed since commencement, and cannot and should not be changed, but as noted above, they weaken the development of a case for the success or otherwise of the project, which will be measured against the objective indicators rather than the more relevant sustainable livelihoods outcomes, which appear lower in the analysis hierarchy.

An internal PMU mini-workshop was held during the MTE which reviewed the 2008 version of the log-frame and made several suggestions on improvements to its logic. It was felt at that time that the potential use of the log-frame as an adaptive management tool was not been fully exploited and the opportunity to ensure stakeholder buy-in was being missed.

An additional log-frame workshop was held in October 2009. At this workshop, there were no significant changes to the details of the log-frame but greater emphasis was placed on the livelihood indicators on their reporting in Quarterly and Annual reports and in the accompanying PMU meetings. This renewed emphasis resulted in an improved approach to

adaptive management, with regular reporting against the log-frame and more attentive responsiveness to developing situations.

The Log-frame and adaptive management were considered **Satisfactory**.

5.2.2 Stakeholder participation

As noted in the previous section, the BioKavango Project was designed and grew out of the very strong background of stakeholder participation developed during the ODMP process. Stakeholders at all levels were, in this way, involved in project implementation.

Many activities involved the mobilisation and empowerment of stakeholders in joint management committees, conflict resolution mechanisms and participation in activities. In specific stakeholder consultations, BioKavango employed external, independent specialists to lead the building of the technical capacity of participants and to mediate between contesting interests. This approach was particularly effective in dealing with previously alienated or vulnerable groups (e.g. the integration of indigenous minority communities into commercial fishing activities at Mohembo), or conflict situations (e.g. between traditional commercial fishers and tourist operators in the Upper Panhandle; between local farming/ fishing communities and the tourism concession holder in the Tubu-NG25 area).

The BioKavango team recognized fully the need for repeated interaction, rather than one-off meetings or training courses. In the example of the Tubu Joint Management Committee, there were several workshops with documentation, plans and procedures adapted to participants with limited literacy skills. The approach was stepwise, starting by establishing an agreed Code of Ethics for the JMC and following with more targeted activities of land use planning, which were fully participatory at all stages. There was a challenge to include the involvement by a wide range of stakeholders on a regular basis; during the time of the project, the funding and project staff allowed meetings and workshops to be held but there remained a deeper problem of incentives for longer term attendance, particularly after the project term. This challenge was faced by many of the pilot projects.

A risk with any stakeholder engagement is the development of high levels of expectation of the delivery of benefits. Failure to deliver can result in resistance or rejection of interventions later in the project, or in follow-up activities. Many of the groups visited during the TE expressed some frustration with the short term nature, or in some cases incompleteness, of the results that had been achieved during the relatively short period of implementation. Examples include the cultural tourism facilities at Ngrarange and at Tubu, and there was a general lack of confidence-building about the sustainability of project activities without external support. Most groups, however, also recognized the positive outcomes of BioKavango, particularly the role it played in reducing tensions between competing resource users, a result which many considered to have long term potential.

Another significant challenge to effective mainstreaming in rural areas is the difficulty in transferring responsibilities to local stakeholders, who may lack basic literacy, organizational skills and, critically, the confidence to undertake new approaches to livelihoods. This lack of capacity is coupled with limiting social issues, such as traditional power structures, as well as the environmental challenges of subsistence livelihoods in marginal environments. Expectations of successful transfer of complex concepts (e.g. mainstreaming biodiversity conservation) or commercial activities (e.g. sustainable, market-based fisheries) are simply unrealistic if pursued in the short-term, such as the term of a five-year project. The development and maintenance of effective stakeholder participation is a long term process.

There was considerable variation in the strength of local institutions that participated in the project. This strength appeared to derive, at least in part, from the personalities of the

individuals who were in key positions. For example, the Manager and/or Chairperson of some of the groups visited seemed to be optimistic and effective, while the corresponding officer in other groups appeared rather defeatist and dependent on outside support. Another factor affecting stakeholder participation in these institutions is the need for transport, food or accommodation, and a meeting venue; even in Village Development Committees must apparently provide allowances to sustain participation. BioKavango provided such support, resulting in well-attended meetings with positive outcomes, but the sustainability of this process is not planned. Training workshops with, for example, the OFA have emphasised the need for community groups to take ownership of responsibilities such as fund-raising to ensure continuity, but it does not appear that this advice has been followed. This message does not seem to have been taken to heart by many stakeholders, at least in the Shakawe area or at Shorobe (although in other areas, such as Ngarange, there is a higher level of motivation and confidence).

Stakeholder participation was rated as **Satisfactory**.

5.2.3 Information management

Knowledge management played major role in all project Outcomes, providing a documentary resource for all stakeholders in the Okavango Delta, and beyond. There were several aspects to the knowledge management programme:

- strengthening of the role of the ORI library in archival work, cataloguing and retrieval, and outreach;
- development of the Okavango Delta Information System (ODIS) – already in place on separate hard disks as a source for sharing geographic and textual information between users in government and other institutions – into an online resource. This facility includes the opportunity for email feedback, the possibility – indeed encouragement – for registered users to upload data from their respective sectoral areas to allow it to be shared. Monitoring of use by ORI staff indicates that the take-up of this data-sharing facility among government departments has been limited to about 10 users so far, largely because of a general lack of internet capacity;
- maintenance of the project website as a means for accessing reports and disseminating information;
- production of reports and published papers;
- holding international scientific meetings.

The project provided considerable support for the development and improvement of the knowledge management infrastructure and systems at ORI. Very competent staff were recruited and trained, and remain in post to date. This capacity will be sustained by the University of Botswana, and will therefore remain in place as an important source of information for anyone, or any group, with an interest in the Okavango and in the principles developed during project implementation.

A few problems were encountered during the course of project implementation that affected the delivery of effective knowledge:

1 The document component of ODIS is not fully integrated with the ORI library information system, with a catalogue of reports and publications that is separate from that of the library. Its report listings should have better linkage with the library's publication catalogue, which is more sophisticated and comprehensive.
2 According to former and current Library staff, document cataloguing and retrieval was not integrated into project implementation from the outset, so that copies of all BioKavango reports, workshop results, meeting minutes, publications and other material could be directly stored and made available readily after project completion. Internally, there was a shared electronic filing system (BioKavango Shared Files) which all project

staff could access and deposit/share any information on anything about the project; the filing was done per project component, with various subsections. This shared filing system was well managed internally by the PMU and at the end of the project the transfer to the UB-ORI Library to form the BioKavango Collection has been initiated as part of the exit strategy. The ORI Librarian is at work on this process and expressed the concern that complete retrieval and cataloguing could be more difficult than if the process had been initiated earlier.

3 The regularity of posting of information in the public areas of the BioKavango project website has been uneven. Some Outcome areas were well-documented with accessible copies of reports, while others hold only brief narrative summaries. The future of this website is now to pass to the UB-ORI library.

4 The library received donation of a computer server that was to be dedicated for its exclusive use, which greatly improved its ability to function. In practice, however, the IT group at ORI made use of this server for more general data storage. Unfortunately, the server then suffered a hardware crash, with the loss of valuable meta-data from the Pete Smith Collection. Even more unfortunately, the data on this server was not backed up, so the information was permanently lost. This episode is an example of a drawback of the integration of the project within the Research Institute: boundaries were not clearly defined between the library system and the general ORI computer network, and support/backup systems were not sufficiently identified and enacted. Clearly, there should be provision in ORI's Business Plan for more effective mechanisms to ensure that such back-up systems are in place to protect this very valuable resource.

The information management aspect of project implementation was considered **Moderately Satisfactory**.

5.2.4 Risk management

There was clear attention to risk assessment during project formulation, and this attention continued during implementation. All quarterly and annual reports in the early years of the project made specific reference to risk issues, with mitigation measures proposed and, apparently, acted upon. A separate Risk Log and Issues Log was prepared every year by the PMU, with mitigation actions proposed and reported on.

Risks identified in the End of Project Report[4] included:

1. Local governance structures in the Okavango River Panhandle, set up to co-manage fisheries resources, may fail to receive support from Government and other players due to systemic problems or breakdown in relations between stakeholder groups.
2. Slow delivery or implementation of the ODMP, which was to play as key sustainable development baseline for the BioKavango Project. Most components of the ODMP are yet to be implemented, and this has meant that the BioKavango project went without the necessary support in some cases, during its implementation phase.
3. The three riparian countries of the Okavango River basin fail to reach a mutual consensus on water sharing arrangements. Such a situation would pose serious threats to biodiversity conservation in the downstream, the Okavango Delta.
4. Increase in external development pressures, beyond projected baselines (especially on water extraction, fishing and tourism).
5. Introduction of non-native fish species and diseases into the Okavango system from Aquaculture (within Botswana and upstream).

Management responses were proposed for each of these risks. The control and mitigation of risks was in some cases outside the ability of the project team to address – e.g. the lack of an

[4] BioKavango Project. 2010. *End of Project Report/ Lessons Learnt Report*. Draft Final, 15th July, 2011.

enabling systemic environment in the Botswana government to support co-management, the international economic recession which occurred in the middle of project implementation and resulting in a spending and recruitment freeze by the Government of Botswana, the international tourism market experiencing a downturn – but these risks were acknowledged by the PMU and consequences were identified.

Overall, the attentiveness to risks and issues formed part of an effective adaptive management approach. Risk management was considered **Satisfactory**.

5.3 Financial and procurement management

5.3.1 Financial planning and management

Financial budgeting and expenditure

In early stages of the project, implementation of expenditure often fell short of plans for upcoming periods, with under-spending variances generally reported. The Annual Reports provided comment on the causes of variances, and while they did not make specific mention of decisions, it appears budget was adjusted to respond to changing situations of staffing, without deviating from the agreed log-frame. The PSC was empowered to make internal adjustments within the budget, with UNDP approval, and it seems that the management of the operational budget to respond to changing situations is effective as an adaptive management tool. An example of this is the restructuring of staffing and funds to address the need to provide the NPC with support, to appoint a Water Component Coordinator at a higher rank than originally provided, and to appoint a Community Conservation Coordinator in Shakawe with incentives beyond those originally budgeted.

Financial controls and audit

The project accounts and performance were subject to independent audit, generally by Price WaterhouseCoopers, on an annual basis. Indeed, all audit reports from the beginning of the project, including the final audit report, indicated that the financial controls and administration by the Executing Agency – University of Botswana - complied with best practice. Their findings indicated that annual work plans showed no significant difference from Project Budget Balances, balances reconciled between Expenditure Detail Reports and the Combined Delivery Reports, and all salaries, consultancy charges and volunteers' payments were consistent with contracts.

The Audit Reports further noted that monitoring and evaluation was carried out effectively, in line with the Project Document. Overall, the financial controls and administration of UNDP funds allocated to the project were fully compliant with the standards required.

Cost effectiveness

The use of funds by the BioKavango Project appears to have been effective and without wastage. The only activity that had to be terminated was that in partnership with the University of Virginia, on Monitoring Riparian Woodland – but here the decision to terminate the project - due to failure of obtaining expected co-financing – was timely and with limited opportunity cost or direct cost to BioKavango.

Financial planning and management was rated as **Highly Satisfactory**.

5.3.2 Co-financing

Co-financing commitments, from government departments and the private sector in particular, were strong, and ultimately the amounts contributed exceeded original commitments made during project formulation (Annex 8).

The strong national and international support for BioKavango is demonstrated by the scale of co-financing commitments from all partners. The Project Document indicated co-financing of US$12,130,000, while by the time of the TE, commitments stood at US$17,620,700. Actual disbursements were estimated by the PMU to correspond to this latter figure, but it was not clear to the Evaluator whether all in-kind commitments were in fact disbursed.

The co-financing component of project implementation was rated as **Highly Satisfactory**.

5.4 Monitoring and evaluation during implementation

5.4.1 Project monitoring, the LogFrame Matrix, and adaptive management

The logical framework matrix provided SMART Outcome indicators for project implementation, along with their means of verification. These indicators formed the base on which the project's M&E system was built. Monitoring and evaluation was conducted according to established UNDP and GEF procedures. Quarterly progress and financial reports were prepared by the PMU and submitted to the PSC. Joint Annual Project Reviews were undertaken by the PMU, UNDP CO, UNDP Regional Office and the GEF Focal Point (in the DEA). Project Implementation Reviews were undertaken in all years.

The timeliness and quality of reporting by the PMU was highly satisfactory. As is often the case, an optimistic view is expressed on most issues, often a little too generous given the challenges to meeting certain objectives.

One weakness of the project design was that there was no specific budget or staff provision allocated to M&E within the project itself. The NPC was responsible for managing all M&E, with no specific project staff member assigned this role. In this role, the NPC managed the process very effectively, given the project's high degree of complexity. However, the duties for project monitoring, on top of all the effort required for coordination of implementation, were very demanding. In retrospect, the project would have benefitted from the designation of a specifically-tasked officer with M&E duties, with a budget attached. Certainly any future projects of similar, or greater, complexity would need such provision.

5.4.2 The Mid-Term Evaluation

A thorough Mid-Term Evaluation was conducted in April 2009. It was generally very positive about project formulation, implementation approach, results and prospects. Specific recommendations for improvement were made.

A management response was prepared by the PMU, with specific actions proposed to deal with the recommendations. These actions appear to have been followed. Following the external mid-term review of the project, stakeholders were engaged in the review of the project Logframe, where existing indicators were retained but greater emphasis was placed on additional livelihood indicators during reporting. A review of the pilot projects in terms of their ability to achieve their objectives was strengthened, with actions taken to improve their sustainability.

5.4.3 Replication approach and sustainability

The project provided a number of lessons on the viability of mainstreaming biodiversity conservation through production sectors. The degree to which these lessons are applicable to other areas will vary widely.

Within Botswana, where the development of an enabling environment of improved legislation and of individual and institutional capacity is a primary element of the project, the replication of best practice should be relatively uncomplicated. This direct transfer will apply most readily to projects in other wetland areas, such as the Chobe – Linyanti and the Makgadikgadi. It should be noted that a preparation phase, similar to the ODMP development process, would be needed. Replication in dryland areas of Botswana would require additional technical aspects, but the principles established would be similar.

The Project Document provided a replication strategy, with ambitious but relevant interventions aimed at extending the impact of BioKavango. A budget of US$1,165,000 was apparently proposed for the implementation of the replication strategy, but funds for the strategy were not included in the existing project budget. The targeted interventions applied mostly to national application, and many of the interventions could be initiated within the existing budget or within the proposed NDP10 budgets.

Replication beyond Botswana is less straightforward. Mainstreaming is dependent on a wide range of prerequisites, as described in section 4.1. Few countries in southern Africa share the combination of good governance, economic strength and strong environmental responsibility that is enjoyed by Botswana. Without these prerequisites, the ability to transfer the core lessons learned would face greater challenges.

These concerns do not reduce the importance of the project. It was essentially a pilot to test a general hypothesis, and as such it is of global relevance. The MTE advised that actions be taken to mobilize the replication strategy, at least for activities within Botswana, primarily to retain the skills developed in BioKavango but also to test the wider application of lessons learned. It is not clear whether this recommendation for a specific replication was followed, but certainly the “BioChobe” has been recently developed to approval of its Concept document.

Monitoring and Evaluation during project implementation was considered **Satisfactory**.

6. Findings: Results and impacts

6.1 Results achieved

Brief summaries of the Objective and Outcomes are provided below, with an explanation of the ratings of success level. Full details of the progress achieved in meeting the project Objective, Outcomes and Outputs are provided in project reports and summarized in the Logframe and GEF Mainstreaming tracking tool, to be found in Annexes 6 and 7.

6.1.1 Attainment of Objective

Objective
"Biodiversity management objectives are mainstreamed into the main production sectors of the Okavango Delta."

Indicators
- Populations of wetland indicator species sustained
- Total production landscape under improved conservation management

As has been noted previously, the Indicators for this Objective were not particularly SMART, in being difficult to quantify and to attribute to project initiatives. Some of the increase in target wildlife species could be due to the recently increased water flow in the Delta, and improvements in wildlife habitats, rather than effective implementation. It is not possible to know whether the same results would have occurred in BioKavango had been undertaken in the context of the lower water levels prevalent during the 1990s and early years of this century, but there would have been a better test of the mainstreaming, ecosystem approach under such conditions.

Despite these caveats, it does appear that Outcomes contributed to a successful overall implementation, and its attainment is rated as **Satisfactory**.

6.1.2 Achievement of Outcomes

Outcome 1
"Enabling environment strengthened at both systemic and institutional levels."

Indicators
- Biodiversity management actions recommended by OWMC implemented by District regulatory authorities
- Joint management committee decisions implemented on resource use
- TLB lease agreements specifying biodiversity management requirements
- EoP Budget allocation made for implementation of ODMP
- ODMP approved as the over-arching District planning tool by Parliament
- Wetland conservation plans and actions are integrated into production sector strategies in the rolling Botswana National Development Plans.

Significant progress made in this Outcome area, with regulations, guidelines and manuals produced that will have long-lasting impact. Key Outputs included revised WMA regulations (carried through to late draft stages, awaiting confirmation by end of year), an integrated lease agreement developed in collaboration with the Tawana Land Board (TLB), a Biodiversity Friendly Training Manual developed for the TLB, harmonization of the NW District Integrated Land Use Plan (ILUP) and Tourism Development Plan, and identification of tourism related sites (in a GIS-based format) in the Okavango Delta Ramsar Site (ODRS).

These Outputs and activities were executed either by consultants or by the project's Biodiversity Coordinator, who was placed in the TLB to work alongside its staff members, who are certainly aware of BD issues. A Land Use and Natural Resources Division was established at the TLB, currently staffed with a Senior Land Use Officer and there was an intention to replace the Biodiversity Coordinator supplied by BioKavango with an appointed TLB staff member. By the end of the project, this appointment had not been made and it is not clear when (or whether) such an appointment will be made.

The ODMP has not yet been approved by Parliament, but it has been adopted at District level. The Okavango Wetland Management Committee (OWMC) was revived and established as a sub-committee of the District Development Committee. As such, it plays a key role in the work of the District Land Use Planning Unit, and a number of recommendations and decisions concerning land use in the ODRS have been made. The current District Officer for Development, relatively new in his post, is enthusiastic about environmental issues; it is clear that action on BD implementation can vary enormously depending on the personalities of key personnel.

Wetland conservation plans and actions outlined by the ODMP were integrated into the text of NDP10 and DDP7, although no budget was allocated for implementation of these activities because a spending freeze was declared by Government in the wake of the international economic recession in 2009. It is hoped that a mid-term review of the Development Plans will result in the resumption of financial commitment to these activities.

Knowledge management systems were enhanced in a variety of ways, including:
- development of ODIS as an online resource for data storage and information dissemination/sharing at local, national, and international levels
- cataloguing and digitizing of grey biodiversity literature from the Pete Smith, Richard Bell, and Peter Heinz Collections
- equipping of and training staff for a modern herbarium/natural collection facility derived from Pete Smith's personal collection
- establishment of connections with school libraries throughout NW District, and other outreach activities
- maintenance of a BioKavango project website, with project reports and activity summaries available
- capture of project documents in a BioKavango Collection initiated at a late stage.

As noted in Section 5, there were some significant short-comings in the implementation of knowledge management activities, namely the lack of integration between ODIS and the ORI library catalogue system, the lack of a coherent approach to documentation of ALL project products from the outset (action on a BioKavango Collection has only just been started), and the failure to provide security for digital record-keeping (and subsequent loss of valuable meta-data from the Pete Smith Collection. These short-comings represent lost opportunities.

In view of the significant achievements, balanced by some deficiencies, this Outcome is given an overall rating of **Satisfactory**.

Outcome 2
"Biodiversity management objectives integrated into the water sector."

Indicators
- % Change in crown cover of riverine woodlands responsible for regulation of water table
- % Change in relative proportions (1:1.6) of permanent and seasonal flooded areas
- Hydro-ecological scenarios and models in place for assessment of large scale water harvesting (development) proposals in the Okavango River Basin

The water sector component has been effectively involved in biodiversity-conserving awareness and actions, at international, national and local levels. In its original formulation, the component did not have a specific coordinator, with its activities directed by the NPC with support from the coordinator of Outcome 4 (Fisheries). The decision was taken in 2008 to appoint a staff member with duties aimed directly at water issues.

The first two Indicators for this Outcome were addressed in early stages of the project, as it was realized from that their status was generally good and was dependent more on variable flow regimes than on biodiversity mainstreaming activities. Mapping of the extent of the invasive plant *Salvinia molesta*, with a view to its control, was planned for this Outcome area; in practice, the control activities were taken up in coordination with the private sector.

The third Outcome indicator was an area of considerably more activity. On the scale of the Okavango Basin, the Environmental Flows and Trans-boundary Diagnostic Assessment processes were completed in coordination with the EPSMO project. An important Output of BioKavango was a Decision-Support System (DSS) model including hydrological, ecological and socio-economic responses to land use alternatives in the greater Okavango, was developed as a tool for evaluating land use options, informing decision-makers and, hopefully, reducing downstream impacts. It is still somewhat technical in its format and there is an apparent need for more a user-accessible approach, as well as training in its use, to allow it to be a more effective communication tool.

The DSS is housed at the OKACOM Secretariat, based in Maun, which was supported by the project. Other products supporting OKACOM and developed together with EPSMO, include the Strategic Action Plan developed for the whole Okavango Basin, and Botswana's National Action Plan. The profile of integrated planning of water use at the level of the Okavango Basin was raised by the project's participation, in collaboration with OKACOM, EPSMO and DEA, in a seminar during the 2009 World Water Week in Stockholm. The project made a keynote presentation on "Integrated Flow Assessment – A case of the Okavango River Basin", bringing the issues facing to the attention of the international community.

Another key Output was the pilot water quality monitoring programme initiated by BioKavango for the Okavango Delta, with analysis undertaken by the ORI laboratories. Eight monitoring sites were established, and early results revealed interesting, and somewhat unexpected, results on dissolved oxygen and sediment loads in flood pulses, both lower than anticipated; spatial variation in water quality across the Delta was also noted. These sites have formed the basis for a systematic water quality monitoring program for the whole Okavango Delta, which is being taken up by the DWA, which has now established its own water quality lab in Maun. At the same time, a more comprehensive environmental monitoring programme has been developed within ORI itself, with the intention to carry it forward.

In view of the significant achievements after an initial slow start, Outcome 2 is given an overall rating of **Satisfactory**.

Outcome 3
"The tourism sector is directly contributing to biodiversity conservation objectives in the Okavango Delta."

Indicators
- % of tourist establishments meet minimum BD friendly certification requirements
- Increase in total investment by tour operators in wetland management
- Pilot sewage effluent polishing systems in place in tourism establishments

Work in this Outcome area covered a range of activities, from the systemic to grass-roots levels. The appointment of a Tourism Coordinator was delayed by financial/ administrative management issues (discussed in Section 5), so it was not until 2007 that the first tourism specialist was hired. This person resigned from the project in 2008 and, within a few months another tourism specialist was recruited, who then worked for the project until 2010. Once in post, the second Coordinator engaged rapidly and the component benefitted by support from a number of successful consultancies.

At the broad level, a successful Output was the development, with the evolving government body that is now the Botswana Tourism Organization (BTO), of a Botswana Ecotourism Certification System (BECS). Eco-certification standards were drafted to international criteria and benchmarked against those of the USA and Australia before implementation; the resulting model is among the most rigorous in the world. Efforts are underway with the Botswana Bureau of Standards to harmonize the BECS with "star standards" system and, eventually, to make green standards compulsory.

Initial take-up of the BECS among operators in the Okavango Delta has been encouraging and in the longer term should provide a self-sustaining incentive, an alternative to top-down regulation, for private sector engagement with environmentally-friendly approaches. There has been an Increase in the total investment by tour operators in such approaches, including reverse osmosis treatment for drinking water, recycling of materials and waste treatment (see below). The early investment has come from operators who were already willing and engaged; the challenge in the future will be for BTO to reach a broader constituency.

Resources for inspections are currently supplied free of charge by BTO but are proving to be limited; this limitation will slow the take-up of certification. It has been suggested that the costs of certification may be devolved to the private sector in the longer run. Another challenge is that the tourism industry is not well-coordinated, since HATAB is not particularly effective apart from as a lobbying body, and the engagement with BOGA (with plans for unification of the two groups moving slowly) has been protracted.

Another useful Output was the study of "Willingness to Pay for Conservation in the Okavango Delta", indicating the potential for a significant direct contribution of resources by tourist visitors, possibly to an Okavango Delta Fund, or some similar instrument.

There were a number of initiatives relating to the treatment of liquid waste in the Delta environment. Pilot projects using constructed wetlands for waste treatment at three sites have shown moderate and varying success, with high capital costs (but low running costs) and some technical problems still requiring support. A study that monitored sewage effluent quality assessed the relative merits of different liquid waste polishing systems, suggesting that a variety of approaches could be appropriate to the circumstances of private vs. community-run operations. Other useful Outputs included a District Wide Sewage Management Workshop and a Best Practice Manual for the Handling, Transportation, and Storage of Hazardous Substances, as part of the Liquid Waste Management Guidelines for the Okavango Delta.

Conflict reduction efforts between private sector and community groups, specifically in the Tubu/NG25 area, proved successful groups in tourism activities has had some success in the areas, but with delays in start-up, needs continued support. The Shorobe Basketry Group, which had been supported by other projects in the past, was moved forward by BioKavango and combined with an effort to establish a plantation for source materials (a long term undertaking). The need for continued support was expressed by stakeholders, and support for business skills and operational confidence is likely to come from the SAREP project, currently getting underway.

A participatory land use management plan, including tourism development and the monitoring of resources by local rangers (an adaptation of the MOMS approach) was developed at Tubu with the help of NRP consultants. Stakeholder engagement remains high but support is still needed to achieve sustainability, and fortunately the SAREP and DARMA projects are preparing to take up some of these activities.

Support for DWA's Aquatic Vegetation Control Unit (AVCU) programme of control of *Salvinia molesta* was built with private sector tourism operators. Biological control and monitoring systems were taken up, with the training of engaged staff members, by some key lodges with some interruption occurring with the turnover of managers at some locations. Considerable success in controlling the invasive plant has been achieved, with the additional benefit of the interest shown by tourists themselves.

In summary, the tourism component made a number of significant achievements, but since it had a slow start some activities need continued support. This Outcome is given an overall rating of **Satisfactory**.

Outcome 4
"Biodiversity friendly management methods are inducted into fisheries production systems"

Indicators
- % area of fish production wetland under improved fisheries management systems
- % change in catch per unit effort (CPUE)
- Aquaculture BD guidelines and regulations produced

This component has had mixed success, with its strongest achievements coming from the reduction in conflict between commercial fishers and lodge owners. With the revival of the Okavango Fishers Association (OFA) and Okavango Fisheries Management Committee (OFMC), a Code of Conduct launched in early 2010 – requiring compromises on all sides – was established. It appears to be well-received and generally respected, with good prospects for sustainability. The Code has enhanced the local participation of the different stakeholders and the different governance structures (such as OFMC). However, the ability of OFMC to continue as a coordinating body is limited by resource constraints which limit its ability to hold meetings. The members have not established a self-sustaining financial mechanism to support its operations, and its effectiveness is determined by the commitment of individual members and office holders, which is variable at best.

The OFMC has also set-aside areas (fishing free zones) to create a refuge for fish to breed, grow and replenish stocks. Monitoring and research on various aspects of fish spawning, growth, etc takes place in the set-asides, as well as other areas of the Delta. A key aspect of the set-asides is the additional compromise between commercial fishers and lodge owners, further reducing the points of conflict, which was at least as important as biological considerations.

A key theme of mainstreaming is that biodiversity-friendly management must be accompanied by improvement of livelihoods for resource-using communities. Pilot projects aiming to support fishing syndicates at Samochima and Mohembo achieved some success in improving operations of the commercial fishery, building on earlier support from the Ministry of Agriculture's Financial Assistance Programme (FAP), GEF small grants programme and TOCaDI. The material support and training in business skills – while welcome – were limited, however, and these groups still have some way to go towards sustainability of operation. Hopefully, the SAREP project can assist with the development of positive approaches.

A key Outcome was to be the monitoring and ownership of catch statistics by fishers themselves. This activity was improved, with data forms completed by commercial

syndicates and data entry into appropriate software by the Fisheries Division of DWNP. However, the activity remains limited and is strongly dependent on funding and staffing allocations within DWNP and MEWT, which are currently inadequate. The DWNP office in Shakawe has no electricity, vehicles are limited, staff numbers are low and turnover is high, while duties are shared between fisheries and wildlife management (largely Problem Animal Control). These problems are not limited to the Panhandle area alone; DWNP/Fisheries resources are inadequate at the scale of the whole Delta, and on a national level. Without a renewed commitment of funds and personnel, this key support to fisheries will suffer.

On a more positive note, research by staff at ORI, based on long-term catch statistics, indicates that the fish resources of the Delta are not being over-harvested, apart from perhaps at very localized scales, and are more dependent on flood regimes than the relatively low human pressures. There is a challenge to get this message out to, and convince, all stakeholders of this evidence – some tourism operators remain convinced that over-harvesting remains a threat.

Aquaculture guidelines were successfully developed and established, for the Delta and for the country as a whole. This is a significant achievement, since while fish farming can deliver livelihood benefits to participants, there are strong risks from disease and exotic species in the sector, if not properly controlled.

The fisheries component made a number of significant achievements, but several of its activities require continued support and resources appear to be lacking. This Outcome is given an overall rating of **Satisfactory**.

6.2 Benefits to participants

The Project Document presented a detailed participation strategy indicating the expected benefits to stakeholders. The stakeholder strategy appears to have being fully and effectively implemented at the activity level. The challenge of any such strategy is many participants may experience 'participation fatigue' and disappointment of previously raised expectations. Despite this, the TE found (as did the Mid-Term Evaluation) that all participants interviewed were very willing to make time for discussion, and all expressed satisfaction with their level of involvement.

All participants interviewed seemed to have a clear idea of the benefits they received from the project, and some groups (Tawana Land Board, Ngarange and Tubu Community Trusts) appeared to have confidence of their ability to move forward on the basis of the start they had been given by the project. Others (the fishing syndicates in the Shakawe area, the Shorobe Basketry Group) appeared to think that they still needed external assistance to maintain the benefits achieved. Fortunately, there are other projects currently underway to take on some of the activities (and this continuity was requested by the NPC), so that the gains can be consolidated.

The challenges are both socio-economic and technological. As an example of the former, the issue of conflicts around access to fisheries resources and the difficulties in addressing these will be used.

6.3 GEF/ UNDP Mainstreaming Effectiveness Tracking Tool

During the TE, a meeting with the NPC was held to review the Tracking Tool results in preparation for submission to the UNDP Country Office and Regional Office. The version available at the time of the Evaluation is attached as Annex 7.

The Tracking Tool is obviously a useful source of generic information of progress in mainstreaming across all GEF/UNDP projects but, as noted in the Mid-Term Evaluation, the individual data sets and the aggregated results may be of limited value in tracking significant impacts. This is especially the case in view of the Objective level indicators, whose impacts are quantified in terms of hectares influenced by improved management practices, or estimates of population size of indicator species.

The questions relating to qualitative impacts, such as enabling activities, are difficult to quantify but may have very significant positive impacts – such as the setting up of a Biodiversity Coordinator's office in DEA, or the secondment of a Biodiversity Advisor to TLB – actions that have wide impact but are difficult to aggregate across projects in the GEF/UNDP programmes.

Despite these short-comings, the Tracking Tool is a useful vehicle for stimulating debate within the project team, which should be encouraged to regularly review the indicators being used to measure mainstreaming impact.

7. Findings: Relevance, effectiveness and sustainability

7.1 Relevance of the project results to the needs of the Okavango Delta

"Relevance" is defined by UNDP[5] "*The extent to which the activity is suited to local and national development priorities and organizational policies, including changes over time*". For GEF projects[6], the scope of Relevance must also extend to "*environmental priorities and policies and to global environmental benefits to which the GEF is dedicated*".

In other words, does the project design address the identified threats and their root causes in a way that is consistent with national and international priorities on environmental conservation? And, did project implementation stay true to the project design?

The threats to the Okavango Delta and their root causes were identified in the Project Document and the project was designed to address them. Section 2.1 above found that both threats and root causes have indeed been addressed in the project design, in a thorough manner. Furthermore, Section 6 above found that, the Outcomes and Objectives were all attained satisfactorily.

The results are very relevant to the needs of the Okavango in particular and to Botswana in general, and Relevance is considered **Highly Satisfactory**.

7.2 Effectiveness of project execution

The UNDP sees Effectiveness as a measure of the extent to which the project's intended results (outputs or outcomes) have been achieved or are likely to be achieved.

Section 6 above records the comprehensive achievement of targeted Outputs and Outcomes as well as the Objective, with results often exceeding the original targets.

The overall rating for project Effectiveness is considered **Satisfactory**.

7.3 Sustainability

7.3.1 Institutional sustainability

Capacity, awareness, enabling conditions (policy/ legislation/ regulations/ guidelines) have been built in key sectors of national and local government. The presence of committed staff currently in place in, for example, DEA's Maun office and in the North West District Administration's Development Office, is every encouraging.

There remains, however, weakness in some key sectors, particularly in wildlife/ fisheries and local government (where appointments of senior staff are made at Headquarters level), in the commitment and deployment of human resources and funding. Trained personnel are lacking at key posts, such as the DWNP office in Shakawe, and the promised Biodiversity Coordinator post in the Tawana Land Board. In other cases, competent staff, or those trained during the BioKavango project, have been transferred to other locations in the country. These shortcomings threaten the continuation of project benefits for stakeholders. On the positive side, the Department of Water Affairs has recruited and trained a competent Biologist and established a water quality lab in Maun, with a commitment to carry on the monitoring of water quality that was initiated during the project.

[5] UNDP Evaluation Guidance for GEF-Financed Projects (2011)
[6] The GEF Monitoring and Evaluation Policy 2010

Strong capacity in several sectoral areas, including water quality monitoring, environmental monitoring, the herbarium collection and knowledge management systems (both library and GIS systems), has been built at UB-ORI. The University of Botswana receives strong support from central government, and it is in a very good position to consolidate and maintain many of the key functions developed under BioKavango. However, if there is the intention for UB to continue playing a significant role in social development and sustainable natural resource utilization, there remains a need to improve and support the study of rural development processes, and of policy development. A useful model might be the Centre for Applied Social Sciences (CASS) at the University of Zimbabwe.

Support for biodiversity mainstreaming has been built among private sector tourism partners; with BTO's eco-tourism certification system now in place, there is considerable incentive for others to join. The organization nominally tasked with representing the interests of tourism operators, the Hospitality & Tourism Association of Botswana (HATAB), is not considered particularly effective by at least some of the stakeholders contacted during the TE. There has been discussion around suggestions to merge HATAB with the Botswana Guides Association (BOGA), to provide a more inclusive, and hopefully more effective, body for operators in the tourism industry. Until such a body develops, the involvement of tourism in biodiversity conservation is likely to proceed on a more individualistic basis.

Capacity has improved in a number of CBOs, including the Okavango Fishers Association and Okavango Fisheries Management Committee, Tubu Joint Management Committee, Shorobe Multipurpose Basketry Co-operative Society and Itekeng Community Trust, but none of these groups is sufficiently strong (or confident of their strength) to continue independently. Fortunately there are a few projects, such as SAREP and DARMA (mentioned in Section 4.5 on linkages) which are planning to take up support for assisting these organizations to improve their institutional strength. TOCaDI, a community development organization originally aimed at primary support for marginalized groups but with a broader mandate more recently, has been supporting the Xechuraa Fishing Syndicate at Mohembo through the Teemashane Trust. Its role could be expanded, but would need funding and greater stability of its own staff.

Institutional sustainability is rated, for Outcomes 1 – 4, as 1: Likely, 2: Likely, 3: Moderately Likely, and 4: Moderately Unlikely, for an overall rating of **Moderately Likely**.

7.3.2 Financial sustainability

The financial commitment by central government to some sectors, such as water quality monitoring and invasive plant control, has been strong and looks likely to continue. In other sectors, such as fisheries management specifically and the implementation of the ODMP more generally, it has not been strong, and was possibly postponed by the global recent economic recession. It is not clear when, or indeed whether, the commitment will pick up again when economic conditions improve.

Private sector tourism partners have continued to provide strong, and in some cases growing, support for their contributions to project Outcome 3. The project "champions" in the tourism component of BioKavango were chosen for the interest they had already in biodiversity conservation, and it is not clear to what extent there is scope for expansion of interest beyond this initial core group. It should be noted, on the positive side, that one project partner, Okavango Wilderness Safaris, accounts for some 60% of the camps currently operating in the Delta.

Pilot projects in local communities, such as the fishing syndicates/ trusts at Samochima and Mohembo, and the Multipurpose Basketry Co-operative Society at Shorobe show some potential for financial sustainability, but will continue to need external support in the short

to medium term in order for them to develop the business and decision-making skills to develop their own funding streams for sustainability.

It is considered good, if not "best", practice for project interventions in the biodiversity conservation sector to include a component that would investigate the prospects for sustainable financing of outcomes. Apparently, there was consideration of an "Okavango Trust Fund" in early project formulation stages, but it was abandoned when the prospect of a national Environmental Fund and the Okavango basin-wide fund under OKACOM became likely. However, both of these funds will have considerable demand from a wide range of sources, and a fund dedicated to the Delta in Botswana would be worth re-visiting. A separate activity to develop a sustainability plan for the project outcomes was similarly considered during the formulation phase, but it was (similarly) discontinued. This activity would have been helpful in identifying challenges in maintaining momentum on the pilot projects, in terms of financial and other sustainability aspects.

Financial sustainability is rated, for Outcomes 1 – 4, as 1: Moderately Likely, 2: Moderately Likely, 3: Moderately Likely, and 4: Moderately Unlikely, for an overall rating of **Moderately Likely**.

7.3.3 Social sustainability

The BioKavango project has clearly raised awareness of biodiversity issues in a wide range of key stakeholder groups. The strongest aspect of this awareness-raising was in the Systemic component The sustainability of this awareness, and the long term effect of such awareness on land use decisions affecting biodiversity, is a more open question. Social sustainability is most likely to occur when genuine improvement in livelihood is achieved. Since the

The conflict resolution frameworks developed in both Tubu/ NG25 and the Upper Panhandle areas were innovative and welcomed by a wide range of the stakeholders involved. The mechanisms, based on Codes of Conduct are likely to be long-lasting, since the contesting sides have mutual interests in maintaining the improved relations and reduced hostility. There is still some scope for erosion of the existing agreements, and some stakeholders consider that there may still be need of continued support from government and NGO partners to maintain the social dialogue.

Social sustainability is rated, for Outcomes 1 – 4, as 1: Likely, 2: Moderately Likely, 3: Moderately Likely, and 4: Moderately Likely, for an overall rating of **Moderately Likely**.

7.3.4 Environmental sustainability

Current threats from within Botswana to the ecological integrity of the Okavango Delta are minimal, with consumptive forms of land use and even an expansion of tourism facilities prevented. The greater threats posed are those related to water extraction, pollution or contamination with exotic species from upstream areas in Namibia and Angola. However, the currently effective efforts at international coordination, through OKACOM and supported by a number of regional initiatives, provide the opportunity for reconciliation of potential conflicts of interest between the three countries and reduction of downstream impacts.

Advances made by the project in raising awareness of environmental/ biodiversity concerns at local, regional and international levels have improved the prospects for perpetuating the pristine nature of the Delta.

Environmental sustainability is rated, for Outcomes 1 – 4, as 1: Moderately Likely, 2: Likely, 3: Likely, and 4: Moderately Likely, for an overall rating of **Likely**.

7.3.5 Summary of sustainability ratings

Sustainability of Outcomes	Rating				
	Institutional	Financial	Social	Environmental	Overall
Outcome 1 - Systemic	L	ML	L	ML	**L**
Outcome 2 - Water	L	ML	ML	L	**L**
Outcome 3 - Tourism	ML	ML	ML	L	**ML**
Outcome 4 - Fisheries	MU	MU	ML	ML	**ML**
Overall	**ML**	**ML**	**ML**	**L**	

8. Conclusions, lessons learned and recommendations

8.1 Conclusions

8.1.1 Assessment and summary of ratings

Criterion	Summary comments	Rating
Project formulation		
Concept and design	An innovative approach to biodiversity conservation, attempting transformation of key production sectors in a globally important wetland. The ecosystem approach was particularly appropriate in the dynamic context of a pulse-flow watershed, where stakeholders already had a level of awareness of their dependence on natural processes of change. The choice of an academic institution as Executing Agency could have been risky, but proved effective as a neutral intermediary between the range of contesting interests. The linkages between the project and existing/ planned initiatives in Botswana (ODMP, etc) and the region (EPSMO, etc) gave it added value.	S
Stakeholder participation in project formulation	Extensive consultation and workshops with stakeholders at all levels, in tandem with and building on ODMP preparation processes.	HS
Project implementation		
Project governance	The location of the Executing Agency in a research institute within UB brought a strong reputation for sound financial management, but its centralised accounting and approval system for procurement and staff recruitment resulted in delays in the first year of the project. Fortunately, this was recognised and rectified during the second year, with more responsibility and accountability devolved to ORI and the National Project Coordinator. Component managers were granted responsibility for delivery and reporting through regular meetings with the NPC.	S
Project coordination	The project team worked well together with each other and the PMU, and with its project champions and other stakeholders. The UNDP CO played a positive supporting and oversight role, although their capacity for timely financial payments and responsiveness to technical issues was occasionally stretched. The PSC was active in advising the PMU on implementation, but could have been stronger in ensuring action from their respective Government departments.	MS
Implementation approach		
The LogFrame and adaptive management	The Logframe was developed through stakeholder consultation and is comprehensive and thorough. The Indicators at Goal level are only moderately SMART -- while somewhat Specific, they are not very Measurable, However, the Indicators at lower levels are more suitable. Regular project meetings, with reporting by component leaders, were based around the Logframe, and it appears to have been used effectively as the key monitoring tool for measuring progress. Reflection on progress allowed changes of direction in activities, modification of approaches and correction of mistakes.	S
Stakeholder participation in implementation	Stakeholders at all levels were involved in implementation -- indeed many of the activities involved mobilisation and empowerment of stakeholders in conflict resolution mechanisms, joint management committees and strong participation in activities.	S

Criterion	Summary comments	Rating
Information management	Knowledge management played a major role in project Outcomes, with strengthening of the role of the ORI library in archival work and outreach, development of ODIS as an online source for geographic and textual information, maintenance of the project website as a resource for accessing project reports. There was a weakness in the management and storage of project documentary material, however, and only a very late recognition of the need for a dedicated BioKavango Collection in the ORI library.	S
Risk management	Risk identification played a key role in project monitoring. Risks were addressed and approaches to mitigation were proposed.	S
Project finances		
Financial planning and management	Financial management was sound, and all audits were positive.	HS
Co-financing	Co-financing commitments, from government departments and the private sector in particular, were strong and ultimately the amounts contributed exceeded commitments.	HS
Monitoring and evaluation		
M&E plan, design and budget	The M&E system, based on regular use of the Logframe as a management tool, was good in design and implementation. Reporting to UNDP/GEF via the PIR process was comprehensive and responsive. There does not appear to be a specific budget allocated to M&E within the project itself. The PC was responsible for managing all M&E and a future design could assign this role to a specific project staff member.	S
Project results - Achievements of Objectives and attainment of Outcomes/ Outputs, with reference to the Indicators		
Project Objective	As noted, the indicators for this Objective were not particularly SMART. Some achievement of these targets could be attributed to increased water flow in the Delta, rather than effective implementation. However, it does appear that Outcomes contributed to a successful overall implementation.	S
Outcome 1	Significant progress was made in this Outcome area, with legislation, regulations and guidelines produced that will have long-lasting impact. Take-up of responsibility and staff stability in national and local government has not been comprehensive enough.	S
Outcome 2	The water sector, both in international and national terms, has been effectively involved in biodiversity-conserving awareness and actions.	S
Outcome 3	The tourism sector is well-engaged in biodiversity maintenance and BTO certification looks to provide a self-sustaining incentive. Conflict reduction between private sector and community groups has been very successful and will contribute to better management of natural resources. Empowerment of community groups in tourism activities has had uneven success.	S
Outcome 4	Improvement of livelihoods for fishing communities has occurred but is not yet consolidated. Relationships between users of fisheries resources has improved substantially, with regulations in place and monitoring occurring. The key support of government in the fisheries sector is a potential weakness and needs emphasis.	S
Relevance, Effectiveness and Sustainability		
Relevance	Highly relevant, in line with government policy on environment, biodiversity and wetland management.	HS
Effectiveness	Very effective in some result areas, less so in others.	S

Criterion	Summary comments	Rating
Institutional sustainability	Capacity, awareness and enabling policy/ legislation/ regulations/ guidelines built in some key sectors of national and local government; weakness in some key sectors, particularly in wildlife and fisheries, in commitment and deployment of human and financial resources. Strong capacity built at UB-ORI; some room for improvement in capacity to support and study rural development processes. Support built among some private sector partners; incentives in place for others to join. Capacity improved in CBOs, but sustainability still requires support.	ML
Financial sustainability	Financial commitment by central government to key sectors such as fisheries management has not been strong -- and was possibly postponed by economic recession. Private sector partners have continued to provide strong support for their respective contributions. Pilot projects in local communities show some potential for financial sustainability, but will need some external support in the short to medium term.	ML
Social sustainability	Awareness raised in key stakeholder groups. Conflict resolution mechanisms are likely to be long-lasting, with possible need of continued support from government and NGO partners.	ML
Environmental sustainability	The current threats to the ecological integrity of the Okavango Delta are minimal, and the advances made by the project in raising awareness of environmental/ biodiversity concerns at local, regional and international levels has improved the prospects for perpetuating the pristine nature of the Delta.	L
Overall project rating	This has been an experimental project with development of policies, legislation and regulations, joint management committees, methodologies, and pilots. Its results are mainly intermediate at this stage and its impacts will accrue through the application of its processes by the responsible institutions. It has made good progress towards its Objective and is expected to lead to impacts, in time.	**S**

8.1.2 Project formulation

The project concept was sound with a reasonable timescale and an adequate budget. The project design was complex, the Objective Indicators were not particularly specific or measurable and there was a gap in the identification of livelihood indicators at the Outcome level. But the mainstreaming concept was innovative, the ecosystem approach was appropriate in the context of a variable wetland, the choice of an academic institution as Executing Agency proved effective, and the linkages between the project and existing/ planned initiatives in Botswana added value.

Project preparation was undertaken in a highly participatory manner, involving a broad range of stakeholder groups using a number of different information gathering methods.

8.1.3 Project governance, coordination and partnerships

Governance of the project was complex and multi-layered, but it worked satisfactorily. The fact that the project was embedded in the wider ODMP process worked in its favour and ensured a high level of involvement by many stakeholders at national, District and local levels. There was fairly good collaboration between Government departments and between Government and non-Government partners.

Partnerships and collaboration were a feature of the project – between the UNDP CO and UB -ORI as Executing Agency, between the PMU, PSC and various partner organizations, between central and local Government, and between the many stakeholders involved, especially at local level. There was some evidence of a capacity gap in the UNDP CO, in its ability to respond quickly to the financial and technical needs of the project; this gap should be addressed in future. PSC members could have done more to advance the mainstreaming concept within their respective government departments.

The PMU located in UB-ORI played a crucial role in the coordination of the project which was carried out effectively and efficiently; the inertia experienced in the first 18 months of the project was remedied by the appointment of an ORI-based BPMC. The small team worked well together, cohesively, with good leadership and excellent team spirit. It is held in high regard by all those consulted.

8.1.4 Implementation approach and institutional arrangements

Setting the BioKavango project within the wider ODMP context, which was being implemented by an existing organization (DEA), was an important factor in its success. The partnerships which had already been forged, the consultative and governance processes which were already in place, the technical support which was available, all stood the project in good stead and allowed it to benefit from on-going complementary initiatives. This approach was efficient and cost-effective.

As evidenced by the regular reports from the project and from the supervision missions by the Implementing Agencies, project implementation proceeded comparatively smoothly – after an initial slow start – especially for a complex, multi-faceted project such as this one.

Stakeholders were meaningfully involved in project implementation; many have benefited from capacity building exercises while others participated in various governance groups such as steering committees, forums, etc. Information has been reasonably well-managed. It has been shared with partners and beyond and it has served as a key mechanism holding the partnership together. Information was the basis for the project's outreach to the wider Okavango Delta region and beyond.

8.1.5 Project financial management

Financial planning, management and reporting as a means of accountability has been as complex as other aspects of the project. However, they have been carried out diligently and effectively. All audits of the project's performance have been positive, with no significant problems identified.

The amount of co-funding pledged during project formulation greatly exceeded the 1:1 GEF requirement and the amount committed during the project indicated additional commitment, particularly by private sector partners.

8.1.6 Risk management

A number of problems and constraints which could impact on the successful delivery of the project were identified at the project design stage. Others were raised as part of the Mid-Term Evaluation.

In the event, most of the risks identified either did not eventuate or they were mitigated successfully and no new risks emerged during project implementation. The PMU and UNDP CO showed good attention to risk identification and mitigation.

8.1.7 Monitoring and Adaptive Management

The project M&E Plan comprised an impressive, comprehensive logical framework which more than satisfied GEF requirements. The Logframe served as an effective basis for monitoring performance, reporting progress and informing management to take any necessary corrective action.

The only weakness of this approach was that the Indicators at Objective level were not particularly helpful as measures of success at biodiversity mainstreaming. Indicators are the Outcomes level were more SMART and worked effectively towards the Outcome, in spite of its Indicators.

The emphasis of some Indicators was changed in the direction of livelihoods during the course of the project and this could be claimed to be a sign of adaptive management. With a stronger set of Indicators at the Objective level, which satisfy the SMART criteria, this approach to monitoring and adaptive management could be considered best practice.

8.1.8 Results and Impacts

In spite of the fact that the Objective Indicators in the LogFrame were not completely specific or measurable, indications are that the Objective has largely been achieved. This conclusion is supported by the progress reports, PIRs, Mid-Term Evaluation, consultations and field visits.

It is very likely that the results achieved under Outcome 1 will make a significant contribution to a foundation for mainstreaming biodiversity in the Okavango Delta into economic activities. A number of piloting initiatives were carried out successfully under Outcomes 2, 3 and 4 but several will need additional support to achieve their full impact. However, the models are sound and if they are sustained, can be expected to lead to the hoped-for results.

Under each of the Outcomes, the project delivered a range of products and services. Often, the component focused strongly on particular aspects of the Outcome/Output.

The project targeted many foundational and intermediate products and it achieved most of these successfully. Some progress has also been made towards true results and impacts but the full impact of the project will only accrue in time, and in conjunction with other initiatives.

8.1.9 Relevance, effectiveness and sustainability

The Okavango Delta ecosystem is still considered almost “pristine”. Project activities have been very relevant to the needs of the Okavango Delta, and to Botswana more generally, and they were carried out effectively in general. Many products have been internalized, institutionalized and mainstreamed as core activities of key agencies at both national and District levels. However, some institutionalization is dependent on staffing levels being augmented and sustained, and on funds becoming available since financial sustainability is not yet secure for some activities. On the other hand, there are good prospects for environmental sustainability within Botswana and internationally with support for OKACOM.

In extending the implementation of the ODMP, consideration should be given to broadening the active stakeholders to include others whose action/ inaction has a bearing on biodiversity conservation, such as agriculture and livestock husbandry.

8.2 Lessons learned

1. Mainstreaming is not a simple activity. The concept is novel, somewhat difficult to explain and communicate, and can be an obstacle rather than an answer. But the concept is fundamental to achieving biodiversity conservation success beyond the boundaries of formal protected areas.

2. Mainstreaming is a process, not a product and it is not realistic to expect an "end-point", with full success achieved within a specified, fairly short time frame.

3. Mainstreaming takes time to implement, and needs the physical presence of its proponents in the field, training and mentoring the target stakeholders directly – not through one-off courses and user manuals. It is not a technology, it is a philosophy and a behavioural process.

4. Pilot projects, especially in sustainable use of natural resources, may need greater time to achieve sustainability than the length of a standard project period. Pilot projects may or may not be suitable for "scaling-up"; they should be viewed as experiments and it should be possible to abandon unsuccessful experiments, while pursuing those with greater promise, under the principle of "learning while doing". Expectations of local communities must be managed, along with the strengthening of capacity and identification of financial sustainability.

5. Mainstreaming is dependent for its success on the existence of prerequisites, stimuli and mechanisms. Botswana is fortunately to have socio-economic, governance and technical capacity environments conducive to successful mainstreaming – but the BioKavango model might not be easily replicated elsewhere in Africa. BioKavango benefitted greatly from the ODMP process that to preceded and overlapped with the project design and implementation phases. This preparatory process is unlikely to be in place for initiatives elsewhere in Botswana and they may therefore require the inclusion of a specific phase to undertake this groundwork.

6. The choice of an academic institution for implementing a biodiversity mainstreaming project was a good one. The University of Botswana is a neutral agent, with sound and transparent administrative and accounting capacity, a strong background in research for understanding ecosystem function, fisheries and social conditions, the capacity for building and maintaining a knowledge base and dissemination centre, and a long term presence and commitment in Botswana and the Okavango region. However, its academic focus would benefit from a broader capability for socio-economics and development (for example, the linkage between the Centre for Applied Social Science and the CAMPFIRE programme in Zimbabwe). Greater flexibility for devolving authority in administration and management, achieved in this project after an initial delay, would help with any future role in development projects.

8.3 Recommendations

Terminal evaluations do not normally make many recommendations, especially for successful projects, such as BioKavango. Recommendations made derive from and focus on sustainability of project benefits and on the lessons learned for future projects of this sort and in the region.

Actions to follow up or reinforce initial benefits from the project should note:

1. It is important to maintain staff in key positions for longer periods and ensure handover of skills and knowledge to successors. This applies to Government departments, such as

DEA, DWA, and Fisheries in DWNP. It also applies to the District Administration and to the Tawana Land Board. Private sector tourism operations experience similar turnover of management and other staff, some of whom have been involved in water quality monitoring, *Salvinia* control and waste management; there should be more commitment to continuity.

2. Government departments at national and local level should provide sufficient resources to stations and offices to sustain outcomes.

Actions for the design, implementation, monitoring and evaluation of future projects should note:

3. Replication prospects need careful thought within Botswana and elsewhere; the BioKavango project had many unique aspects.

4. Any future project of this nature, dealing with a broad range of stakeholders and different forms of land use, will require a preparatory planning phase that is fully participatory. If there is such a process already underway, as in the case of the ODMP, then the formulation activities should dovetail with it; if there is no such process in existence, then there should be an early phase of the project itself, or a preliminary, smaller scale project on its own, that would undertake this essential groundwork, identification and sensitization.

5. In a biodiversity mainstreaming project, dealing with key production sectors, it is essential to emphasize livelihoods targets, as well as those for biodiversity.

6. Since an academic institution proved successful as Executing Agency, such a body should be considered for a similar role in future mainstreaming projects. However, financial and centralized administrative procedures should allow greater flexibility while retaining essential oversight, with provision for a semi-autonomous management committee, to avoid delays in mobilization. Capacity in socio-economic and policy formulation should be present or, if absent, strengthened.

7. Knowledge management should form a key part of operational procedures from the outset, and documentation of all project output should continue as an essential function throughout its work period. Knowledge management procedures should stand alone and retain separate protection and backup for all IT systems.

8. Monitoring and evaluation should be treated as a distinct core function, with a dedicated budget, not just part of the National Project Coordinator's job description.

9. A sustainability plan should be developed as a distinct exercise, implemented in time for recommendations to take effect before the end of the project. This plan would look at both financial sustainability (mechanisms, leveraging opportunities) and outcome sustainability.

10. There is a need to explore and promote, if not ensure, the prospects for commitment at the project outset by local and national government agencies to sustain financial resource and human resources beyond the end of implementation.

9. Annexes

1. Terms of Reference for the Terminal Evaluation
2. Documents consulted
3. Stakeholders consulted
4. Itinerary of meetings and field visits
5. Guidelines for rating performance of UNDP projects
6. Logical framework at end of project
7. UNDP/GEF Mainstreaming Tracking Tool
8. Co-financing summary by end of project

Annex 1. Terms of Reference for the Terminal Evaluation

Building Local Capacity for Conservation and Sustainable Use of Biodiversity in the Okavango Delta (BioKavango)

[*PIMS 2028, ATLAS 00050134*]

1. Introduction

a) UNDP/GEF Monitoring and Evaluation (M&E) Policy

The Monitoring and Evaluation (M&E) policy at the project level in UNDP/GEF has four objectives: i) to monitor and evaluate results and impacts; ii) to provide a basis for decision making on necessary amendments and improvements; iii) to promote accountability for resource use; and iii) to document, provide feedback on, and disseminate lessons learned. A mix of tools is used to ensure effective project M&E. These might be applied continuously throughout the lifetime of the project – e.g. periodic monitoring of indicators or as specific time-bound exercises such as mid-term reviews, audit reports and final evaluations.

In accordance with UNDP/GEF M&E policies and procedures, all regular and medium-sized projects supported by the GEF should undergo a final evaluation upon completion of implementation. A final evaluation of a GEF-funded project (or previous phase) is required before a concept proposal for additional funding (or subsequent phases of the same project) can be considered for inclusion in a GEF work program. However, a final evaluation is not an appraisal of the follow-up phase.

Final evaluations are intended to assess the relevance, performance and success of the project. It looks at early signs of potential impact and sustainability of results, including the contribution to capacity development and the achievement of global environmental goals. It will also identify and document lessons learned and make recommendations that might improve design and implementation of other UNDP/GEF projects.

b) The Project Objectives and Context within the Country

The Okavango Delta, one of the largest Ramsar Sites in the world, is a globally important wetland ecosystem situated in northern Botswana. While the ecological integrity of this wetland remains largely intact, there are signs that it is being slowly eroded in the face of gradually rising anthropogenic pressures. This places an urgent need across Botswana's wetland environments to balance competing uses of water and other wetland resources by production sectors, while providing for biodiversity conservation objectives. This need has led the Government of Botswana to develop a National Wetlands Policy and Strategy (2001) which is now in the process of being revised, while at site level a Management Plan for the Okavango Delta (ODMP) has been developed and is currently being implemented as a schema for sustainable development in the area. This Plan is the first of a series of Plans that will be written for wetlands.

The GEF-funded project "Building Local Capacity for Conservation and Sustainable Use of Biodiversity in the Okavango Delta" (hereinafter referred to as "BIOKAVANGO") has been designed to support the elaboration and implementation of the ODMP. More in detail, the project aims at lifting barriers to mainstreaming biodiversity conservation objectives into three production sectors: water, tourism and fisheries, all dependent on ecological services

and goods provided by the Okavango River. These barriers include: a systemic and institutional capacity deficit for wetland management, conflicts over access to wetland resources between user groups, weak management of knowledge needed to guide decision making from the local user level to regulatory authorities, and absence of voluntary mechanisms and incentives, to cultivate private industry involvement in conservation. The Project will remove the barriers through a two-tiered set of interventions: i) that build capacity within the regulatory authorities and service providers to assimilate and supply biodiversity management objectives in decision making; and ii) that demonstrate how best to incorporate biodiversity management into day-to-day production practices through pilot projects. A strong emphasis is placed on participation and engagement between the various stakeholders, and building partnerships between government, private sector and rural communities. While focused on the Okavango, it is anticipated that the conservation methods that were piloted would have application in other wetlands within Botswana and the basin at large.

The long-term goal of the BioKavango Project is: "*The natural integrity and ecological services provided by Botswana's wetlands are sustained*". The Project Objective is: "*Biodiversity management objectives are mainstreamed into the main production sectors of the Okavango Delta*". The Okavango Delta provided a testing ground for new conservation approaches. While the ecological landscape of the Okavango Delta is unique, and the Project was designed to address the specific threats facing the area, the planned approaches to integrating conservation objectives into the production sectors are adaptable for replication elsewhere in Botswana and in other wetlands within Southern Africa.

The Project focused on three production sectors that dominate resource uses within the Okavango Delta: water harvesting, tourism and artisanal and recreational fisheries, all potential threats to biodiversity, but which also provided good opportunities for the successful integration of biodiversity objectives within production systems. Project design was founded on the recognition that command-and-control approaches alone would be inadequate to ensure effective and sustainable mainstreaming of biodiversity management objectives in these sectors. A two-pronged strategy to mainstreaming biodiversity in these sectors was adopted, namely: i) transferring certain key responsibilities for biodiversity management to land users ensuring that land use activities are undertaken with due diligence to conservation objectives, and ii) building capacity within the regulatory authorities responsible for resource use allocation and management to assimilate and apply biodiversity management objectives in decision-making. The strategy was achieved by developing and implementing user-friendly conservation management models, centralising and making data accessible for decision making and providing technical assistance to users to understand the data and make informed management decisions.

Activities were implemented by local and national government agencies in partnership with resource users, including communities, fishermen, and the tourism industry:

- *Government level* – with the aim of mainstreaming biodiversity conservation objectives into District land use planning and management decision making systems and accompanying regulations (such as lease holds); ensuring biodiversity is fully addressed within the Okavango Delta Management Plan including water harvesting plans; building the capacity of government agencies, particularly Land Boards, to address biodiversity conservation issues within their activities and to improve management and enforcement as a driver for transforming production practices.

- *Land resource user level* – with the aim of empowering land users in the target sectors to manage resources sustainably, measuring the impacts of their activities on biodiversity and associated ecosystem processes, and introducing new management approaches, that assure the simultaneous attainment of conservation objectives in the regular course of doing business.

Interventions were designed to contribute to four complementary Outcomes, namely:
Outcome 1: Enabling environment strengthened at both systemic and institutional levels.
Outcome 2: Biodiversity management objectives integrated into the water sector.
Outcome 3: The tourism sector is directly contributing to biodiversity conservation objectives in the Okavango Delta.
Outcome 4: Biodiversity friendly management methods are inducted into fisheries production systems

The UNDP/GEF project document was approved in March 2006, and activities started in June 2006 when the first disbursement was made.

A Project Steering Committee (PSC) served as a body for policy recommendations related to enhancement of programme implementation and attainment of objectives. The PSC comprised of members as recommended in the Project Document.

Further details on the partners, resources and geographical context are available in the Project Document..

2. Objectives of the Evaluation

The evaluation of the BioKavango project is commissioned by the Government of Botswana's Ministry of Environment, Wildlife & Tourism, University of Botswana's Okavango Research Institute, UNDP-Botswana and the GEF in accordance with the project's M&E Plan. It is intended to assess the performance of the project against planned results. The results of the evaluation will also inform the partners in the project, on the need for further support in complementary areas to achieve sustainable development.

This evaluation will provide a professional assessment of the project design, scope, status of implementation and capacity to achieve the set objectives. The evaluation will also collate and analyze lessons learned and best practices obtained during the period of implementation of the project for the development and implementation of future environment programmes in Botswana.

3. Products Expected from the Evaluation

The key evaluation products the evaluation team will be accountable for producing are:

Evaluation inception report — An inception report should be prepared by the evaluators before going into the full fledged evaluation exercise. It should detail the evaluators' understanding of what is being evaluated and why, showing how each evaluation question will be answered by way of: proposed methods; proposed sources of data; and data collection procedures. The inception report should include a proposed schedule of tasks, activities and deliverables, designating a team member with the lead responsibility for each task or product. The inception report provides the programme unit and the evaluators with an opportunity to verify that they share the same understanding about the evaluation and clarify

any misunderstanding at the outset. The consultant will prepare a brief inception note within 3 days of commencement of the TE reflecting in it all substantive and logistical issues that would have to be addressed in order to complete the review successfully

Draft evaluation report — The programme unit and key stakeholders in the evaluation should review the draft evaluation report to ensure that the evaluation meets the required quality criteria.

Presentation of the findings to key stakeholders in a joint UNDP/GEF Govt-UB and Steering Committee (Possibly Power point slides) covering key findings of the TE and obtain participatory comments from relevant stakeholders.

Final evaluation report - Stand alone document approximately 45-50 pages that substantiate its recommendations and conclusions. The report shall be structured along the outline indicated in Annex 1, i.e.:

- Include a detailed record of consultations with stakeholders (to be provided as part of the information gathered by the evaluators), as an annex to the main report.
- If there are any significant discrepancies between the impressions and findings of the evaluation team and stakeholders these should be explained in an Annex attached to the final report.
- An updated METT (Monitoring Effectiveness Tracking Tool), with Evaluators comments..

Evaluation brief and other knowledge products or participation in knowledge sharing events, as appropriate.

The following structure is proposed for the Evaluation Report:

1. Executive summary
2. Introduction
3. The project(s) and its development context
4. Findings and Conclusions
   4.1Project formulation
   4.2Implementation
   4.3Results
5. Recommendations
6. Lessons learned
7. Annexes

The evaluation will last for 6 weeks and the final report to be concluded within 1 week of completion of the in-country part of the mission and sent to UNDP-Botswana. As part of the evaluation the consultant is expected to consult with a broad range of stakeholders within government, private sector, civil society organization, media, academia and local communities.

4. Methodology and Evaluation Approach

The evaluation will be conducted in a participatory manner through a combination of processes. The primary purpose of the evaluation is to improve the project; for this to happen all stakeholders must fully understand and identify with the evaluation report, even if they

might disagree with some of the contents. The evaluation will start with a review of the key project documentation including key reports and correspondence. It will include visits to UNDP Country Office, Project Executing Offices of Government as well as selected national partners and stakeholders, including interviews (by phone if necessary) with key individuals both within the project, the government, and independent observers of the project and its activities. Field visits to project sites will be conducted to view activities first hand and to meet with site partners, local leaders, and local government officials. Note: not ALL project sites need be visited. It is suggested that the Evaluation Team discuss the optimum number and duration of site visits with the Project team at the start

A review of partners and appreciation of their linkage and interest in the project and the relevance of the project to their current situation is essential. The evaluation is expected to obtain the views of both the project implementing parties, the project governance structure and the project beneficiaries. The final decisions about the specific design and methods for the evaluation will be concluded at inception.

The evaluation will also reflect on whether and how monitoring and evaluation were considered in the project design and undertaken during implementation. In addition to a descriptive assessment, a rating following the six-point rating scale: Highly Satisfactory (HS), Satisfactory (S), Marginally Satisfactory (MS), Marginally Unsatisfactory (MU), Unsatisfactory (U), or Highly Unsatisfactory (HU) should be applied to the following parts of the evaluation findings:

- Executive Summary: Progress towards project goal and outcome
- Project Implementation
- Results: Attainment of Objectives, and Progress towards Outcomes
- Monitoring & Evaluation System

For each Outcome, sustainability will be assessed using the 4 point-scale of Likely (L): There are no risks affecting this dimension of sustainability; Moderately Likely (ML). There are moderate risks that affect this dimension of sustainability; Moderately Unlikely (MU): There are significant risks that affect this dimension of sustainability, and Unlikely (U): There are severe risks that affect this dimension of sustainability. The following elements of sustainability will be considered:

- Financial resources: Are there any financial risks involved in sustaining the project outcomes? What is the likelihood that financial and economic resources will not be available once the GEF assistance ends (resources can be from multiple sources, such as the public and private sectors, income generating activities, and trends that may indicate that it is likely that in future there will be adequate financial resources for sustaining project's outcomes)?
- Socio-political: Are there any social or political risks that can undermine the longevity of project outcomes? What is the risk that the level of stakeholder ownership will be insufficient to allow for the project outcomes/benefits to be sustained? Do the various key stakeholders see that it is in their interest that the project benefits continue to flow? Is there sufficient public / stakeholder awareness in support of the long term objectives of the project?
- Institutional framework and governance: Do the legal frameworks, policies and governance structures and processes pose any threat to the continuation of project benefits? While assessing on this parameter also consider if the required systems for accountability and transparency, and the required technical know-how is in place.

- Environmental: Are there any environmental risks that can undermine the future flow of project environmental benefits? The TE should assess whether certain activities in the project area will pose a threat to the sustainability of the project outcomes. For example, construction of dam in a protected area could inundate a sizable area and thereby neutralizing the biodiversity related gains made by the project.

The evaluation will cover all project activities from Inception to the time of evaluation; include all private sector, civil society and government entities involved in the project. Although the project had listed individuals as target, due to the duration and scale of the programme, the sampling will need to systematically select those individuals that have interacted most with the project. The BioKavango project was aimed at mainstreaming biodiversity management objectives into the main production sectors.

It is anticipated that the methodology to be used for the TE will include the following:

a) Review of documentation including but not limited to:-
   i) Project Document
   ii) Project implementation reports (APR/PIR's);
   iii) Quarterly progress reports and work plans of the various implementation task teams;
   iv) Audit reports
   v) Mid Term Evaluation report
   vi) M & E Operational Guidelines, all monitoring reports prepared by the project;
   vii) Baselines and other study reports produced during the project implementation
   viii) District Development Plans
   ix) Policies, Legislations and Regulations regarding land and natural resources management
   x) The Okavango Delta Management Plan
   xi) Transboundary Diagnostic Assessment (OKACOM)
   xii) Strategic Action Plan (OKACOM)

b) Review of supplementary documentation as follows (non-exhaustive):
   i) Minutes of the project Steering Committee and Technical Committee meetings;
   ii) MAPs
   iii) MoU between the UNDP and UB on project implementation
   iv) MoU between the Tawana Land Board (TLB) and the University of Botswana on cooperation for biodiversity mainstreaming
   v) The GEF Monitoring and Evaluation Frameworks
   vi) Technical reports and publications
   vii) Documents on project website: www.orc.ub/biokavango

c) Interviews in the field with stakeholders shall include, among others:
   i) Project team, UB and UNDP staff who have project responsibilities;
   ii) Regional and District authorities and technical officers
   iii) The Director of DEA, Chair of the Steering Committee.
   iv) Project stakeholders
   v) Community based organisations

d) Presentation of the findings

The initial conclusions and recommendations will be presented to the Project team, Technical Steering Committee and UNDP/GEF for their comments. Once these are integrated, a final draft will be presented to UNDP for comments by wider group of stakeholders. Written

comments will be submitted to the team leader for finalization of the TE report within a period of two weeks.

5. Implementation Arrangements

The Evaluation is to generate the following information that will give intended users of the evaluation the information they seek in order to make decisions, take action or add to knowledge:

a) Management Arrangements
The role of UNDP-Botswana is to contract the consultant, oversee the implementation of the agreed schedule of consultation activities, wide stakeholder consultation and verification of all facts in the report and oversee the production of the final Report and follow-up actions.

The Country Office is the main operational point for the evaluation. It will be responsible for liaising with the project team to set up the stakeholder interviews, arrange the field visits, co-ordinate with the Government and ensure the timely provision of per diems and travel arrangements within the country for the evaluation team. These Terms of Reference follow the UNDP GEF policies and procedures, and together with the final agenda will be agreed upon by the UNDP/GEF/Regional Coordinating Unit, UNDP Country Office and the Government. These three parties will receive a draft of the final evaluation report and provide comments on it prior to its completion.

b) Time Frame
The evaluation will be undertaken in 20 working days. The following table depicts tasks, timelines and deliverables, for which the consultant will be responsible and accountable, as well as those involving the commissioning office (UNDP-Botswana), indicating for each, who is responsible for its completion.

In addition, the evaluators are expected to support UNDP efforts in knowledge sharing and dissemination. Required formats for the inception reports, evaluation reports and other deliverables are included in the annexes of the ToR for the evaluation being commissioned. The consultant shall allocated 20 working days over a 30-day during which s/he will be engaged in the evaluation.

Table 1: Indicative Evaluation Work plan.

Task	Time Frame (weeks)				Responsible Entity
	1	2	3	4	
Desk review					Evaluation Team
Briefings of evaluators					UNDP Mgnt
Finalizing evaluation design & methods, and preparing detailed inception report					Evaluation Team
Reference Group Meets to Review Inception Report					UNDP PM
Field Visits & Interviews					UNDP PM
Analysis					Evaluation Team
Preparing the draft report					Evaluation Team
Stakeholder meeting and review of the draft report (for quality assurance)					UNDP PM
Incorporating comments and finalizing the evaluation report					Evaluation Team
Debriefing Session					Evaluation Team

6. Consultant Competencies & Selection Procedures

The TE will be conducted by an independent International Consultant. The BIOKAVANGO project management (Manager) will provide support in the field as may be required including making appointments with regional, district and village stakeholders. The International consultant will be responsible for the delivery, content, technical quality and accuracy of the evaluation, as well as the recommendations. He/She will have a wide range of skills, as follows:

- Evaluation specialist with at least a Master's degree in Biodiversity Conservation, Natural Resources Management, Development Studies, Sustainable Development or other relevant field;
- A minimum of ten (10) years of relevant work experience in the field of biodiversity conservation and related activities. Relevant experience in Southern Africa will be added advantage;
- Proven expertise in evaluating multifaceted programmes/projects and results-oriented monitoring and evaluation;
- Previous experience in evaluating programmes/project for UNDP or other UN/multilateral agencies is essential; previous experience evaluating GEF projects will be a distinctive advantage;
- Excellent analytical and reporting skills and fluency in written and spoken English are essential;
- Demonstrated ability to assess complex situations in order to succinctly and clearly distil critical issues and draw forward looking conclusions.
- Knowledge of international comparative policy, legislation and their application to deliver conservation of biodiversity will be a requirement distinctive advantage.
- Knowledge of the national policy and legislation in the field of biodiversity will be a distinctive advantage.

Some prior knowledge of the following would be ideal:

- GEF, UNDP reporting frameworks
- National Biodiversity Strategy and Action Plan
- Okavango Delta Management Plan
- Knowledge to assess fit with CBD work programs and post 2010 targets
- Millennium Development Goals

Evidence of previous relevant work will also be required in the form of resumes, work samples, references, etc. to support claims of knowledge, skills and experience. These ToRs demand that the evaluator be independent from any organizations that have been involved in designing, executing or advising any aspect of the intervention that is the subject of the evaluation.

The consultants are invited to submit CVs and a Price Schedule which will be evaluated according to the Criteria below,

Stage 1: Technical Capability of the Consultant to deliver the required consultancy outputs evaluated on a scale of 0-50 points wherein the qualifying mark is 70%. The criteria to be used are shown below:

Name of Consultant	Education Master or Equivalent (Yes/No)	Years of Experience >=10 (Yes/No)	Relevance of Educ. Background (Energy & Environment) [20]	Evaluation Experience [20]	Work Experience in Conservation & Development [10]	English Language (Yes/No)	Total 50	Comments
							0	
							0	
							0	
							0	
							0	

Name, Date and Signature of Evaluator: ...../...../.....

Stage 2: Financial Offer of all submissions meeting the 70% mark are considered based on the Price Structure below and the lowest quote selected.

Name of Consultancy: ……

Price Schedule Breakdown Structure (in US$ or BWP)				
Item	**Unit Cost**	**Description of Unit**	**# of Units**	**Total Cost**
Daily Consulting Fee		day		0
Insurance		unit		0
Risks & Inconvenience		unit		0
Hardship Conditions		unit		0
Accommodation and Meals		unit		0
Transport (including air and local)		unit		0
Communication (tel & internet)		unit		0
Stationery		unit		0
Other Costs (specify)		unit		0
Grand Total				0

Submitted by (Name & Signature): ……

Date:…… ……

7. Scope of the Evaluation

The scope of the evaluation for this project reflects the diverse range of activities as defined in the Log-Frame and Results Matrix. Three main elements to be evaluated are Delivery, Implementation and Finances. Each component will be evaluated using three criteria: effectiveness, efficiency and timeliness. The Annex on the structure of the Evaluation Report outlines the content and depth of the analysis.

a) Outcomes
Assess progress towards attaining the project's environmental objectives and outcomes. This should include the extent to which the project contributed to: (a) an enabling environment strengthened at both systemic and institutional levels; (b) integration of biodiversity management objectives into the water sector; (c) enhancing biodiversity conservation through the tourism sector; and (d) inducting biodiversity-friendly management methods into fisheries production systems.

b) Implementation approach
- Review the clarity of roles and responsibilities of the various individuals, agencies and institutions and the level of coordination between relevant players. Assess the level to which the Logical Framework Approach (LFA) and performance indicators were used as project management tools;
- Evaluate any partnership arrangements established for implementation of the project with relevant stakeholders involved in the countries/region;

- Describe and assess efforts of UNDP in support of the implementing agencies, regional and national institutions;
- Make recommendations as to how to improve future projects' performance in terms of effectiveness and efficiency in achieving impact on institutional and capacity development and the targeted environmental concerns.

c) Country ownership/drivenness
Assess the extent to which the representatives of the participating countries (including governmental officials, civil society, etc.) were actively involved in project implementation.

d) Co-financing
Assess whether the governments and other partners have maintained financial commitments to the project and undertake a reconciliation of the co-financing pledged and realised.

e) Stakeholder Participation and benefits accrued
Assess the level of public involvement in the project and comment as to whether the scope of public involvement has been appropriate given the broader goals and objectives of the project;
Review and evaluate the extent to which project benefits have reached the intended beneficiaries.

f) Sustainability
Assess the likelihood of continuation of project outcomes/benefits after completion of GEF funding; and describe the key factors that will require attention in order to improve prospects for sustainability of project outcomes. Factors of sustainability that should be considered include; institutional capacity (systems, structures, staff, expertise, etc.) social sustainability, policy and regulatory frameworks that further the project objectives, financial sustainability.

g) Replication Approach
Describe the main lessons that have emerged in terms of: strengthening country ownership/drivenness; strengthening stakeholder participation; institutional structure and capacity building; application of adaptive management strategies; efforts to secure sustainability; knowledge transfer; and the role of M&E in project implementation. In describing all lessons learned, an explicit distinction needs to be made between those lessons applicable only to this project, and lessons that may be of value more broadly.
Make recommendations on how the lessons and experience can be incorporated into the design of similar initiatives in the future.

h) Financial Planning
Assess the financial control systems, including reporting and planning, that allowed the project management to make informed decisions regarding the budget;
Assess the extent to which the flow of funds had been proper and timely both from UNDP and from the project management unit to the field;
Evaluate the extent of due diligence in the management of funds and financial audits.

i) Cost effectiveness
Assess compliance with the incremental cost criteria (GEF funds used to finance a component of the project that would not take place without GEF funding and securing co-funding and associated funding); and

Assess the extent to which the project has completed the planned activities and met or exceeded the expected outcomes according to schedule and as cost effectively as initially planned.

j) Monitoring and Evaluation
Review the project's reporting systems and their efficiency; and the implementation of the project's monitoring and evaluation plans including any adaptation to changing conditions (adaptive management) – and specifically, assess whether the lessons, insights and recommendations of the mid-term evaluation were applied successfully to re-direct the project.

8. Evaluation ethics

The evaluation will be conducted in accordance with the principles outlined in the UNEG 'Ethical Guidelines for Evaluation' document, attached as Annex IV. The document outlines evaluation ethics and procedures to safeguard the rights and confidentiality of information providers. These include measures to ensure compliance with legal codes governing areas such as provisions to collect and report data, particularly interviewing or obtaining information about children and young people; provisions to store and maintain security of collected information; and protocols to ensure anonymity and confidentiality.

9. ToR annexes

I. Norms for Evaluation in the UN System (http://www.unevaluation.org/unegnorms)
II. Standards for Evaluation in the UN System (http://www.unevaluation.org/unegstandards)
III. UNDP Evaluation Policy (http://www.undp.org/eo/documents/Evaluation-Policy.pdf)
IV. UNEG Ethical Guidelines for Evaluation
(http://www.uneval.org/search/index.jsp?q=ethical+guidelines)
V. Code of Conduct for Evaluators in the UN System
(http://www.unevaluation.org/documentdownload?doc_id=100&file_id=547)
VI. Project Document
(http://dl.dropbox.com/u/20548449/BioKavango%20Terminal%20Evaluation/FSP%20Signed%20ProDoc.pdf)
VII. Terminology in GEF Guidelines to Terminal Evaluations
(http://www.undp.org/gef/05/documents/me/GEF_ME_Policies_and_Precedures_06.pdf)
VIII. Terminal Evaluation Report – Sample outline
(http://dl.dropbox.com/u/20548449/BioKavango%20Terminal%20Evaluation/Terminal%20Evaluation%20Report%20-%20Sample%20Outline.pdf)
IX. Explanation on Terminology provided in the GEF Guidelines to Terminal Evaluations
(http://dl.dropbox.com/u/20548449/BioKavango%20Terminal%20Evaluation/Explanation%20on%20Terminology%20-%20GEF%20Evaluations.pdf)
X. Monitoring Effectiveness Tracking Tool
(http://dl.dropbox.com/u/20548449/BioKavango%20Terminal%20Evaluation/Monitoring%20Effectiveness%20Tracking%20Tool%202009%20%28BW%29.pdf)
XI. Co-financing and Leveraged Resources Table
(http://dl.dropbox.com/u/20548449/NMT/Cofinancing%20and%20Leveraged%20Resources%20Table.pdf)

Annex 2. Documents reviewed

Project Document
UNDP 2006. UNDP Project Document. Full Project – Building Local Capacity for Conservation and Sustainable Use of Biodiversity in the Okavango Delta. PIMS 2028.

Project implementation reports
PIR 2006-07
PIR 2008
PIR 2009
PIR 2010-11

Project progress reports
Quarterly reports:
2006: May-June; July-September; October-December (with Annual report 2006)
2007: January-March; April-June; July-September; October-December (+Annual report 2007)
2008: January-March; April-June; July-September; October-December (+Annual report 2008)
2009: January-March; April-June; July-September; October-December (+Annual report 2009)
2010: January-March; April-June; July-September; October-December (+Annual report 2010)

Annual reports:
2006, 2007, 2008, 2009, 2010

BioKavango Project. 2010. *End of Project Report/ Lessons Learnt Report*. Draft Final, 15th July, 2011.

Audit reports:
2006, 2007, 2008, 2009, 2010

Huntley, B. 2009. *Mid Term Evaluation report*.

Minutes of the project Steering Committee and Technical Committee meetings

Development Plans
NWDC District Development Plan 7
National Development Plan 10

DEA. 2008. *The Okavango Delta Management Plan*. Department of Environmental Affairs.

Transboundary Diagnostic Assessment (OKACOM)
Strategic Action Plan (OKACOM)
National Action Plan

Petersen, C. & B. Huntley. 2005. *Mainstreaming Biodiversity in Production Landscapes*. Working Paper 2005, Global Environment Facility.

Project component descriptions on project website: www.orc.ub/biokavango
Baselines and other study reports produced during the project implementation

GEF Evaluation Office. 2010. *The GEF Monitoring and Evaluation Policy 2010*.
UNDP. 2011. *UNDP Evaluation Guidance for GEF-Financed Projects*. Version for external evaluators (Final Draft, March 17th 2011)

Annex 3. Stakeholders consulted

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Timothy Hanks Damion	Xakanaxa Camp, Moremi Safaris	Manager		
Val Brown	Moremi Safaris	Director		
Action K Gabaikanye	Camp Moremi, Desert & Delta Safaris	Manager		
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Ketumetse Twaimango	Okavango Fishery Association	Member		
Kachiru Xoro	Okavango Fishery Association	Member		
Kakuru Disho	Okavango Fishery Association	Member, Executive Committee		
Okae Setswalo	Department of Wildlife and National Parks	Wildlife Warden		
Mogweetse Komoki	Department of Wildlife and National Parks	Head of Station		
Kgamwimba Scotch	//eechoara Fishing Syndicate - Teemashane trust	Chairman		
Dinyando Seya	//eechoara Fishing Syndicate - Teemashane trust	Member		

Name	Institution	Position	Email	Telephone
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Mapane Mutsukwe	//eechoara Fishing Syndicate - Teemashane trust	Secretary		
Nanvura Mutsukwe	//eechoara Fishing Syndicate - Teemashane trust	Acting Treasurer		
Kakuru Disho	Boiteko Fisheries Resources Trust	Chairperson		
Ketumetse Twaimango	Boiteko Fisheries Resources Trust	Secretary		
Saushiko Njwaki	Boiteko Fisheries Resources Trust	Member		
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Charlotte Gobuamang	North West District Administration	Social Worker		
Keitshokele Kamina	Itekeng Trust, Ngarange	Volunteer		
Makena Aaron	Itekeng Trust, Ngarange	Board Member		
George Bahumiseng	Botswana Police, Ngarange	Police Officer		
Eshimbo Shamarambo	Itekeng Trust, Ngarange	Member		
Morotse Shimwe	Itekeng Trust, Ngarange	Observer (Assistant Court Bailiff)		
Kathiye Disho	Itekeng Trust, Ngarange	Member, Basket weaver		

Name	Institution	Position	Email	Telephone
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Arang Joel	Itekeng Trust, Ngarange	Member		
Regina Mokoya	Itekeng Trust, Ngarange	Member		
Maapeo Mosetho	Itekeng Trust, Ngarange	Member		
Mate Samokonda	Itekeng Trust, Ngarange	Member, Basket fisher		
Maenga Moshoti	Itekeng Trust, Ngarange	Member, Basket fisher		
Mopika Sekerete	Itekeng Trust, Ngarange	Member		
Kayana Kamboo	Itekeng Trust, Ngarange	Member		
Gaothuse J Mbambo	Itekeng Trust, Ngarange	Member		
Kemoneetswe Xhiynsa	Okavango Polers Trust, Mbiroba Camp	Secretary		c: +267 7376 9579
Galefele Maokeng	Trust for Okavango Cultural and Development Initiatives (TOCaDI)	Coordinator	galefele@tocadi.info	t: +267 687 5084/ 168 c: +267 7183 3604
Gasalamang Xaa	Tubu Joint Management Committee	Chairperson		
Chabi Moteti	Tubu village	Deputy Chief, Member JMC and Multi-purpose Co-op		
Aaron Seepetswe	Tubu Fishing and Multi-purpose Co-op	Chairperson		
Anna Simonda	DWNP Gumare	Wildlife Scout		
Keaboka Kantini	DWNP Gumare	Senior Wildlife Warden		
Ketlhatlogile Mosepele	Okavango Research Institute, University of Botswana	Research Fellow (Senior Fisheries Biologist)	kmosepele@orc.ub.bw mosepeleK@gmail.com	t: +267 686 1833 c: +267 75054735
Benjamin Thupe	Okavango Research Institute, University of Botswana	Librarian	bthupe@roc.ub.bw	
Frank Youngman	University of Botswana, Gaborone	Deputy Vice Chancellor Academic Affairs	dvcaa@mopipi.ub.bw	t: +267 355 2033

Name	Institution	Position	Email	Telephone
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Nelson Nagafela	Department of Wildlife and National Parks	Deputy Director, Strategy & Research	nnagafela@gov.bw	t: +267 397 3097 c: +267 73257576
Felix Monggae	Kalahari Conservation Society	Chief Executive Officer	felixmonggae@kcs.org.bw	t: +267 397 4557 c: +267 7131 2447
Bakoloki Autlwetse	Kalahari Conservation Society	Deputy Chief Executive Officer	baboloki@kcs.org.bw	t; +267 297 4557 c: +267 7144 3443
Steve Johnson	Southern Africa Regional Environmental Programme - SAREP	Chief of Party	sjohnson@sarep.co.bw	t: 267 393 5100 c: +267 7145 5455
Shaft Nengu	Department of Wildlife and National Parks	Chief Wildlife Officer	snengu@gov.bw	t: +267 319 1047 c: +267 7178 3398
Portia Segomelo	Department of Environmental Affairs, Ministry of Environment, Wildlife & Tourism	Deputy Director	psegomelo@gov.bw	t: +267 390 2050 c: +267 7163 1693
Ingrid M. Otukile	Department of Environmental Affairs, Ministry of Environment, Wildlife & Tourism	Chief Natural Resources Officer/ GEF Operational Focal Point	iotukile@gov.bw	t: +267 390 2050 c: +267 7240 8852
Onkokame Kitso Mokaila	Ministry of Environment, Wildlife & Tourism	Minister	omokaila@gov.bw	t: +267 391 4955 c: +267 7130 0611

Annex 4. Itinerary of meetings and field visits

Date	Time	Activity	Venue
Monday 04.07.11	11:00-12:00	-Meeting with Akiko Yamamoto, Regional Technical Advisor (International Waters), UNDP Regional Office for Eastern & Southern Africa to discuss projects related to BioKavango	UNDP, Pretoria
Tuesday 05.07.11	09:00-10:30	-Meeting with Nik Sekhran, Principal Technical Adviser, Ecosystems and Biodiversity, UNDP, to discuss UNDP/GEF monitoring approach and BioKavango	UNDP, Pretoria
Wednesday 06.07.11	AM/PM	-Meeting with Leonard Dikobe, Programme Specialist (Energy & Environment), UNDP Botswana Country Office; orientation and planning	UNDP, Gaborone
	PM	-Meeting with Lare Sesay, Deputy Resident Representative, Programmes and Operations to discuss UNDP role and operations	UNDP, Gaborone
Thursday 07.07.11	AM	-Inception Meeting for the Terminal Evaluation -PSC Meeting	Maun Lodge
	PM	-Meeting with OKACOM CEO- Discussions about TDAs and E-flows, SAP/NAP	OKACOM office
Friday 08.07.11	AM	-Courtesy call/visit to the ORI Directorate (Acting Director & Deputy Directors)	ORI, Director's Office
	AM	-Meeting with Project Coordinator: Overview of project implementation progress: Achievements, Challenges etc	BioKavango office
	PM	-Meeting with Derrick Flatt: Discussions on co-financing role played by the private sector in the project and participation in project reference groups representing both the private sector and HATAB	DDS Office
	PM	-Meeting with the PSC Chair (DEA Director)	DEA Office
	PM	-Meeting with DEA District Coordinator (Mr. S. Motsumi): BioKavango Project contribution to the implementation of the ODMP	DEA Office
Monday 11.07.11	AM	-Demonstrations and discussions of *Salvinia molesta* control and monitoring (pilot sites: Xakanaxa camp, Moremi Safaris and Camp Moremi) -Meeting with Dr N Kurugundla & JC Buru, Aquatic Vegetation Control Unit, DWA to discuss partnership with the project in *Salvinia* control & monitoring/and capacity building for tour operators	Moremi Game Reserve-Xakanaxa
	PM	-Visit to Thuso Lutheran Rehabilitation Centre (TLRC) – to view an operational constructed wetland polishing system	TLRC
	PM	-Meeting with DoT Regional Tourism Officer (Ms L. Karanja): Discuss Guidelines for Licensing House Boats and Motor Boats	DoT
Tuesday 12.07.11	AM	-Meeting with Tawana Land Board: Role of BIOKAVANGO Project in BD mainstreaming within the TLB-Achievements and challenges	TLB office
	AM	-Demonstrations on Identification of Tourism Related Sites (ITRS) by TLB Land Surveyor -Maps showing zones and tourism sites	TLB Office
	AM	-Meeting with S. Mosojane, former Biodiversity Coordinator (seconded to Tawana Land Board): Discuss biodiversity mainstreaming at the TLB	Maun

Date	Time	Activity	Venue
	PM	-Meeting with Map Ives : Discussions on co-financing role played by the Okavango Wildlife Safaris	OWS Office
	PM	-Meeting with I. Magole, Livelihoods Specialist for SAREP (former Tourism Specialist for BioKavango): Discuss joint management planning at Tubu/JMC -Meeting with Geofrey Khwarae: Communications Specialist for SAREP, (former BioKavango Water Coordinator)	SAREP office
Wednesday 13.07.11	AM	-Meeting with David Kays (Ngamiland Adventure Safaris): View of the private sector on the Tubu/NG25 Joint Management System/Monitoring of indicator species within NG25 and NG26/Liquid waste management in NG25 & NG26 lodges	David Kay's office
	AM	-Visit GIS lab and meet with Prof Vander Post/Mr Dhliwayo – Explanation of ODIS and how it works	ORI GIS Lab
	PM	-Visit to ORI library and meeting with Ms Zanele – Demonstration of the Knowledge Management System	ORI Library
	PM	-Visit to ORI Pete Smith Natural/Herbarium facility and meet with Dr Demel Fanta and Mr Madome– Discussion on its role and how the project supported the facility	ORI Pete Smith Herbarium
	PM	-Visit to Environmental Laboratory and Meeting with Prof Masamba: Explanation/Demonstration of Water Quality Monitoring Program Results	ORI Environmental Laboratory
Thursday 14.07.11	AM	-Meeting with Communication Specialist at OKACOM (Ms Monica Morrison), the former UB-ORI Librarian who worked with the project on setting up knowledge management initiatives at ORI	OKACOM Office
	AM	-Visits to Shorobe Pilot site: JMC focused activities on Shorobe Basketry Multi-Purpose Cooperative Society (Basketry and Agro-forestry)	Shorobe
	PM	-Mike Murray-Hudson (head of Environmental Monitoring: meeting to discuss general project formulation and Environmental Monitoring Unit at ORI	ORI
Friday 15.07.11	AM	-Thabang Dikatholo (DOD-Maun): meeting to discuss District Development Planning processes with regards to ODMP/ BioKavango mainstreaming into DDP7	DA
	AM/PM	-Meeting with BioKavango Project Coordinator to discuss project implementation processes	ORI
	PM	-Meeting with Belda Mosepele, M&U Specialist for SAREP (former BioKavango Fisheries Coordinator)	Maun
Saturday 16.07.11	AM	-Meeting with Pete Hancock, Birdlife Maun -Meeting with Chandida Monyadzwe, Regional Community Programme Manager, SAREP	Maun Lodge
Monday 18.07.11	AM/PM	-Meeting with DWNP (O Setswalo),OFMC and OFA members: Discussions on the following • Fisheries Regulations, • Conflict resolution • Improved Fisheries Management System (OFMC business) • The Code of Conduct for sustainable fishing • Set Asides/fishing free zones	Shakawe

Date	Time	Activity	Venue
		• Visits to set asides and observation of how code of conduct is complied with.	
Tuesday 19.07.11	AM/PM	-Visits to Pilot sites in Shakawe and meet with Boiteko Trust, Teemachane Trusts; discuss about their fishing activities and how they have partnered with the BioKavango/DWNP in improved fisheries management.	Shakawe
	PM	-Meeting with Elaine Pryce (Shakawe Fishing Camp) and with Drotsky, Xaro Lodges: discuss how they have partnered with the BioKavango /DWNP in improved fisheries management.	Shakawe
Wednesday 20.07.11	AM	-Visits to pilot Site in Ngarange to meet with Itekeng Trust: To discuss aspects of their proposed recreational fishing/cultural fishing activities	Ngarange
	PM	-Visit to pilot site in Seronga (Mbiroba Lodge): To see the constructed wetland polishing system, and discuss inundation problems resulting from the high floods of 2009/10/11.	Seronga
Thursday 21.07.11	AM/PM	-Visits to Pilot sites in Tubu/Gumare and meeting with JMC and Tubu headman: Discuss MOMs/Tubu multi-purpose fishing cooperative/management planning etc	Tubu/Gumare
	PM	-Meeting with Sekgowa Motsumi, DEA Maun, to discuss implementation of ODMP	DEA, Maun
Friday 22.07.11	AM/PM	-Meeting with K. Mosepele on fisheries research in Okavango -Meeting with Benjamin Thupe on BioKavango Collection in the ORI library -Meetings with BioKavango Project Coordinator on Mainstreaming Tracking Tool	ORI
Monday 25.07.11	0830-0930	-Meeting/ Courtesy call to the UB Deputy Vice Chancellor, Academic Affairs	UB, Gaborone
	0945-1045	- Meeting with Prof. B.P. Parida, Head of Environmental Science, discuss UB's role in research and development projects	
	12:00-13:00	-Meeting with Leonard Dikobe, planning and logistics	UNDP Gaborone
	14:30-16:00	-Meeting with Botswana Tourism Organization (S. Ramalepa): An overview of BECS formulation and implementation progress	BTO, Gaborone
	17:00-18:00	-Meeting with Nelson Nagafela, Acting Director, Department of Wildlife & National Parks, to discuss the review of the WMA Regulations and WMA Guidelines	DWNP, Gaborone
Tuesday 26.07.11	0830-1030	-Meeting with KCS CEO/IWRM Project Coordinator: Partnerships with the Biokavango in water/biodiversity related initiatives	KCS, Gaborone
	11:45-12:30	-Meeting with Chief of Party for SAREP (Mr. Steve Johnson): Work on Tubu pilot project.	SAREP, Gaborone
	15:00-1630	-Meeting with Leonard Dikobe, to discuss UNDP's role in project management	UNDP, Gaborone
Wednesday 27.07.11	0830-1000	-Meeting with DWNP (Assistant Director Fisheries Shaft Nengu) to discuss fisheries coordination between BioKavango and DWNP	DWNP. Gaborone

Date	Time	Activity	Venue
	1015-1130	-Meeting with Chief of Party for SAREP (Mr. Steve Johnson): How SAREP is upscaling BioKavango pilot projects	SAREP, Gaborone
Thursday 28.07.11	0830-1030	-Meeting with DEA (Deputy-Director Mrs. P. Segomelo and GEF focal point Mrs. I. Otukile)	DEA, Gaborone
Friday 29.07.11	AM	-Presentation of draft report to PSC meeting	Maun

Annex 5. Guidelines for Rating Performance of UNDP Projects[7]

1. Progress toward achieving project objectives

Taking into account the cumulative level of progress compared to the target level across all of the objective indicators, the progress of the project towards meeting its objective, according to the following scale.

Highly Satisfactory (HS)	Project is expected to achieve or exceed all its major global environmental objectives, and yield substantial global environmental benefits, without major shortcomings. The project can be presented as "good practice".
Satisfactory (S)	Project is expected to achieve most of its major global environmental objectives, and yield satisfactory global environmental benefits, with only minor shortcomings.
Marginally Satisfactory (MS)	Project is expected to achieve most of its major relevant objectives but with either significant shortcomings or modest overall relevance. Project is expected not to achieve some of its major global environmental objectives or yield some of the expected global environment benefits.
Marginally Unsatisfactory (MU)	Project is expected to achieve of its major global environmental objectives with major shortcomings or is expected to achieve only some of its major global environmental objectives.
Unsatisfactory (U)	Project is expected not to achieve most of its major global environment objectives or to yield any satisfactory global environmental benefits.
Highly Unsatisfactory (U)	The project has failed to achieve, and is not expected to achieve, any of its major global environment objectives with no worthwhile benefits.

2. Progress in project implementation

Highly Satisfactory (HS)	Implementation of all components is in substantial compliance with the original/formally revised implementation plan for the project. The project can be presented as "good practice".
Satisfactory (S)	Implementation of most components is in substantial compliance with the original/formally revised plan except for only a few that are subject to remedial action.
Marginally Satisfactory (MS)	Implementation of some components is in substantial compliance with the original/formally revised plan with some components requiring remedial action.
Marginally Unsatisfactory (MU)	Implementation of some components is not in substantial compliance with the original/formally revised plan with most components requiring remedial action.
Unsatisfactory (U)	Implementation of most components is not in substantial compliance with the original/formally revised plan.
Highly Unsatisfactory (HU)	Implementation of none of the components is in substantial compliance with the original/formally revised plan.

[7] UNDP Evaluation Guidance for GEF-Financed Projects (2011)

3. Sustainability of objectives and outcomes

Likely (L)	Negligible risks to sustainability, with key outcomes expected to continue into the foreseeable future
Moderately Likely (ML)	Moderate risks, but expectations that at least some outcomes will be sustained.
Moderately Unlikely (MU)	Substantial risk that key outcomes will not carry on after project closure, although some outputs and activities should carry on.
Unlikely (U)	Severe risk that project outcomes as well as key outputs will not be sustained.
Highly Unlikely (HU)	Expectation that few if any outputs or activities will continue after project closure.

Annex 6. Logframe at end of project, as reported by the PMU

Project Objectives & Outcomes	Description	Description of Indicator	Baseline Level	Target Level at end of project	Level at 30 June 2011
Objective	Biodiversity management objectives are mainstreamed into the main production sectors of the Okavango Delta	Populations of wetland indicator species sustained Wattled Crane Slaty Egret Red Lechwe Sitatunga	 1,400[8] 4,000[9] 34,949[10] 249[11]	No more than 20% drop in numbers	Status remains as in June 2010. [2010: Pete Hancock of Birdlife Botswana (personal comm), argued that even though they have not done any census in recent years, sightings of the wattled crane and the slaty egret are very pronounced. The documented populations of these species are reported being on the increase due to the restored habitats by the recent floods (2009-2010). The population of the slaty egret has remained stable and is on the increase. Pete Hancock (pers. comm.) says the slaty egret is widespread throughout the Okavango Delta Ramsar site, including the Linyanti Swamps and Lake Ngami. The BirdLife Botswana study did not determine the population size, so the best estimate of the global population remains at 4,000 individuals (Wetlands International, 2002) 85% of which are found in Botswana. The high floods in 2009 and 2010, have restored the previous known habitats of the Slaty egret. NG 25 a concession within the ODRS started monitoring species diversity in 1999 (Jennifer S. Lalley 1999). Studies overtime showed seasonal variation in the sitatunga population. In years that floods were high there would be higher population estimates (Jennifer S. Lalley 1999). Species such as the red lechwe and the sitatunga which are indicator species in the Okavango Delta have had their populations reduced over the past few decades due to habitat loss, poaching and legal hunting. These species are now showing signs of recovery due to conservation efforts put in place by regulatory institutions and also by the recent flooding regimes of 2009 and 2010 which have extended their habitat to be close to the former.]

[8] Data from Birdlife Botswana surveys done over a period of three years 2001, 2002 and 2003
[9] Data from Birdlife Botswana Aerial Survey from the ODMP study carried in 2005
[10] Data from DWNP Annual Aerial Surveys carried out in 2006
[11] Data from DWNP Annual Population Census carried out in 2005

Project Objectives & Outcomes	Description	Description of Indicator	Baseline Level	Target Level at end of project	Level at 30 June 2011
					The indicator species populations within the ODRS are considered stable and no more than 20% drop registered. However, data from monitoring by some concessions and the Botswana Wildlife Management Association (BWMA) in the Okavango Delta show that species such as the red lechwe and the sitatunga (indicator species) and cryptic species are recovering, contrary to the recent (2011) aerial surveys by Dr Mike Chase, reporting losses of up to 90% for some Delta species. Aerial surveys/censuses have a tendency to underestimate species populations; specifically cryptic and herd species tend to be undercounted. However, in the past few decades species populations were reduced due to habitat loss, poaching and legal hunting. As per the data coming from the ground surveys (some concessions and hunters) species are now showing signs of recovery due to conservation efforts put in place by regulatory institutions and also as a result of extra-ordinary floods experienced in 2009, 2010 and 2011. These floods have tended to extend the otherwise dwindling habitats.
		Total production landscape under improved conservation management (Total target area of wetland: 18,210 sq kms)	Nil	60% of Project Area	About 60 -70% of the project area is covered with biodiversity conservation related interventions that were initiated by the project and its partners. The increase indicated (since 2009) results from increased monitoring activities done by private the sector within their concessions and community based organisations in the project area, and this is co-finance to the project e.g. all environmental management work carried out by Okavango Wilderness Safaris (OWS), DDS (Desert and Delta Safaris), Ngamiland Adventure Safaris lodges and camps across the Delta, Moremi Safaris, Orient Express and others. In summary the project has delivered improved human capacity in biodiversity management through training and mentoring; improved institutional capacity by placing key professionals in decision support positions; improved biodiversity and land-use and natural resource management; strengthened institutions through effective partnerships and networks; heightened awareness of the value of biodiversity to human wellbeing; improved livelihoods

Project Objectives & Outcomes	Description	Description of Indicator	Baseline Level	Target Level at end of project	Level at 30 June 2011
					through better small business activities; incentives to tourism operators through the development of standards and certification. These and many others all combine to contribute to a central focus on improved conservation and sustainable livelihoods. It is however important to note that some of the impacts of the project are beyond the defined project area; these relate to work on the enhancement of enabling environment for biodiversity conservation at national level. Examples include the Botswana Eco-Certification Standards (BECS), Integrated Lease Agreement for Tourism, Wildlife Management Area Regulations.
Outcome 1	Enabling environment strengthened at both systemic and institutional levels	% of BD management actions recommended by OWMC implemented by District regulatory authorities	0	50	Status remains as in June 2010. [2010: About 60% of BD management actions recommended by OWMC are implemented by district regulatory authorities. The OWMC was institutionalized as a permanent sub-committee of the DDC, the highest decision making structure on planning and development at the district level. The OWMC co-delivers its mandate in partnership with DLUPU (District Land Use Planning Unit) through quarterly meetings where planning issues/problems are discussed, and recommendations forwarded to regulatory agencies for implementation through the DDC. Some of the issues/actions recommended to the DDC (and actually discussed and acted upon) include the following: i) the need to declare the ODRS a planning area under the Town and Country Planning Act; ii) the non-recognition of flood recession (Molapo) farming by local authorities in relation to other Government programmes and policies such as ISPAAD; iii) compensation for damaged crops by wildlife in Molapo fields across the ODRS; iv) the demarcation and gazettement of elephant corridors which were identified during the formulation of the ODMP-land allocations to consider discouraging homesteads and agricultural fields in wildlife corridors; v) the mushrooming and gazettement of settlements within the ODRS which do not take into consideration BD management objectives; vi) clarity on free development

Project Objectives & Outcomes	Description	Description of Indicator	Baseline Level	Target Level at end of project	Level at 30 June 2011
					areas along the periphery of the Okavango River that was proposed in the Integrated Land Use Plan of the ODRS formulated during the ODMP; vii) the need to have better storage for handling of waste especially between transfer stations; viii) the need for collaboration between licensing authorities to address key environmental issues in the district; ix) the need to monitor waste along major roads across the ODRS by the NWDC. Currently, the foregoing issues are being addressed by key institutions such as TLB, DEA, NWDC. The OWMC has a diversity of stakeholders: the civil society, NGOs, Community trusts and Government institutions which regularly participate in its quarterly meetings. TLB and DEA form the secretariat of the OWMC and will remain so post the BIOKAVANGO project. Some of the OWMC members are part of the reference group that is finalizing the TDA for the Okavango River basin, signifying that their mandate extends beyond the Delta.]
		EoP Budget allocation made for implementation of ODMP	Nil	Yes (mid-term target)	Status remains the same as for June 2009. [2009: Substantial resources were proposed by sectors for the implementation of the ODMP during the preparation of NDP 10 and DDP 7 (running from 2009-2014), which are the country's development plans at national and district levels, respectively. However, due to the world economic meltdown government has taken a decision to delay the implementation of the NDP10/DDP7 by one year and cut development budget by 7% and recurrent budgets by 5%. The actual resources allocated to the implementation of the ODMP will only be clear once DDP7 and NDP10 planning process is concluded or the revision is made public. However a number of actions outlined under the ODMP are already being implemented and these include: 1. Improved hydrological, water quality and sediment transplant monitoring. Department of Water Affairs (DWA) is already implementing some of the water resources management action plans recommended through the ODMP process. These include the establishment of water quality and sediment transport

Project Objectives & Outcomes	Description	Description of Indicator	Baseline Level	Target Level at end of project	Level at 30 June 2011
					monitoring stations in the Delta. 2. Collaboration with UB in the implementation of the ODMP. Department of Environmental Affairs is responsible for coordinating the implementation of the Okavango Delta Management Plan (ODMP). However the DEA has not enough capacity to perform all these mandates at district level. The presence of HOORC and the expertise at the centre necessitated for the Ministry of Environment, Wildlife and Tourism (MEWT) to initiate a process to collaborate with HOORC to provide technical assistance to DEA and sector institutions responsible for ODMP implementation. This assistance is expected to be formalized through a Memorandum of Understanding (MoU). The provisions of the MoU would require funding through District Development Plan 7 or National Development Plan 10.]
		ODMP approved as the over-arching District planning tool by Parliament	0	ODMP passed in 2007 (mid- term target)	Status remains the same as for 2009 and 2010. The ODMP was approved at district level through appropriate structures, including the North West District Council-(Full Council), Tawana Land Board and District Development Committee and the District Planning Management Committee. At national level the plan has been endorsed by the Ministry of Environment, Wildlife and Tourism (MEWT). However, the ODMP is yet to be approved by Cabinet. The Okavango Wetland Management Committee (OWMC) continues to play an important role in the implementation of the ODMP by hosting integrated planning workshops within the district. The OWMC meets on a quarterly basis, and it has now set up a sub-committee (task force) to work closely with GEF/OKACOM EPSMO project and the BIOKAVANGO Project, in the formulation and implementation of the Transboundary Diagnostic Assessment (TDA) and the Strategic Action Plan (SAP) for the Okavango River Basin. This process has also produced the National Action Plan for the Botswana part of the Basin. Upon its completion in 2008, the Okavango Delta Management Plan (ODMP) advocated for action plans to be developed and assigned to specific sector

Project Objectives & Outcomes	Description	Description of Indicator	Baseline Level	Target Level at end of project	Level at 30 June 2011
					departments for implementation. The sector departments ensured that these action plans were planned for within the boundaries of the District and National Development Plans, and such action plans have proposed budgets in DDP 7 and NDP 10, which were scheduled to be implemented starting in April 2009 for a period of five years. The full implementation of the DDP 7 and NDP 10 has now been delayed by one-two years, as discussed in the paragraph above. However, the ODMP action plan was used as the basis for Botswana's contribution to the EPSMO project mainly for the preparation of the National Action Plan (NAP) and the Basin Strategic Action Programme (SAP). This has provided DEA with an opportunity to escalate some of the issues identified during the ODMP and the BIOKAVANGO to Regional/basin level. The incorporation of components of the ODMP action plan into NAP and the SAP will hopefully provide an opportunity for further leverage for financial resources as a result of the regional dimension.
		Wetland conservation plans and actions are integrated into production sector strategies in the rolling Botswana National Development Plans.	NDP9	NDP10	Status remains the same as in 2010. [2010: Wetland conservation plans and actions emanating from the ODMP have been integrated into District Development Plan 7 (DP7) and National Development Plan 10 (NDP10). The ODMP was used as the basis for the preparation of environmental aspects of the foregoing Plans (specifically the DDP7). However, the implementation phase of the ODMP has been negatively affected by the recent global economic recession. This has resulted in the omission/dropping (from DDP7 and NDP 10) of some activities that are considered necessary in the ODMP action plan. DEA is currently looking for alternative sources of funding from other financing institutions outside Government; these funds will be directed into projects that were supposed to be carried out through NDP 10/DDP 7. The MEA strategy is yet to be approved at the Ministry of Environment, Wildlife and Tourism. The MEA is still being discussed in house and will be taken to the ministry for approval. There are other associated

Project Objectives & Outcomes	Description	Description of Indicator	Baseline Level	Target Level at end of project	Level at 30 June 2011
					implementation programmes of some MEAs, such as UNCCD national action plan, which have been approved and implemented, and persistent organic pollutants (POPs) national implementation plan, which is also awaiting approval. The ODMP action plan was used as the basis for Botswana's contribution to the EPSMO project mainly for the preparation of the National Action Plan and the Basin Strategic Action Programme. This has provided DEA with an opportunity to escalate some of the issues identified during the ODMP and the BIOKAVANGO to Regional/basin level. The incorporation of components of the ODMP action plan into NAP and the SAP will hopefully provide an opportunity for further leverage for financial resources because of the regional dimension.] However, very promising is the fact that the ODMP action plan (and related conservation plans) is being used as the basis for Botswana's contribution to the preparation of the National Action Plan and the Basin Strategic Action Programme. This has provided DEA and the District with an opportunity to escalate some of the issues identified during the ODMP and the BIOKAVANGO to Regional/basin level. The incorporation of components of the ODMP action plan into NAP and the SAP will hopefully provide an opportunity for further leverage for financial resources because of the regional dimension.

Project Objectives & Outcomes	Description	Description of Indicator	Baseline Level	Target Level at end of project	Level at 30 June 2011
Outcome 2	Biodiversity management objectives integrated into the water sector	% Change in crown cover of riverine woodlands responsible for regulation of ground water table (<1% of total vegetation cover; actual figures to be determined in year 1 of project)	Not >20%	Not >20%	No changes to report. Status remains the same as described in 2008. [2008: Discussions with experts (vegetation ecologists) at ORI seem to indicate that (although there is no assessment on vegetation cover dynamics over the entire Delta) there is no extensive change of riverine vegetation cover. Work is ongoing (through ORI researchers and their international research partners) in the Delta to determine vegetation responses to different flooding regimes, elephant damage and anthropogenic activities. However, most of these works are snapshots over portions of the Delta, and therefore would provide limited knowledge at the strategic level. The EPSMO and BIOKAVANGO Projects and HOORC commissioned and completed an assessment of environmental flows (Integrated Flow Management) for the Okavango River, as part of the OKACOM Transboundary Diagnostic Assessment. The work included a component (driven by the Okavango Research Institute-ORI) on mapping the current condition and spatio-temporal response of riverine woodland under various flooding conditions in the Okavango – a change over time analysis, 1956 - 2007. The study provides among others, flooding history patterns, a change over time series for riverine woodland over the past 50 years. The following publications are relevant outputs: i) Wolski P., Savenje H. H. G., Murray-Hudson M., and Gumbricht T., (2006). Modelling of the flooding in the Okavango Delta, Botswana, using a hybrid reservoir GIS Model, Journal of Hydrology 331: 58-72; ii) Murray-Hudson M., Wolski P., and Ringrose S., (2006). Scenarios of the impact of local and upstream changes in climate and water use on hydro-ecology in the Okavango Delta, Botswana, Journal of Hydrology 331: 73-84]
		% Change in relative proportions (1:1.6) of permanent and seasonal flooded areas)	Within 20%	Within 20%	Status remains the same as in 2010. [2010: It is predicted (from the Landsat 5 & 7 imagery and recently assembled hydrological models) that the change in relative proportions of permanent and seasonal flooded areas in the Okavango Delta have remained stable (i.e. within 20%).

Project Objectives & Outcomes	Description	Description of Indicator	Baseline Level	Target Level at end of project	Level at 30 June 2011
					A semi-conceptual model was developed by Wolski et. al at HOORC, and it models inundation frequencies and extents in the Delta. It has four sub-models: i) A reservoir sub-model simulates flow of water through the Delta as flow through an array of nine quasi-non-linear reservoirs. It incorporates a representation of surface water-groundwater interactions, where floodplains and dryland/island groundwater are simulated separately. This operates on monthly time step; ii) A GIS-based model is used to simulate inundation distribution. In this sub-model the lumped inundated area obtained on a monthly basis from hydrological sub-model and distributed according to an analysis of historical inundation obtained from NOAA AVHRR images at a 1km grid resolution; iii) A dynamic ecotope sub-model was developed in order to classify hydrological conditions obtained from the hydrological/GIS models for the Okavango Delta in terms of hydro-ecological functionality.]
		Hydro-ecological scenarios and models in place for assessment of large scale water harvesting (development) proposals in the Okavango River Basin (% of development proposals assessed using Hydro- ecological scenarios)	0	100	Status remains the same as in 2010. [2010: The Environmental Flows Assessment/Integrated Flow Management for the Okavango River Basin was concluded in July 2009, and has been incorporated into the OKACOM Transboundary Diagnostic Assessment (TDA) and together with the TDA, is informing the development of the Strategic Action Program. One key output of the Integrated Flow Assessment was the Decision Support System (DSS) that captures the biophysical (ecological) and socio-economic knowledge and uses the relationships between the indicators and flow to form the knowledge base of the system. Simulated flow regimes for each development scenario for the whole basin were also entered into the DSS, which used this knowledge base to predict the ecological and social outcomes for each scenario. The inputs to the DSS are hydrological data representative of a scenario, summarised as a time series of ecologically-relevant statistics, such as duration of the dry season, minimum dry season discharge and flood season peak

Project Objectives & Outcomes	Description	Description of Indicator	Baseline Level	Target Level at end of project	Level at 30 June 2011
					discharge. The outputs of the DSS are, i) biophysical: time-series of abundance, area or concentration for all indicators; estimated mean percentage changes from present day in the abundance, area or concentration for all indicators; estimated change in discipline-specific integrity, relative to present day; estimated change in overall ecological integrity, relative to present day, and ii) Social: change in household income from agriculture; change in household income from natural resources; change in household income from tourism; change in intangible, direct use and non-use values. The DSS can predict changes that may occur for any scenario of water use in the basin. Different flow regime modifications can be inserted and predictions about hydrology and changes in basin features will form the output.]
Outcome 3	The tourism sector is directly contributing to biodiversity conservation objectives in the Okavango Delta	% of tourist establishments meet minimum BD friendly certification requirements	0	0.5	Status remains the same as in 2010. [2010: Botswana Eco-certification Standards have been successfully prepared for Accommodation facilities and Ecotours, and the System is implemented by Botswana Tourism Organisation (BTO). Three levels have been adopted for use in this System; Green, Green+ and Ecotourism. The first two categories have been included to cater for those establishments that could never attain ecotourism level, but are nonetheless making substantial investment in environmental conservation. In the first round of eco-certification, nationwide (till end of 2009/early 2010), 11 Lodges and Camps completed the self assessment forms and were audited by the Ecotourism Assessors. Out of the 11 lodges and camps that applied for eco-certification, 7 were certified whilst 4 did not qualify for eco-certification. The seven camps certfied at the different levels include i) Ecotourism level: Little Vumbra Camp; Savuti Bush Camp, Zarafa Camp, ii) Green+ level: Jao Camp; Kwetsani Camp, iii) Green level: Nxai Pan Camp; Vumbra Plains Camp. Five (Little Vumbra Camp, Jao Camp, Vumbra Plains Camp, Kwetsanai Camp and Zarafa Camp) out of the seven lodges and camps that were eco-certified are located within the Okavango Delta, and

Project Objectives & Outcomes	Description	Description of Indicator	Baseline Level	Target Level at end of project	Level at 30 June 2011
					constitutes about 10% of all tourism establishments in the Delta proper. The Eco-certification System was bench-marked with the American based Sustainable Tourism Eco-certification Programme (STEP) as well as the Australian Eco Certification Program. Members of the Quality Assurance Committee of BTO were trained to certify tourism establishments through the eco-certification standards. A total of 10 Ecotourism Assessors within BTO were also trained to audit tourism establishments for eco-certification. Self assessment forms for prospective tourism establishments are available on line (http://www.botswanatourism.co.bw, website under reconstruction). In order to publicise the ecotourism standards, 400 hard copies of the ecotourism standards have been printed on recycled paper and distributed throughout the tourism establisments in the country.]
		Increase in total investment by tour operators in wetland management.	US$360,000.00 pa	30% increase	Status remains the same as in 2010. Since 2006, increase in tourism investment by Tour Operators (Champions) in wetland management is registered as US$5,200,700, amounting to a significant increase relative to the baseline figure of US$360,000 per annum. (nearly a 3- fold increase over the baseline).

Project Objectives & Outcomes	Description	Description of Indicator	Baseline Level	Target Level at end of project	Level at 30 June 2011
		Pilot sewage effluent polishing systems in place in tourism establishments	0	4	Status remains the same as in 2010. 3 pilot sewage polishing systems in place: The Government of Botswana (through the ODMP) funded the refurbishment of the constructed wetland liquid waste polishing system at Thuso Lutheran Rehabilitation Centre in Maun.The second constructed wetland sewage polishing system in Ngamiland District has been constructed at Mbiroba camp in Seronga, eastern Panhandle. The Mbiroba camp belongs to Okavango Polers Trust and consists of six chalets (with 24 bed capacity) and a camping ground with a capacity of 50 campers. Previously, the camp utilised a septic tank and soakaway sewage polishing system, which was found not suitable for conditions of the Delta (lack of slope and high water table) and failed to efficiently clean effluent to the required standards (BOBS waste water standards). The third wetland polishing system has been constructed at the Shakawe Botswana Defence Force camp (also located on the river bank), and was funded by Government. The BDF liquid waste polishing system caters for ten residential houses and dometries with a capacity of 100 beds. Monitoring of sewage treatment systems has been ongoing. Samples have been collected from the Thuso Lutheran Rehabilitaion Centre constructed wetland system, Tsodilo Junior secondary School (utilises septic tank and soak away) and from Camp Okuti & Xakanaxa camp which utilises the Activated sludge treatment plants. Of all the three sites, the best results that meet the Botswana Bureau of Standards (BOBS) waste water standards were obtained from Xakanaxa camp. The results from Camp Okuti revealed that the system was mulfunctional as there was no change between the inffluent and the effluent. The anomaly was quickly reported to management and they summoned the company that had installed the system to attend to it. Results from Thuso wetland fluctuated as the pump that pushes the effluent out was reported not to function at times. Results from Tsodilo School were most consistent, though not all parameters met effluent standards.

Project Objectives & Outcomes	Description	Description of Indicator	Baseline Level	Target Level at end of project	Level at 30 June 2011
					A large workshop on Sewage management in the Okavango was co-organised by the Project and Department of Environmental Health of the North West District Council and it attracted many stakeholders in the District. The workshop discussed the need for the formulation of liquid waste guidelines for the Okavango Delta, based on the assessments already carried out by the Biokavango Project. A committee comprising of key stakeholders was elected to proceed with the preparation of the guidelines. The committee (under the facilitation of the project and IWRM) have produced the detailed ToRs for the work and has now engaged a consultant (ECOSURV Botswana) to facilitate the development of the liquid waste management guidelines for the Okavango Delta Ramsor Site. IWRM is co-funding the process and would provide technical support even beyond the closure of the BIOKAVANGO Project.
Outcome 4	Biodiversity friendly management methods are inducted into fisheries production systems	% Area of fish production wetland under improved fisheries management systems	0	0.2	Fisheries areas under improved management systems have increased from 15% to about 17% in 2011 after the setting aside of the "fishing-free zones" by the Okavango Fisheries Management Committee (OFMC) and its stakeholders. In addition, the launch of the Code of Conduct for responsible fishing in the Upper Panhandle, has enhanced the local participation of the different stakeholders and the different governance structures (e.g. OFMC) in a guided approach on the use and access of fish resources, and conflict resolution. The code of conduct and the fishing-free zones aim to improve fisheries management in the Okavango Delta. The 17% area increase under improved management is also reflected by the replication of fisheries interventions (that were initiated in the Upper Panhandle) in the Tubu community (Tubu Fishing Cooperative), downstream, and in Ngarange (Itekeng Trust). The fishers from Tubu have now registered a fisheries cooperative-the Tubu Fishers Cooperative. This enterprise in collaboration with the Department of Wildlife and National Parks (DWNP) has been empowered to monitor fish catches, generate data for management. In the process, the community will be

Project Objectives & Outcomes	Description	Description of Indicator	Baseline Level	Target Level at end of project	Level at 30 June 2011
					employed in the enterprise, generating income and alleviating poverty, thus addressing global initiatives outlined in the Millenniun Development Goals, particularly goal # 1 - poverty alleviation. The increase to 17% is also a result of the "Itekeng Trust Fishing Model", which is designed to establish a viable recreational fishing enterprise that practices sustainable business in fishing through "catch & release". The Itekeng Community Trust, one of the CBO's project's champions at the pilot site, is based in Ngarange-Mogotlho site on the eastern bank of the Okavango Delta. The CBO has a constitution, 14 committee members elected from seven (7) villages of Mohembo East, Xakao, Kauxwe, Sekondomboro, Tobera, Mogotlho and Ngarange, elected during their Annual General Meeting. The facilitation of the setting up of this Model has so far included capacity building in various aspects of business enterprise, financial management skills, governance and leadership, marketing, recreational fishing (catch & release). Construction of parts of the model at the Trust's sites is ongoing; and recreational fishing facilities (e.g. mekoro, fishing hooks and lines) have been procured, all these being done through the Project. - Reference: Mosepele, K., Mosepele, B., and T. Bokhutlo (2010). Fish Stock Decline in the Okavango. Fact or Fiction? Peolwane, April 2010, pp 20-21.
		% change in catch per unit effort (CPUE)	Mean minimum catch rate of 3kg/set for all species in the Okavango Delta gill-net fishery. Set = standardised fishing time of 12 hours	0.15	CPUE in the gillnet fishery of the Okavango Delta between1996-2002 (Kgathi et al., 2005) indicates a rise from 0.13tons/fisherman/year in 1996/1997 to 0.25tons/fisherman/year, 0.26tons/fisherman/year and 0.25tons/fisherman/year in 1997/1998, 1998/1999 and 2001/2002 respectively. The stability in the CPUE data recorded over the period 1997/1998 and 2001/2002 suggests that there has been no significant change in the fish abundance over time, and that the fish stocks are not being "fished down". Mosepele (In press) further reports that there have been no significant changes in species diversity, the mean length of the key commercial species, or the species composition in the

Project Objectives & Outcomes	Description	Description of Indicator	Baseline Level	Target Level at end of project	Level at 30 June 2011
					fish community of the Delta's Panhandle. It should be noted that while Mosepele's analysis focused on the fish stocks in the Panhandle, catch data pertaining to the fish stocks in the Southern part of the Delta and the recently filled Lake Ngami are either unavailable, or the data has not been assessed. Nevertheless, as there are fewer fishers and fishing pressures are reportedly lower in the southern part of the Delta (Mr Mkile, DWNP, pers. com.), it is reasonable to suggest that the fish stocks in these areas are also likely to be in a good condition. Furthermore, Lake Ngami is a large shallow lake that accommodates much of the overspill from the Delta. As a shallow temporary system, it is likely to be highly productive, and can in all likelihood withstand significant fishing pressure. An assessment of the CPUE (using no. of fish caught per net/set: set = standardized fishing time of 12 hours) trends for the Tilapia fishery for the period 1998 to 2005, shows a mean CPUE of 7 fish/set between 1998 and 2005 with a maximum of 14 fish/set (in 1999) and minimum of 2 fish/set (in 1998). Significant temporal variations of CPUE were observed where the flood regime was found to be the major factor regulating the observed trends/variations. CPUE in the Delta has spatio-temporal variations and depends on the flooded area and the intensity of the flood regime of the previous flooding season. Investment has been made on training and capacity building for the project champions, stakeholders and the regulatory institutions (Fisheries Division) on GIS mapping, creel survey, fish identification (I & II), catch & effort, length frequency data collection; fish biology and fish monitoring. This is a more accurate index for observing trends in fish catch rates over time in the Delta. Necessary instruments and guidelines were put in place for the achievement of the foregoing. i) Reference Work: Ntsima, N., 2008. Using time series data to assess the Tilapia fishery/CPUE of the Okavango Delta, Botswana. HOORC, Maun. ii) Manual for Field Fish Identification with aspects of

Project Objectives & Outcomes	Description	Description of Indicator	Baseline Level	Target Level at end of project	Level at 30 June 2011
					Indigenous Knowledge produced in collaboration with the Fisheries Division. iii) Fish set asides (Fishing-free zones) agreed upon and demarcated to aid the process of setting up an adaptive fish management plan for the Upper pan Handle. iv) Code of Conduct for responsible fishing for the Upper Panhandle has been produced. The code guides the use, access and conflict resolution mechanism. The code also articulates best practices that ultimately guide resource management and conservation. CPUE is a measure of a basket of indicators that include: no of fish/set; Species Diversity & mean length, mean catch rates, etc. Therefore, a continous long term fish monitoring in a multi-species fisheries like the Okavango Delta should be managed using the basket of indicators above described so that the fish stocks are assessd and their status determined accordingly. A recent fish stock assessment (Mosepele & Kolding, 2008) has shown that the Delta's fishery is not over-exploited, and this is explained by the indicators mentioned above. Furthermore, a 10 year long term experimental fishing database and another 14 year database show that the biology of the Delta's fish stocks and the fisher's catches is driven and correlated by the annual/seasonal flood regime and not to fishing effort. Therfore, the changes observed in the fishery are caused by changes in flooding and not by any over-fishing. A reduction in the biomass of trophy sized fish does not suggest over-exploitation; it is just a sign of a fishery under exploitation.
		Aquaculture BD guidelines and regulations produced	0	by 2007 (mid-term target)	Status remains as in 2010. [2010: By mid-term, this indicator had been achieved. The DWNP (fisheries division) endorsed the aquaculture guidelines, and the guidelines were incorporated into the National EIA requirements (regulations). The Guidelines are also applied specifically by DEA (Maun) when assessments of proposals for aquaculture projects are carried out in the Okavango Delta Ramsar Site.]

Annex 7. UNDP/GEF Mainstreaming Tracking Tool

Tracking Tool for Biodiversity Projects in GEF-3, GEF-4, and GEF-5

Objective 2:
Mainstreaming Biodiversity Conservation in Production Landscapes/Seascapes and Sectors

I. General Data

Project Title	Building Local Capacity for Conservation and Sustainable Use of Biodiversity in the Okavango Delta
GEF Project ID	2028
Agency Project ID	00050134/00043119
Implementing Agency	UNDP
Project Type	FSP
Country	Botswana
Region	SAR
Date of submission of the tracking tool	
Name of reviewers completing tracking tool and completion date	Dr N.M. Moleele
Planned project duration	5 years
Actual project duration	5 years
Lead Project Executing Agency (ies):	Department of Environmental Affairs-Ministry of Environment, Wildlife and Tourism
Date of Council/CEO Approval	February 17, 2006
GEF Grant (US$)	4,000,000

Please identify production sectors and/or ecosystem services directly targeted by project:
(1: Primarily and directly targeted by the project; 2: Secondary or incidentally affected by the project)

Agriculture	2
Fisheries	1
Forestry	
Tourism	1
Mining	
Oil	
Transportation	
Other (Water)	1

II. Project Landscape/Seascape Coverage

1. What is the extent (in hectares) of the landscape or seascape where the project will directly or indirectly contribute to biodiversity conservation or sustainable use of its components?

Designations(please choose 1-3)	3	1: Foreseen at project start 2: Foreseen at mid-term 3: Foreseen at project closure
Landscape/seascape[1] area directly[2] covered by the project (ha)	1,300,000	hectares foreseen
Landscape/seascape area indirectly[3] covered by the project (ha)	1,500,000	hectares foreseen
Explanation for indirect coverage numbers:		The conservation methods piloted under the project (fisheries, water and tourism sectors) are expected to have application throughout Botswana's wetland environments, with a total area in excess 2,500,000 hectares.The area indirectly covered by the water component of the project included water quality monitoring activities at Lake Ngami, Toteng, Boro and Maun, which were not necessarily part of the study area (as defined in the PRODOC). The water quality monitoring program for the Okavango Delta established by the Project (at the Okavango Research Institute) and sustained by DWA include strategic monitoring points in the foregoing areas, to give a more complete picture of the water quality dynamics in the Okavango Delta. Lessons learned from ongoing work in the tourism component of the project are quickly spreading to other parts of the Delta and beyond. This work includes adoption of environmentally friendly liquid waste polishing systems, adoption of safe transportation, handling and storage of hazardous substances, participation of tourism accommodation facilities in the eco-certification program. Partner institutions (e.g. tour operator companies) have established systems to monitor the impacts of tourism on biodiversity within their concessions. The focus is on indicator species – For instance the Ngamiland Adventure Safaris operating in concession NG 25 recorded 28 Sitatunga (Tragelaphus spekii ; listed as a globally threatened species) in 1999 and about 56 in 2008. Ngamiland Adventure Safaris also supports Birdlife Botswana in the monitoring of key bird species (e.g. Slaty Egret and Wattled Crane). Other partner companies including Okavango Wilderness Safaris (OWS) are also monitoring key biodiversity in the Delta. The BIOKAVANGO Project has ensured the standardization of different monitoring systems through the review of the Wildlife Management

		Areas (WMA) Regulations and Lease Agreements; thus ensuring that concessionaires operating in the Delta are obliged to monitor impacts of their activities on biodiversity.The review of legal instruments (Tourism Lease Agreements, WMA Regulations) facilitated by the project, to cater for the incorporation of biodiversity conservation objectives into management practices, apply beyond the borders of the project study area. Aquaculture guidelines were developed and have been codified into EIA national regulations, thus covering a larger area than the defined project study area.

2. Are there Protected Areas within the landscape/seascape covered by the project? If so, names these PAs, their IUCN or national PA category, and their extent in hectares.

Name of Protected Areas	IUCN and/or national category of PA	Extent in hectares of PA
1. Moremi Game Reserve	Game Reserve	488,800ha

3. Within the landscape/seascape covered by the project, is the project implementing payment for environmental service schemes? If so, please complete the table below. Example is provided.

e.g. Foreseen at Project Start	*e.g. Water provision*	*Please Indicate Environmental Service*
	e.g. 40,000 hectares	*Extent in hectares*
	e.g. $ 10 per hectare per year	*Payments generated (US$)/ha/yr if known at time of CEO endorsement*
		Please Indicate Environmental Service
		Extent in hectares
		Payments generated (US$)/ha/yr

Part III. Management Practices Applied

4. Within the scope and objectives of the project, please identify in the table below the management practices employed by project beneficiaries that integrate biodiversity considerations and the area of coverage of these management practices. Please also note if a certification system is being applied and identify the certification system being used. Note: this could range from farmers applying organic agricultural practices, forest management agencies managing forests per Forest Stewardship Council (FSC) guidelines or other forest certification schemes, artisanal fisherfolk practicing sustainable fisheries management, or industries satisfying other similar agreed international standards, etc.

e.g. Foreseen at Project Start	*E.g., Sustainable management of pine forests*	*Please indicate specific management practices that integrate BD*
	FSC	*Name of certification system being used (insert NA if no certification system is being applied)*
	120,000 hectares	*Area of coverage foreseen at start of project*

	Okavango Delta Management Plan (ODMP) developed and approved as the over-arching District planning tool	The ODMP, which covers the total Ramsar Site area of 55,000km2 was developed and approved at district level through appropriate structures, including the North West District Council – Full Council, Tawana Land Board and District Development Committee and the District Planning Management Committee. At national level the plan has been endorsed by the Ministry of Environment, Wildlife and Tourism (MEWT), and is yet to be endorsed by Cabinet. The Ministry of Environment, Wildlife and Tourism (MEWT), in January/February 2008, engaged the district through a number of activities to mark the completion of the planning phase and official commencement of the ODMP implementation. Some of the activities were the Dialogue (entitled Whose Delta is it?) and the World Wetland Day celebrations (including An International Symposium on Sharing Lessons on Wetland Management). This process was facilitated by the Okavango Wetland Management Committee (OWMC), put in place to guide the ODMP formulation and now guiding the implementation of the ODMP. The OWMC was formulated under the auspices of the National Wetlands Policy and Strategy (NWPS) which is still in draft form. The OWMC meets on a quarterly basis, and its sub-committee facilitated the GEF/OKACOM development of a transboundary diagnostic assessment and environmental flows for the Okavango River. The sub-committee further ensured that the foregoing assessments informed the development of the Okavango River Basin Strategic Action Program (SAP) and the Botswana National Action Plan. At the Delta level, the BIOKAVANGO Project used the same forum (through the Biodiversity Coordinator at the Tawana Land Board) to push for integration of wetland conservation plans and actions into the district and national development plans, thus ensuring that wetland conservation plans, land use plans and actions are slotted into District Development Plan 7 (DDP 7) and National Development Plan 10 (NDP10). The Okavango Delta Management Plan (ODMP) after its completion, late in 2008, advocated for action plans to be developed and assigned to specific sector departments for implementation. The sector departments have ensured that these action plans are planned for within the boundaries of the District and National Development Plans and have been integrated into proposed budgets for DDP 7 and NDP 10, which were scheduled to be implemented starting in April 2009 for a period of five years. However, the implementation phase of the ODMP has been negatively affected by the recent global economic recession. This has resulted in the omission/dropping (from DDP7 and NDP 10) of some activities that were considered necessary in the ODMP action plan. DEA is currently looking for alternative sources of funding from other financing institutions outside Government; these funds will be directed into projects that were supposed to be carried out through NDP 10/DDP 7. A review of the ODMP implementation is also scheduled to take-off this year, and it is hoped that the implementing bottlenecks/challenges would be identified and workable solutions identified.
	NA	Name of certification system being used (insert NA if no certification system is being applied)
	55,000km2	Area of coverage foreseen at start of project
	EoP Budget allocation made for implementation of ODMP	Substantial resources were proposed under NDP 10 and DDP 7. These resources were however significantly reduced following the world economic meltdown. Nevertheless a few activities continued to be implemented, and these include: 1. Setting-up of the coordination office for ODMP implementation Department of Environmental Affairs (DEA) which is the coordination institution for the implementation of ODMP has established an office within the Okavango Delta Ramsar Site. The office was officially established in November 2006 and its operational budget is provided on an annual basis

		(over P1million), which is a direct contribution to the implementation of the ODMP. The office oversees the implementation of the ODMP, and this also ensures that there is an environmental coordinating agency in the Okavango. 2. Hosting of the International Wetlands Conference Department of Environmental Affairs in collaboration with BIOKVANGO Project and other ODMP partner institutions organized and hosted an international conference on wetlands management (Sharing Lessons on Wetland Management) in January/February 2008. The conference was held at a cost of more than P300, 000. 3. Environment and Development Dialogue An Environment and Development dialogue which is a panel discussion on pertinent environmental issues was held on 31st January 2008 to debate on environmental management of the Okavango delta system. The initiative was a collaborative effort between the Ministry of Environment, Wildlife and Tourism and BIOKAVANGO Project. The objective of the dialogue was to instill a sense of collective ownership which encompasses the rights and responsibilities to manage and sustainably utilize the resources of the Okavango Delta by all stakeholders (from local, regional to international level). The dialogue cost was about P100, 000. A Journal article entitled "The Okavango; Whose Delta is it? By Magole & Magole has been accepted for publication in the Physics and Chemistry of the Earth Journal 4. Improved hydrological, water quality and sediment transplant monitoring Department of Water Affairs (DWA) is already implementing some of the water resources management action plans recommended through the ODMP process. These include the establishment of water quality and sediment transport monitoring stations in the Delta. 5. Collaboration with UB in the implementation of the ODMP Department of Environmental Affairs is responsible for coordinating the implementation of the Okavango Delta Management Plan (ODMP). However the DEA has not enough capacity to perform all these mandates at district level. The presence of Okavango Research Institute(ORI) and the expertise at the Institute necessitated for the Ministry of Environment, Wildlife and Tourism (MEWT) to initiate a process to collaborate with ORI to provide technical assistance to DEA and sector institutions responsible for ODMP implementation. This assistance has been formalized through a Memorandum of Understanding (MoU). The provisions of the MoU would require funding through District Development Plan 7 or National Development Plan 10. Due to the slow implementation process of the ODMP, possible partnerships under this MoU are yet to be fully explored. 6. Harmonization of the Tourism Development Plan and the Integrated Land Use Plan The Integrated Land use Plan (ILUP) and the Tourism Development Plan (TDP) were drawn during the preparation of the Okavango Delta Management Plan. The ILUP was under the auspices of Tawana Land Board with the primary goal of developing an integrated Land Use and Land Management plan for the Okavango Delta Ramsar Site (ODRS), which would ultimately form an integral component of the ODMP. The plan guides land management and divides the Okavango Delta Ramsar Site into distinct land use zones. The plan is supported by a comprehensive database management system which in combination with other elements of the plan will ensure the long-term conservation of the Delta and the sustainable use of the land and biodiversity of the ODRS. The TDP on the other hand was planned to conserve the tourism and also to ensure the effective planning and regulation of tourism in the Okavango Delta. It is upon this reasoning that the Okavango Delta was proclaimed a RAMSAR site because of its high biodiversity value, whilst also having capacity

		to provide reasonable levels of natural resources to its local inhabitants, and provide significant socio-economic benefits to the nation as a whole through tourism. The harmonization of the TDP and the ILUP was concluded in early 2008 to ensure that minimal land use conflicts and maintenance of good practice on biodiversity conservation within the ODRS are achieved. 7. Extension of the Integrated Land Use Plan Beyond the ODRS During the preparation process of the Okavango Delta Management Plan, an Integrated Land Use Plan (ILUP) for the Okavango Delta Ramsar Site (ODRS) was developed. However, the ODRS is just a portion of the Ngamiland District, whose core is the Okavango Delta. The Department of Lands has commissioned a consultancy to develop and extend the Integrated Land Use Plan to those portions of the Ngamiland District that were then left out. Upon its completion, this effort ensured that the entire Ngamiland District would have been mapped, producing a district-wide land use plan. Upcoming economic activities in the District with potential to alter the current land use patterns include a proposed copper mine in the Hyena Veldt farms, which will change use from farming to mining. However the lifespan of the proposed mine is estimated as 20 years, of which the land use will possibly revert to farming after rehabilitation.
	NA	Name of certification system being used (insert NA if no certification system is being applied)
	55,000km2	Area of coverage foreseen at start of project
	Wetland conservation plans and actions integrated into production sector strategies	The District concluded a management plan (ODMP) for the full 55,000 km2 area of the Okavango Delta Ramsor Site (ODRS). The ODMP identifies strategic interventions that the district intends to implement to ensure the conservation and sustainable utilization of the wetland resources of the Okavango Delta. The preparation of the plan was concluded during District Development Plan 6 (DDP6) and one of the strategies for its implementation was to mainstream it into the district and national planning processes. The ODMP therefore formed the basis for the preparation of environmental aspects of District Development Plan 7 (DDP7) and the NDP 10.The specific sector action plans identified as priorities under the ODMP have been captured in detail in the component specific strategies and contributions to DDP7 and NDP10. However, some of the specific projects proposed as cross-cutting themes for improved environmental management during NDP 10 under the ODMP include: 1. Mainstreaming environmental economics concept into development planning process. During the NDP 9 and DDP 6, the Department of Environmental Affairs (DEA) started a programme that aims at infusing environmental economics and natural resources accounting concepts as a tool that could improve development planning processes. This programme will form the basis for implementation for DDP 7 and NDP 10. The aim is to train planners at both district and national levels on environmental economics and natural resources accounting concepts. 2. Undertake environmental Audit/Strategic Environmental assessments of all sector plans. The EIA Act of 2005 requires DEA to perform regular environmental audits of projects, plans, programmes and policies. To establish the extent to which these policies, sectors plans and programmes are taking into account environmental considerations, DEA and Sector institutions propose to perform environmental audits for plans and programmes during DDP 7/NDP 10. 3. Implementation of the Multi-lateral Environment Implementation Strategy (MEA). DEA has prepared the above strategy which gives details as to how implementation of the MEAs such as the Convention

		on Biological Diversity (CBD), Ramsar Convention will be implemented. Since the Okavango Delta is a major storehouse of biodiversity, the implementation of the strategy will be benchmarked within the Okavango wetland system. It is the intentions of DEA that implementing partners such as Department of Forestry and Range Resources (DFRR), Ministry of Agriculture (MoA), and Department of Wildlife and National Parks (DWNP) incorporate the principles of the Strategy
	NA	Name of certification system being used (insert NA if no certification system is being applied)
	55,000km2	Area of coverage foreseen at start of project
	Number of tourism establishments/champions involved in water quality monitoring	The project, in partnership with DWA and ORI, has facilitated the establishment of a water quality monitoring programme across the Okavango Delta. Champions include tour operators and non-operators. 8 tourism establishments were actively involved in water quality monitoring: .Drotsky's Cabins, Nguma Island Lodge, Camp Moremi, Xakanaka Camp, Khwai River Lodge, Sandebi Camp, Splash Camp, and Eagle Island Lodge, The total concession areas covered by these tourism camps amounts to 640,313 ha. • The project has built and continues to build the capacity of tour operators in the monitoring of water quality in the Okavango Delta. Water quantity and quality are the key drivers of ecological processes that sustain biodiversity of international significance within the Okavango Delta. Several factors necessitate the need for a water quality monitoring programme for the Delta, and these factors include the following: possible development activities in Angola; agricultural and other activities in Namibia, settlements/camps/lodges/fishing/houseboats activities in Botswana. Therefore the principal reason for the water quality monitoring programme is to establish the current water quality of the Okavango Delta and future water quality trends, based on spatial and temporal factors. At some point during implementation the water quality monitoring programme was comprised of 16 monitoring sites, with a total of 8 tour operator champions, Parameters under monitoring currently cover the following: e.g. pH, electrical conductivity, dissolved oxygen, temperature, turbidity, Na, K, Ca, Mg, HCO3, CO3, Cl, SO4, PO4, Pb, Cd, Zn, Cu, Cr, Fe, Mn, Silica, Aluminium, BOD, Total phosphorus, Total nitrogen, Nitrate, Ammonium, Suspended and Dissolved solids. • Data analysis of the sampling sites has shown the following, o Potential problems around Shakawe regarding faecal e-coli o Dissolved oxygen decreases from Mohembo to Guma o Turbidity is lowest at Sepopa o During the period under study, Guma lagoon (monitored by Nguma Island Lodge) has the highest water temperature o Except for Shakawe, chloride, sulphate and nitrate decrease from Mohembo to Guma Lagoon. There is need therefore to investigate the reason why Shakawe has a higher level of anions o There is no major change in the pH, electrical conductivity and concentration of sodium and potassium over the four sites This information is used jointly with other BIOKAVANGO Project initiatives to recommend best practices in waste disposal and management, as waste disposal in the river channel or the delta deteriorates the quality of the water and poses as health hazard to the people using the water. This information is also very important to explain fish kills that occur at Guma Lagoon at the onset of floods and help or assist Fisheries Unit of DWNP to explain fisheries data.

		Through its policy and development advise structure (Project Steering Committee or PSC), the BIOKAVANGO Project has engaged the Department of Water Affairs (DWA) about the results of the water quality monitoring, especially in the relatively populated Shakawe area and in Mohembo at the Ferry-crossing area. The DWA undertook their own independent analysis upon which their results were in agreement with those of the project. Based on the BIOKAVANGO Project recommendations the DWA has made a decision to erect toilets and garbage collection containers at the Ferry-crossing area to reduce the amount of human waste and other waste that get dumped directly into the river system. The water quality monitoring programme that the BIOKAVANGO Project initiated for the Okavango Delta, has formed the basis of the systematic water quality monitoring program for the Okavango Delta, under the DWA of the Government of Botswana. The DWA's program objective is implement a systematic monitoring protocol that will determine the possible impacts of activities on the water quality and biological diversity of the Okavango Delta wetland system. The ongoing Government protocol focuses on the following parameters • insitu measurement of pH, temperature, dissolved oxygen and electrical conductivity • chemical water parameters, including total salts, alkalinity, mineral ions and metals • nutrients (nitrogen, phosphorus and total phosphates) • biological oxygen demand (BOD) and chemical oxygen demand (COD) • other physical parameters (Turbidity, colour and suspended solids-TSS) • microbiological (total coliforms and e-coli etc) • persistent organic pollutants (POPs) and toxic compounds (e.g. DDT) • aquatic vegetation diversity • sediment transport • pollution control Such a monitoring program is an early warning system/risk analysis system that signals or predicts changes or changes or trends in the quality of water of the Okavango Delta, so that curative or preventive measures can be taken to restore and maintain ecological balance in the water body.
	NA	Name of certification system being used (insert NA if no certification system is being applied)
	10 camps/logdes/institutions	Area of coverage foreseen at start of project
	Number of tourism establishments involved in the monitoring and management of alien aquatic invasive species (Salvinia molesta-Kariba weed)	3 tourism establishments are actively involved in the monitoring and management of alien aquatic invasive weed Salvinia molesta: These are Camp Moremi, Xakanaka Camp, Sandebi Camp. The concession area covered by the three camps is more than 100,000 ha, The actual area of Salvinia cover before the start of the project was ca.7.5ha, and has now been reduced to ca.1.8ha. Salvinia molesta weed is an alien invasive species, and poses threat to the Okavango Delta's indigenous biodiversity. Extensive weed spread could be detrimental to the ecological, hydrological and biochemical processes of the wetland system, the same processes that are key fabric to livelihoods of rural communities and operations of private entrepreneurs. The Department of Water Affairs (DWA) has been managing the weed by physical and bio-control programs in the Delta for more than 25 years. Despite this effort, the DWA has continued to experience constraints in implementing the program, hence the need to build the capacity of tourism operators in the Delta to take part in the biological control and monitoring of the Salvinia molesta programme. The roll-out of the control and monitoring program to tourism operators was initiated in 2007.

		Achievements made so far include the following. • Inception workshop on the proposed intervention on the control of Salvinia molesta was held with stakeholders on early 2007 • Champion camps in the Delta: Camp Moremi; Xakanaka Camp; Sandebi Camp; and Khwai River Lodge; Replication at Sankuyo Community Development Trust and Selinda Camp at Selinda Canal • Training workshop held on October 14th to 18th 2007 for tour operators, guides, managers and government departments (e.g Water Affairs and the Department of Wildlife and National Parks). Training was both theoretical and practical with hands on activities. • 10 guides/managers from the 5 champion tour camps selected and trained, The training also included government partners and CBOs • Most of the camps committed to control and monitor Salvinia molesta. • One on one in-house follow-up training of champions conducted in all 5 camps involved in the monitoring programme. • Equipment (porta pools for breeding weevils, funnels, weevils collection cups) purchased by the project, installed in all 5 camps, and demonstration of use by experts conducted. • Data capture sheets produced for recording of information on distribution trends, densities of weed and weevils introduced and other necessary parameters. • Champions trained in data capturing and recording in the data sheets • A private sector partner, CCA Africa (through its Sandebi Camp) has established an "adopt a weevil" campaign through which their clients (tourists) can sponsor the company's ongoing Salvinia molesta control programme in partnership with local communities. The Camp is also involved in bio-monitoring using macro invertebrates and water quality. • Training modules for champions developed on the biological control of Salvinia molesta and water quality monitoring • A simplified poster on Salvinia molesta control and monitoring developed for wider dissemination of the intervention • Assessment of champion's participation in the programme undertaken. Champions indicate a strengthened commitment and commit to allowing more of their tour guides to be trained in the Salvinia molesta programme • Assessment of the areas in which champions administer the programme indicated successful implementation by the project champions • Successful exhibition of the implementation of the Salvinia molesta control programme at the 2009 World Wetlands Day Commemoration • After a long time debate with the Government to engage an extra professional in the Aquatic Vegetation Control Unit (AVCU) – the Unit that deals with control of invasive alien species, DWA ultimately employed a Biologist to understudy the only expatriate professional who has been alone for more than a decade. This will go a long way in the bio-control and monitoring of Salvinia in the Okavango Delta since there is now an officer who is solely focused and working on this. • A poster presentation on Addressing Biodiversity Loss Through Bio-Control And Monitoring Of Alien Aquatic Invasive Species (Salvinia Molesta) in the Okavango Delta was made at the 14th Meeting of the Subsidiary Body on Scientific, Technical and Technological Advice of the Convention on Biodiversity, 10-21 May 2010, Nairobi, Kenya • DWA is now concluding the incorporation of Salvinia aspects (and other aquatic invasive weeds) into

		the existing teaching modules of the Botswana Wildlife Management Institute (BWTI). The general theme of the work being incorporated is "Alien aquatic invasive species and their control", with specific focus on some of the following: ecological significance of weeds, types of weeds, major aquatic weeds in Africa/world, the Botswana Aquatic Weed Control Act, and the biological control of S. molesta, water lettuce (pistia), water haycinth in Botswana.
	NA	Name of certification system being used (insert NA if no certification system is being applied)
	3 camps	Area of coverage foreseen at start of project
	Number of Joint Resource Management Systems for resolving natural resources management conflicts	A joint management system for natural resources management and tourism has been established at the Tubu/NG 25, Shorobe, and Okavango Fishers Management Committee pilot sites. i) For the Tubu/NG25 pilot site, the JMC has facilitated the development of a JMS (using participatory adaptive management approaches) for natural resources conflicts and tourism. The JMC also facilitated the development of a participatory adaptive Management Plan for veldt products harvesting and utilization for Tubu area (found in a mixed farming area-NG8), that resonates with the Management Plan for concession NG25 (photographic tourism). The Plan development process has been concluded and components of the Plan are under implementation. Some of the key outputs include the following five key community workshops held from 2010 to-date, as per the details below: • Community workshops were held to present the Intergrated Management Plan to the wider Tubu community. The Plan was developed by the Tubu and it needed legitimacy from the rest of the community members. In particular, the role of the larger community was discussed in view of the Plan's implementation. The community expressed gratitude at the leadership guidance by the JMC on village developments based on natural resource use. • Community workshops to introduce Management Orientated Monitoring System (MOMS) to the community and select suitable candidates for training as Community Rangers for collecting MOMS data. 12 Community Rangers were selected and are interacting with the wider community during their data collection exercises, hence need for community to be informed to know what is expected of them. Twelve Community Rangers were trained in collecting MOMS data over a 6 months period. • Board members of the community company, Green Visit, were trained in corporate practice principles in order for the company to gain trust and legitimacy before the community. • The results of MOMS for the six months period (Nov 09-May 2010) were presented to the rest of the Tubu community. The results show that Crododiles are the number one problem animal, responsible for most livestock deaths ahead of Lions and Hyenas. All arable farmers practice Molapo (flood-recession) farming and on average plough one hactare or less and plant maize. The twelve Community Rangers have consistently produced monthly MOMS reports (Yellow books) for the six months. The porcupines were the main problem animals damaging crops in the fields. Goats were the most killed, particularly by Crocodiles and Hyenas. As the data collection has been standardised, an SPSS data base is being developed for the MOMS data. The private operator of (NG 25 Concessionaire, which is photographic tourism) has committed to provide support to the JMC, including clients from his concessionaire to the proposed cultural village. This will reduce pressure on veldt products/biodiversity in the concession NG 25. The formation of Tubu Community Trust is seen as a vehicle to facilitate partnership between Ngamiland Adventure Safari (operating NG 25 Concession area) and the community. The Ngamiland Adventure Safaris has already committed resources to the development of the Tubu tourism cultural village and this

		initiative has provided a platform for the two parties who used to fail to resolve their veldt products and related conflicts to amicably discuss their concerns and problems, and finally reach a consensus that will ultimately reduce pressure exerted on natural resources in NG 25. ii) The Okavango Fishers Management Committee (OFMC) is a fisheries joint conflict resolution mechanism operating in the Upper Panhandle. The OFMC facilitated formulation and implementation of the Code of Conduct for Sustainable Fishing, established fishing free zones/set asides through participatory approaches, and is spearheading the monitoring of fish related indicators in the area.
	NA	Name of certification system being used (insert NA if no certification system is being applied)
	2 JMC	Area of coverage foreseen at start of project
	Number of tourism establishments involved in the monitoring and management of tourism impacts	8 tourism establishments are currently involved in the monitoring and management of tourism impacts. Birdlife Botswana recognizes the Okavango Delta as an Important Bird Area (IBA) in the world, and the Wattled Crane, an indicator species, is protected through the Wildlife Conservation and National Parks Act of 1992. The population of the Wattled Crane over the years was dwindling. However, information from sightings done by both Birdlife Botswana, Tour operators and volunteer bird watchers indicate constant stable Wattled crane's population (1400) across the Okavango Delta, since 2005 (Birdlife Botswana Surveys, 2005). The Slaty Egret population has also been stable since 2005 at 4000 in the Delta. Some partner institutions (e.g. tour operator companies) have established systems to monitor the impacts of tourism on biodiversity within their concessions. The focus is on indicator species – For instance the Ngamiland Adventure Safaris operating in Concession NG 25 recorded 28 Sitatunga (Tragelaphus spekii ; listed as a globally threatened species) in 1999 and about 56 in 2008. Ngamiland Adventure Safaris also supports Birdlife Botswana in the monitoring of key bird species (e.g. Slaty Egret and Wattled Crane). Other partner companies including Okavango Wilderness Safaris (OWS) are also monitoring key biodiversity in the Delta. The BIOKAVANGO Project, through the review and revision of the Wildlife Management Areas (WMA) Regulations and Lease Agreements, has standardizing the monitoring systems across concessions, by codifying clauses that oblige concessionaires to monitor impacts of their activities on biodiversity. The Department of Wildlife and National Parks within the Ministry of Environment, Wildlife and Tourism (MEWT) carry out wildlife aerial census surveys over the Okavango Delta, These Surveys are supposed to be carried out on an annual basis to monitor changes in key wildlife species. However due to lack of funds, the Department is sometimes unable to carry out the surveys; For instance the last survey was done in 2006. This is a gap which could easily be filled up, if all tour operators in the Delta were empowered to do ground monitoring in their concessions. If acceptable ground monitoring protocols could be developed for concessionaires, they would greatly complement government efforts. However, species such as the Red Lechwe and the Sitatunga which are indicator species in the Okavango Delta have had their populations drastically reduced over the past few decades. These species are now showing signs of recovery due to conservation efforts put in place by various players. The DWNP Census of 2006 and 2005 revealed 36, 983 and 160 estimated populations for Red Lechwe and Sitatunga respectively, over the Delta. These numbers could also be reflecting increased flows in the Okavango Delta as the populations can be directly linked to habitat availability, which is a function of flooding patterns.

	NA	Name of certification system being used (insert NA if no certification system is being applied)
	70 camps	Area of coverage foreseen at start of project
	Number of tourism operations certified	About 8% of all tourism establishments in the Delta proper are certified using the Botswana Ecotourism Certification System (BECS), which was jointly developed by the project and the Botswana Tourism Organization. In the first round of eco-certification, nationwide (till end of 2009), 11 Lodges and Camps completed the self assessment forms and were audited by the Ecotourism Assessors. Out of the 11 lodges and camps that applied for eco-certification, 7 were certified whilst 4 did not qualify for eco-certification. The seven camps certified at the different levels include i) Ecotourism level: Little Vumbura Camp; Savuti Bush Camp, Zarafa Camp, ii) Green+ level: Jao Camp; Kwetsani Camp, iii) Green level: Nxai Pan Camp; Vumbura Plains Camp. Five (Little Vumbura Camp, Jao Camp, Vumbura Plains Camp, Kwetsanai Camp and Zarafa Camp) out of the seven lodges and camps that were eco-certified are located within the Okavango Delta, and constitutes about 8% of all tourism establishments in the Delta proper.
	Botswana Ecotourism Certification System (BECS)	Name of certification system being used (insert NA if no certification system is being applied)
	60 camps	Area of coverage foreseen at start of project
	Joint Fisheries Resources Monitoring and Management/% Area of fish production wetland under improved fisheries management systems	Fisheries Pilot Sites NG 11 – (Mohembo, Ngarange, Shakawe and Samochima) NG 8 - Tubu and surrounding areas, covering an area of more than 55,000ha (both land and water). Initiatives geared towards the setting up of an improved joint management fisheries system are ongoing in the Upper Panhandle of the Okavango Delta, with the view to minimizing user conflicts surrounding the use of fish resources. These efforts are estimated to be covering an area equivalent to more than 30,000ha. Ongoing work will lead to the development of management strategies at a local level that sustain fish numbers and diversity, without impediment from the currently prevailing system of open access to fisheries. Fisheries stakeholders in the Upper Panhandle established the Okavango Fisheries Management Committee (OFMC). This achievement is viewed by many resource users as a key establishment and as a tool to consolidate a conducive environment with reduced or minimal conflicts for an improved fisheries management. • The OFMC is constituted of representatives of existing structures (OFA, Boiteko trust, Teemashane trust, Itekeng recreational fishers trust, all 3 private tour operators, individuals from the community, ORI, Northwest District Council – Env. Health, and Government Departments- Department of Water Affairs, Department of Tourism, DWNP-Fisheries Division). • The OFMC is chaired by ORI and the secretary is DWNP-Fisheries Division • The OFMC main role is to bring fishers' stakeholders together to implement and sustain project interventions that are geared towards an improved fisheries management system under a co-management regime. Other responsibilities of the OFMC include: The OFMC has now facilitated the development of a Code of Conduct for sustainable fishing, which was launched early in the year 2010. The OFMC has addressed the issue of open access by setting aside areas (fishing free zones) for fish monitoring and management. The goal for the fishing free zones is to create a refuge for fish to breed, grow and replenish stocks. This area is also serving to

		conduct research in various aspects of fish spawning, growth, etc that is important for management. A participatory process was set in motion by the OFMC to establish the Code of Conduct and the Fish Free Zones for the Upper Panhandle of the Okavango Delta. The OFMC also facilitated the identification and mapping of several fishing grounds, the channels and lagoons that are blocked from the main channel. This exercise helped to inform the establishment and management of the fishing free zones. Fishers have observed the fish "closed season" for two months (January and February) as stipulated by the "Fish Protection Regulations, S.I. 41 of May 2008". The Regulations themselves have been discussed in various Kgotla meetings and fishers stakeholders meetings facilitated by the Fisheries Division and by the Project. All stakeholders (including tour operators, fishers, OFA and others) were involved. The discussions were aimed at ensuring that stakeholders understand the Regulations and have a forum to discuss issues emanating from their implementation and enforcement. Also the project wanted to understand how stakeholders perceived the Regulations, as a tool meant to minimize conflicts surrounding the use of fish resources. All in all, the stakeholders felt that the regulatory framework would contribute to an enabling environment for improved fisheries management, despite the obvious challenges associated with their implementation and/or enforcement. The fisheries regulations have been embraced and are implemented by all stakeholders at the pilot site. Notwithstanding, there are allegations that some fishers are using loopholes in the regulations to continue their commercial fishing operations under the guise of subsistence fishing. Furthermore, some commercial fishers have expressed concern in several meetings about the unforeseen negative impacts on their fishing operations which have resulted in a significant reduction in their catch rates. According to the fishers, reduced fish catches will ultimately have a detrimental impact on their major source of livelihood. Consequently, a study is planned to determine the impacts of these regulations on commercial fishing in the pilot site. Furthermore, there is concern that these regulations may introduce new conflict within the fishing community where commercial fishers masquerading as subsistence fishers may be viewed with suspicion by other commercial fishers. This suggests that while commercial fishing off take may be significantly reduced, there might be a consequent increase of subsistence off take from the factors already discussed above. The DWNP-Fisheries is taking this task so that the regulations address many hindrances so far mentioned above.
	NA	Name of certification system being used (insert NA if no certification system is being applied)
	40,000ha	Area of coverage foreseen at start of project
	Pilot sewage effluent polishing systems in place in tourism establishments	3 liquid waste polishing systems have been completed. The private sector have also set up 2 systems in camps operating in the Delta proper. The Government of Botswana (through the ODMP) funded the refurbishment of the constructed wetland liquid waste polishing system, hosted by Thuso Lutheran Rehabilitation Centre in Maun. The second constructed wetland sewage polishing system in Ngamiland District has been constructed at Mbiroba camp in Seronga. The camp belongs to Okavango Polers Trust and consists of six chalets (with 24 bed capacity) and a camping ground with a capacity of 50 campers. Previously, the camp utilised a septic tank and soakaway sewage polishing system, which was found not suitable for conditions of the Delta (lack of slope and high water table) and failed to efficiently clean effluent to the required standards (BOBS waste water standards). The third wetland polishing system has been constructed at

		the Shakawe Botswana Defence Force camp (also located on the river bank). The polishing systems cater for ten residential houses and dometries with a capacity of 100 beds. Monitoring of sewage treatment systems has been continuing. Samples have been collected from the Thuso Lutheran Rehabilitaion Centre constructed wetland system, Tsodilo Junior secondary School (utilises septic tank and soak away) and from Camp Okuti & Xakanaxa camp which utilises the Activated sludge treatment plants. Of all the three sites, the best results that meet the Botswana Bureau of Standards (BOBS) waste water standards were obtained from Xakanaxa camp. The results from Camp Okuti revealed that the system was mulfunctional as there was no change between the inffluent and the effluent. The anomaly was quickly reported to management and they summoned the company that had installed the system to attend to it. The results from Thuso wetland fluctuated as the pump that pushes the effluent out was reported not to function at times. The results from Tsodilo School were the most consistent, though not all parameters did not meet the effluent standards. A large workshop on Sewage management in the Okavango was co-organised by the Project and Department of Environmental Health of the North West District Council and it attracted many stakeholders in the District. The workshop discussed the need for the formulation of liquid waste management guidelines for the Okavango Delta, based on the assessments already carried out by the Biokavango Project. A committee comprising of key stakeholders was elected to proceed with the preparation of the guidelines. The committee (under the facilitation of the project and IWRM) recently engaged a consultant to facilitate the development of the Liquid Waste Management Guidelines for the Okavango Delta Ramsar Site. IWRM project is funding the process and would provide technical support even beyond the closure of the BIOKAVANGO Project. Another assessment on the supply and generation of hazardous substances in the Delta was completed. The results show that most of the permanent establishments transport oil, diesel, and paraffin, paint and wood preservatives of varying quantities into the Okavango Delta area. The main modes of transporting these substances into the delta are road, air and boat. A large quantity of fuel (80%) is transported by road, with the probability of large land spillage in case of an accident. The Okavango Delta is an ecologically sensitive environment whose biodiversity could be compromised by the side effects of improper transportation, handling and storage of hazardous substances. Some of these substances contain high levels of heavy metals and dioxins that could alter the ecosystem. The outputs from the above assessment are contributing towards the development of Best Practice manual for Handling, Transportation and Storage of hazardous substances (specifically fuel and oil
	NA	Name of certification system being used (insert NA if no certification system is being applied)
	4	Area of coverage foreseen at start of project
	Total increase in investment by tour operators in wetland management	Since 2006, increase in tourism investment by Tour Operators (Champions) in wetland management is registered as US$5,200,700, amounting to a significant increase relative to the baseline figure of US$360,000 per annum (nearly a 3 fold increase from baseline). This figure is from the project champions (private tourism companies: Desert and Delta Safaris; Kerr & Downey; Moremi Safaris; Ngamiland Adventure Safaris; Orient Express; Okavango Wilderness Safaris and & Beyond Safaris) in the Delta, who entered into an agreement to co-finance the project. This bears testament to their support for the mainstreaming of biodiversity conservation objectives into the tourism sector of the Delta. Partner tourism operators have started to enhance their environmental management systems: covering areas such personnel specializing in environmental

		management; improved waste management systems; introduction of energy efficient systems; water conservation strategies; biodiversity monitoring systems (including monitoring of globally threatened species). World Travel & Tourism Council (WTTC) awarded the Okavango Delta Ramsar Site (ODRS) the 2010 Destination Stewardship Award. The Okavango was one of the three finalists in that category which included Mount Huangshan Scenic Site in China (host country for the awards) and County of Montenegro (Eastern Europe). The Botswana Tourism Board (now Botswana Tourism Organisation) had submitted the ODRS in the competition. During the visit to the Okavango by the two judges from WTTC, the Biokavango Project made presentations to them on biodiversity conservation initiatives. The judges, among others, visited three of the Biokavango project pilot sites (Tubu village-joint managenent system; Samochima-improved fisheries management; and Seronga-constructed wetland polishing system). In their (judges) final verdict, the judges referred amongst other things, to the availability of structures and guiding tools that allow the Okavango to be a well managed tourist destination; they cited as an example, the Ecotourism Best Practice Manual (2008) that was jointly produced by the Botswana Tourism Organisation and the Biokavango Project. The information about the award is available at http://www.tourismfortomorrow.com/Winners/2010 Winners and Finalists/botswana-tourism-board/
	NA	Name of certification system being used (insert NA if no certification system is being applied)
	US$360,000.00 pa	Area of coverage foreseen at start of project
	% BD management actions recommended by OWMC implemented by District regulatory authorities	About 60% of BD management actions recommended by OWMC are implemented by district regulatory authorities. The OWMC was institutionalized as a permanent sub-committee of the DDC (District Development Committee), the highest decision making structure on planning and development at the district level. The OWMC co-delivers its mandate in partnership with DLUPU (District Land Use Planning Unit) through quarterly meetings where planning issues/problems are discussed, and recommendations forwarded to regulatory agencies for implementation through the DDC. Some of the issues/actions recommended to the DDC (and actual discussed and acted upon) include the following: i) the need to declare the ODRS a planning area under the Town and Country Planning Act; ii) the non recognition of flood recession (Molapo) farming by local authorities in relation to other Government programmes and policies such as ISPAAD; iii) compensation for damaged crops by wildlife in Molapo fields across the ODRS; iv) the demarcation and gazettement of elephant corridors which were identified during the formulation of the ODMP-land allocations to consider discouraging homesteads and agricultural fields in wildlife corridors; v) the mushrooming and gazzettement of settlements within the ODRS which do not take into consideration BD management objectives; vi) clarity on free development areas along the periphery of the Okavango River that was proposed in the Integrated Land Use Plan of the ODRS formulated during the ODMP; vii) the need to have better storage for handling of waste especially between transfer stations; viii) the need for collaboration between licensing authorities to address key environmental issues (e.g. burrow pit mining and rehabilitation) in the district; ix) the need to monitor waste along major roads across the ODRS by the NWDC. Currently, the foregoing issues are being addressed by key institutions such as TLB, DEA, and NWDC. The OWMC has a diversity of stakeholders: the civil society, NGOs, Community trusts and Government

		institutions which regularly participate in its quarterly meetings. TLB and DEA form the secretariat of the OWMC and will remain so post the BIOKAVANGO project. Some of the OWMC members are part of the reference group that is finalizing the TDA for the Okavango River basin; signifying that their mandate extends beyond the Delta. The TDA culminates into a Strategic Action Plan (SAP) for the Basin, forming the basis for the formulation of National Action Programs. The co-opted members provide feedback to the larger OWMC membership on issues of the River Basin through their scheduled meetings. A detailed analysis of records (minutes etc) determines the percentage of Biodiversity management actions recommended by the OWMC and its sub-committee (operating under the National Coordinating Unit for the Basin) and implemented at District and Basin levels.
	NA	Name of certification system being used (insert NA if no certification system is being applied)
	1	Area of coverage foreseen at start of project
	Certification System for tourism operations established	Botswana Ecocertification System (BECS) was successfully prepared for Accommodation facilities and Ecotours, and the System is implemented by the Botswana Tourism Organization (BTO). Three levels were adopted for use in this System; Green, Green+ and Ecotourism. The first two categories have been included to cater for those establishments that could never attain ecotourism level, but are nonetheless making substantial investment in environmental conservation. The system covers the whole country, 582,000km2. The development of the Grading Standards for Mobile Safaris in Botswana is ongoing. A consultant has been engaged by the Botswana Tourism Organization (BTO), to facilitate the process. Stakeholder consultation workshops have been held and the process should be concluded mid 2011. These standards would define different types/classes of Camping Grounds and allowable services and facilities in each. So far categories of camping grounds identified include urban, wilderness etc. This is follow-on work on the Botswana Ecotourism Certification System (BECS).
	BECS	Name of certification system being used (insert NA if no certification system is being applied)
	16,000km2	Area of coverage foreseen at start of project
	Number of small enterprises supporting livelihoods from sustainable use of natural resources	i) Shorobe Multipurpose Cooperative: Running profitably from crafts made from palms and other dye plants that are sustainably harvested from the wild. The group started operating in May 2010, and within six months had made a profit of over BWP 10,000 (~1,600US$) ii) Boiteko Trust/Syndicate and Teemacane Trust: These two are commercial fishing community groups that have been empowered by the project to do sustainable fishing. Profits for these small enterprises increased from BWP 1400/individual in 2004 to BWP2200/individual in 2008/9. iii) Itekeng Trust in the eastern Panhandle is about to complete setting up a community cultural fishing/recreational model, which is expected to support livelihoods while conserving biodiversity.
	N/A	Name of certification system being used (insert NA if no certification system is being applied)
	2	Area of coverage foreseen at start of project

5. For those projects that have identified market transformation as a project objective, please describe the project's ability to integrate biodiversity considerations into the mainstream economy by measuring the market changes to which the project contributed. The sectors and subsectors and measures of impact in the table below are illustrative examples, only. Please complete per the objectives and specifics of the project.

		Unit of measure of market impact
Name of the market that the project seeks to affect (sector and sub-sector)	*E.g., Sustainable agriculture (Fruit production: apples)*	*E.g., US$ of sales of certified apple products / year*
	E.g., Sustainable forestry (timber processing)	*E.g., cubic meters of sustainably produced wood processed per year*

Name of the market that the project seeks to affect (sector and sub-sector)		Unit of measure of market impact

Part V. Policy and Regulatory frameworks

6. For those projects that have identified addressing policy, legislation, regulations, and their implementation as project objectives, Please complete these tables for each sector that is a primary or a secondary focus of the project. Please answer (1 for YES or 0 for NO) to each statement under the sectors that are a focus of the project.

Biodiversity considerations are mentioned in sector policy		
Agriculture		Yes = 1, No = 0
Fisheries	1	Yes = 1, No = 0 (The ongoing review of the Wildlife Conservation Policy of 1986, now includes fish as part of the definition for wildlife)
Forestry		Yes = 1, No = 0
Tourism	1	Yes = 1, No = 0 (The 1990 Tourism policy included considerations for environmental impacts of tourism but biodiversity was not specifically mentioned. However the revised draft policy from the ongoing review mentions biodiversity considerations)
Other (Water)	0	Yes = 1, No = 0
Biodiversity considerations are mentioned in sector policy through specific legislation		
Agriculture		Yes = 1, No = 0

Fisheries	1	Yes = 1, No = 0 (The Fisheries Regulations of May 2008)
Forestry		Yes = 1, No = 0
Tourism	1	Yes = 1, No = 0 (The Tourism Act of 2009)
Other (Water)	1	Yes = 1, No = 0 (There is NO mention of BD consideration in the National Water Master Plans. However aquatic alien invasive species are covered specifically in the Aquatic Weeds Control Act. and the Water Act regulates pollution and abstraction of surface waters)
Regulations are in place to implement the legislation		
Agriculture		Yes = 1, No = 0
Fisheries	1	Yes = 1, No = 0 (Fisheries Control Regulations were promulgated in 2008, but have omissions regarding set asides (for fish regeneration) in open access systems. The regulations also fail to address issues of joint management models to eliminate or control or manage conflicts within open access waters).
Forestry		Yes = 1, No = 0
Tourism	1	Yes = 1, No = 0 (Subsequent to the formulation of the 1990 Tourism Policy there were a number of policy instruments that were enacted and these included the Botswana Tourism Master Plan (2000), the Botswana Tourism Development Frame Work (2001), The Botswana National Ecotourism Strategy (2002), and the Tourism Act (1992) and Tourism Regulations (1996). However, there is need for review of the Regulations to align with the updated Tourism Policy)
Other (Water)	1	Yes = 1, No = 0 (Regulations are part of the Aquatic Weeds Control Act and the Water Act)
The regulations are under implementation		
Agriculture		Yes = 1, No = 0
Fisheries	1	Yes = 1, No = 0
Forestry		Yes = 1, No = 0
Tourism	1	Yes = 1, No = 0 (The system for implementation and the coordination between institutions is weak)
Other (Water)	1	Yes = 1, No = 0 (Water Act and the Aquatic Weed Control Act, through the Department of Water Affairs)
The implementation of regulations is enforced		
Agriculture		Yes = 1, No = 0

Fisheries	1	Yes = 1, No = 0 (Implementation has just been initiated, hence too early to judge)
Forestry		Yes = 1, No = 0
Tourism	1	Yes = 1, No = 0 (The system for implementation and the coordination between institutions is weak)
Other (Water)	1	Yes = 1, No = 0 (The system for implementation and the coordination between institutions is weak)
Enforcement of regulations is monitored		
Agriculture		Yes = 1, No = 0
Fisheries	1	Yes = 1, No = 0
Forestry		Yes = 1, No = 0
Tourism	1	Yes = 1, No = 0 (The system for implementation and the coordination between institutions is weak)
Other (Water)	1	Yes = 1, No = 0 (to some extent, but implementation and the coordination between institutions is weak)

All projects please complete this question at the project mid-term evaluation and at the final evaluation, if relevant:

7. Within the scope and objectives of the project, has the private sector undertaken voluntary measures to incorporate biodiversity considerations in production? If yes, please provide brief explanation and specifically mention the sectors involved. An example of this could be a mining company minimizing the impacts on biodiversity by using low-impact exploration techniques and by developing plans for restoration of biodiversity after exploration as part of the site management plan.

The BIOKAVANGO Project has facilitated the incorporation of biodiversity objectives in the tourism sector by the tourism operators. As an appreciation of the need to integrate biodiversity considerations, the champions (tour operators) use their resources to undertake monitoring of the water quality, control and monitoring of the alien invasive Salvinia molesta weed, and the monitoring of water quality using macro-invertebrates, in the Okavango Delta.The same tourism operators, while undertaking their daily activities (game drives and boat cruises for tourists) monitor and control salvinia molesta alien species. When they identify an infested area they undertake an intensive assessment to see if there are weevils (Cyrtobagous salviniae) controlling the weed. In cases where there are no weevils the tour guides will take the weevils from the breeding pools in their camps and release them in the infested areas as a bio-control measure.

All the companies that are champions (tourism operators) in the implementation of the BIOKAVANGO Project have employed Environmental Officers to ensure that their operations are done in an environmentally friendly manner, and in a manner that does not jeopardize conservation of biodiversity. The companies have also developed environmental management programmes that include surveys on annual censuses of wild animals within their concessions, inventory of plant species and monitoring, waste water management. These environmental management programmes have gone a long way to incorporate the water quality monitoring and salvinia molesta bio-control initiatives within the schedules of the tour guides.

Under the Fisheries component of the project, the private sector (mainly lodge owners- tour operators) have actively joined other stakeholders at the pilot sites and are members of the Okavango Fishers Management Committee (OFMC). This is a joint management committee (JMC) that has voluntarily advocated for the delineation of no-fishing areas for fish biodiversity monitoring and management. This committee also defined a Code of Ethics/Conduct for sustainable fishing in the area, incorporating mechanisms for self policing to facilitate fisheries management in the pilot sites. Some of the key stakeholders in this committee (i.e. recreational and commercial fishers) are also voluntarily involved in fish data collection. In the tourism

component of the project, a private tour operator in NG25 concessionaire has volunteered his knowledge and resources towards reducing the conflicts in an effort to incorporate biodiversity considerations in his business. The Ngamiland Adventure Safari operator has committed to provide clients from his concession area to the proposed Tubu cultural village. This will reduce pressure on biodiversity in the concession. The formation of Tubu Community Trust/Company is seen as a vehicle to facilitate partnership between Ngamiland Adventure Safari (operating NG 25 Concession area) and the community. The Ngamiland Adventure Safaris has already committed resources to the development of the Tubu tourism cultural village and this initiative has provided a platform for the two parties who used to fail to resolve their veldt products and related conflicts to amicably discuss their concerns and problems, and finally reach a consensus that will ultimately reduce pressure exerted on natural resources in NG 25.

Part VI. Tracking Tool for Invasive Alien Species Projects in GEF 4 and GEF 5

Objective: The Invasive Alien Species Tracking Tool has been developed to help track and monitor progress in the achievement of outcome 2.3 in the GEF-5 biodiversity strategy: "improved management frameworks to prevent, control, and manage invasive alien species" and for Strategic Program 7 in the GEF-4 strategy.
Structure of Tracking Tool: The Tracking Tool addresses four main issues in one assessment form:
1) National Coordination Mechanism;
2) IAS National Strategy Development and Implementation;
3) Policy Framework to Support IAS Management; and
4) IAS Strategy Implementation: Prevention, Early Detection, Assessment and Management.
Assessment Form: The assessment is structured around six questions presented in table format which includes three columns for recording details of the assessment, all of which should be completed.
Next Steps: For each question respondents are also asked to identify any intended actions that will improve performance of the IAS management framework.

Prevention, control, and management of invasive alien species (IAS) Tracking Tool

Issue	Scoring Criteria	Place your score here	Score:	Comment	Next Steps
National Coordination Mechanism					
1) Is there a National Coordination Mechanism to assist with the design and implementation of a national IAS strategy? (This could be a single "biosecurity" agency or an interagency committee).	National Coordination Mechanism does not exist		0		
	A national coordination mechanism has been established		1		

	The national coordination mechanism has legal character and responsibility for development of a national strategy (*roles and responsibilities of the different institutions/divisions are well defined within the coordination mechanism)*		2		
	The national coordination mechanism oversees implementation of IAS National Strategy		3		
	Bonus point: Contingency plans for IAS emergencies exist and are well coordinated		1		
IAS National Strategy Development and Implementation					
2) Is there a National IAS strategy and is it being implemented?	IAS strategy has not been developed		0		
	IAS strategy is under preparation or has been prepared and is not being implemented		1		
	IAS strategy exists but is only partially implemented due to lack of funding or other problems		2		
	IAS strategy exists, and is being fully implemented		3		
Policy Framework to Support IAS Management					
3) Has the national IAS strategy lead to the development and adoption of comprehensive framework of policies, legislation, and regulations across sectors.	IAS policy does not exist		0		
	Policy on invasive alien species exists (Specify sectors in comment box if applicable)		1		

	Principle IAS legislation is approved (Specify sectors in comment box if applicable. It may be that harmonization of relevant laws and regulations to ensure more uniform and consistent practice is most realistic result.)		2		
	Subsidiary regulations are in place to implement the legislation (Specify sectors in comment box if applicable)		3		
	The regulations are under implementation and enforced for **some** of the main priority pathways for IAS (Specify sectors in comment box if applicable)		4		
	The regulations are under implementation and enforced for **all** of the main priority pathways for IAS (Specify sectors in comment box if applicable)		5		
	Enforcement of regulations is monitored (Specify sectors in comment box if applicable)		6		
4) IAS Strategy Implementation Prevention					
4) Have priority pathways for invasions been identified and actively managed and monitored?	Priority pathways for invasions have not been identified.		0		
	Priority pathways for invasions have been identified using risk assessment procedures as appropriate		1		

	Priority pathways for invasions are being actively managed and monitored to prevent invasions (In comment section please specify methods for prevention of entry: quarantine laws and regulation, database establishment, public education, inspection, treatment technologies (fumigation, etc) in the comment box.)		2		
	System established to use monitoring results from the methods employed to manage priority pathways in the development of new and improved policies, regulations and management approaches for IAS		3		
Early Detection					
5) Are detection, delimiting and monitoring surveys conducted on a regular basis?	Detection surveys[1] of aggressively invasive species (either species specific or sites) are not regularly conducted due to lack of capacity, resources, planning, etc		0		
	Detection surveys (observational) are conducted on a regular basis		1		
	Detection and delimiting surveys[2] (focusing on key sites: high risk entry points or high biodiversity value sites) are conducted on a regular basis		2		
	Detection, delimiting and monitoring surveys[3] focusing on specific aggressively invasive plants, insects, mammals, etc are conducted on a regular basis		3		

	Bonus point: Data from surveys is collected in accordance with international standards and stored in a national database.		1		
	Bonus point: Detection surveys rank IAS in terms of their potential damage and detection systems target the IAS that are potentially the most damaging to globally significant biodiversity		1		
Assessment and Management: Best practice applied					
6) Are best management practices being applied in project target areas?					
	Management goal and target area undefined, no acceptable threshold of population level established		0		
	Management goal and target area has been defined and acceptable threshold of population level of the species established		1		
	Four criteria are applied to prioritize species and infestations for control in the target areas: 1) current and potential extent of the species; 2) current and potential impact of the species; 3) global value of the habitat the species actually or potentially infests; and 4) difficulty of control and establishing replacement strategies.		2		

	Eradication, containment, control and management strategies are considered, and the most appropriate management strategy is applied to achieve the management goal and the appropriate level of protection in the target areas (Please discuss briefly rationale for the management strategy employed.)		3		
	Bonus point: Monitoring system (ongoing surveys) established to determine characteristics of the IAS population, and the condition of the target area.		1		
	Bonus points: Funding for sustained and ongoing management and monitoring of the target area is secured.		3		
	Bonus point: Objective measures indicate that the restoration of habitat is likely to occur in the target area.		1		
TOTAL SCORE		0			
TOTAL POSSIBLE		29	29		

[1] Detection survey: survey conducted in an attempt to determine if IAS are present.
2] Delimiting survey: survey conducted to establish the boundaries of an area considered to be infested or free from a pest.
[3] Monitoring survey: survey to verify the characteristics of a pest/IAS.

Annex 8. Co-financing summary by end of project

Financial sources	Amount used in Project Preparation (PDF A, B, PPG)	Amount committed in Project Document	Additional amounts committed after ProDoc finalization	Estimated Total Disbursement by end of project
GEF contribution	280,000	4,000,000	0	4,280,000
Co-financing In-kind				
Central government	50,000	3,520,000	0	3,520,000
Parastatal (UB)	130,000	1,500,000	900,000	2,400,000
Local goverment		**100,000**		100,00
Other government	0	0	2,500,000	2,500,000
Bilateral donor (SIDA)	0	720,000	0	720,000
Bilateral donor (DANIDA)		1,518,000		1,518,000
Bilateral donor (DED)		190,000		190,000
International organization (UVA)		102,000		102,000
NGO international (IUCN)		1,070,000		1,070,000
NGO local (KCS)	100,000	300,000	0	300,000
Private sector	0	3,110,000	2,090,700	5,200,700
Total Co-financing	**280,000**	**12,130,000**	**5,490,700**	**17,620,700**
Total for Project 2011	**560,000**	**16,130,000**	**5,490,700**	**21,900,700**

The co-financing committed in the Project Document amounted to US$12,130,000. Additional co-financing committed after Project Document finalization amounted to US$5,490,700, and mainly comes from new partners in the private sector (e.g. Ngamiland Adventure Safaris, Moremi Safaris, Botswana Tourism Organisation and others) and government (e.g. Tawana Land Board, Department of Water Affairs and others). Also significant increases were recorded in the co-finance figures committed by the private sector partners (Okavango Wilderness Safaris, Desert and Delta, Ken & Downey, & Beyond) during the ProDoc, indicating increased level of commitment to conservation in the Okavango Delta by the private sector.