



Empowered lives.
Resilient nations.



Terminal Evaluation Report for the UNDP GEF Project

Development and adoption of a Strategic Action Programme for balancing water uses and sustainable natural resource management in the Orange-Senqu River transboundary basin



Acknowledgements

I would very much like to extend my gratitude to all of the people who made this Evaluation a pleasure to carry out and who extended their hospitality, support and candid opinions.

In particular I would like to thank the entire team at the Project Coordination Unit including Nico Willemse and Zachel Koorszen who joined me for various parts of my 5,000 kilometre round trip! Also Jacqueline Sim for her assistance with finances. I would also wish to thank the ORASECOM Secretariat for their hospitality, particularly Lenka Thamae and Rapule Pule.

I am grateful to the staff at UNOPS Copenhagen who took time to talk with me both by skype and in the field. I am equally grateful to the UNDP Country Office representatives who also made time in their busy schedules to discuss the project.

I met with so many people in the field it is almost impossible to remember them all but I must mention in particular Bonang Mosiuoa in Lesotho, Abigail Engeleton in Botswana and Francois du Plessis in South Africa and Namibia (on either side of the border posts!), all of whom made a particular effort to cater to the needs of the evaluation and to make my job easier.

I also met with many technical people who were all equally helpful either face-to-face or on the telephone or skype. You all know who you are and I thank you all!! (and I beg forgiveness if I have forgotten anyone!)

David Vousden, Terminal Evaluator, 28th June 2014



Project Summary Table

Project Title: Development and Adoption of a Strategic Action Programme for Balancing Water Uses and Sustainable Natural Resource Management in the Orange-Senqu River Transboundary Basin			
Participating Countries: Botswana, Lesotho, Namibia, South Africa			
GEF Project ID	2701	GEF Focal Area	International Waters
UNDP Project ID	3243 (PIMS) 56936 (ZAF10)	GEF Operational Area	IW SP3: Balancing overuse and conflicting uses of water resources in transboundary surface and groundwater basins
Executing Agency	UNOPS	Other Regional Bodies and International Cooperating Partners	ORASECOM; BMZ/ GIZ, InWent, French GEF, European Union (EU) Desert Research Foundation of Namibia (DRFN), Conservation International (CI)
Project Financing in US\$ Dollars			
	At Endorsement of Project		At Completion of Project
GEF Trust Fund	6,300,000		6,300,000
IA/EA Funds	300,000		300,000
Governments	16,621,500		\$8.9 M at Mid-Term. Unconfirmed at TE
Others (BMZ/GtZ	3,864,000	3,864,000
	InWent:	280,000	280,000
	French GEF:	2,100,000	2,100,000
	EU:	3,500,000	3,500,000
	DRFN:	1,500,000	1,500,00
	CI:	4,200,000	4,200,000
Total Co-financing	32,365,500		
Total Project Costs	38,665,500		
PROJECT TIMEFRAME	ProDoc Signature		Original Closure
	12 August 2009 (Namibia)		September 2013
	8 September 2009 (Botswana)		
	21 September 2009 (Lesotho)		
	22 October 2009 (South Africa)		31 st July 2014
EVALUATION TIMEFRAME	Inception Report		Draft Report
	4 th May 2014		30 th June 2104
EVALUATOR	Dr. David Vousden, Independent Consultant on Water Governance		

Table of Contents

Acknowledgements.....	1
Project Summary Table.....	3
Acronyms and Abbreviations	6
Summary	7
1. Introduction.....	13
1.1 Purpose of Evaluation	13
1.2 Approach and Methodology	13
2. Project Description and Development Context.....	14
2.1 The Project – Brief Description, Objectives, Location, Start and Finish	14
2.2 The Project – National and Regional Structure	15
2.3 Problems to be addressed by Project	15
2.4 Intended Results.....	15
2.5 Changes in objectives during lifetime.....	16
2.6 Intended Stakeholders	16
3. Assessment – Project Design, Formulation and Relevance.....	18
3.1 Project Concept and Design.....	18
3.2 Relevance to Country Needs.....	19
3.3 Relevance to GEF Operational Strategy	19
3.4 Stakeholder Engagement as Envisaged in Project Design.....	19
3.5 Relevance of proposed M&E Plan.....	20
3.6 Changes in Project and Effect on Relevance	21
4. Assessment – Project Implementation and Efficiency.....	22
4.1 Orange-Senqu River Basin - Regional and National Institutions	22
4.2 Project Management at the PCU Level.....	22
4.3 Agency Management and Involvement	26
4.4 Risk Management	27
4.5 Stakeholder Participation	30
4.6 Financial Planning and Management.....	30
4.7 Cost Effectiveness in Delivery of Results	32
4.8 Co-Financing Delivery.....	32
4.9 Effectiveness of Monitoring and Evaluation Design, Work-Planning and Budgeting.....	35
4.10 Use of Results Framework for Monitoring and Adaptive Management.....	35
5. Assessment - Results, Delivery and Effectiveness (by Component).....	41
5.1 Institutional Strengthening of ORASECOM	41
5.2 Completion of the Transboundary Diagnostic Analysis	41
5.3 Preparation of the Strategic Action Programme and the National Action Plans	44
5.4 Basin Wide Stakeholder Involvement Activities	46
5.5 Demonstration Projects.....	48
5.6 Project Management as a Project Component and Deliverable.....	62
6. Assessment – Sustainability and Replicability	63
Review of Mid-term Evaluation and Responses.....	65
7. Main Conclusions, Ratings and Lessons	67
7.1 Conclusions.....	67
7.2 Lessons Learned and Best Practices	68
8. Recommendations.....	69
ANNEX 1. TERMS OF REFERENCE FOR EVALUATOR	71
ANNEX 2: EVALUATION SCHEDULE AND ITINERARY	78

ANNEX 3:	STAKEHOLDERS CONSULTED	80
ANNEX 4:	QUESTIONNAIRE.....	82
ANNEX 5:	LIST OF DOCUMENT REVIEWED	89
ANNEX 6:	EVALUATION CONSULTANT AGREEMENT FORM	90

Acronyms and Abbreviations

APR/PIR	Annual Performance Review/Project Implementation Review
BCLME	Benguela Current Large Marine Ecosystem
BMP	Best Management Practice
BMZ	Federal Ministry for Economic Cooperation and Development (Germany)
CCA	Causal Chain Analysis
CI	Conservation International
CSO	Civil Society Organisation
DRFN	Desert Research Foundation of Namibia
EA	Executing Agency
EFR	Environmental Flow Requirements
ESKOM	Electricity Supply Company (South Africa)
EU	European Union
GEF	Global Environment Facility
GIZ	Deutsch Gesellschaft für internationale Zusammenarbeit
HIV	Human Immunodeficiency Virus
IA	Implementing Agency
ICP	International Cooperation Partners
InWent	Capacity Building International (Germany)
IT	Information Technology
IW	International Waters
IWRM	Integrated Water Resources Management
JIA	Joint Irrigation Authority
MiniSASS	Mini Stream Assessment Scoring System
M&E	Monitoring & Evaluation
MTE/MTR	Mid Term Evaluation/Mid Term Review
NAP	National Action Plan
NGO	Non-Governmental Organisation
ORASECOM	Orange-Senqu River Commission
OSWREP	Orange-Senqu Water Resources Environment Programme
PAH	Polycyclic Aromatic Hydrocarbon
PCB	Polychlorinated Biphenyl
PCN	Project Concept Notes
PCP	Pentachlorophenyl
PCU	Project Coordination Unit
PDF	Project Development Fund
PIMS	Project Information Management System (UNDP)
PES	Present Ecological State
PFC	Perfluorinated Compounds
PPG	Project Preparation Grant
PFO	Perfluorooctane Sulphonate
POP	Persistent Organic Pollutant
SADC	Southern African Development Community
SAP	Strategic Action Programme
SASOL	South African Synthetic Oil Limited
TDA	Transboundary Diagnostic Analysis
TTT	Technical Task Team
TOR	Terms of Reference
TWG	Technical Working Group
UNDP	United Nations Development Programme
UNDP CO	United Nations Development Programme Country Office
UNOPS	United Nations Office for Project Services
WIS	Water Information System (of ORASECOM)
WMP	Water Management Plan

Summary

Despite considerable challenges and constraints that could not have been foreseen during project Development, the Project has delivered high quality products and has engendered strong ownership at many stakeholder levels, from village communities to senior political figures. The latter has been manifested by the SAP endorsement by the Conference of Ministers of the ORASECOM on 7 August 2014. As a consequence, and notwithstanding these constraints and challenges, the Project has received a Terminal Evaluation Rating of **6 (Highly Satisfactory)**. The project has delivered 1. A high quality TDA, 2. An equally high quality SAP endorsed by the ministers, accompanied with NAPs, and 3. Successfully implemented SAP demonstration projects on the ground. This is an International Waters foundation project that has been undertaken under a fairly limited 4-year window and with a fairly constrained budget. As such it must be considered to have been highly satisfactory in its delivery despite any overarching constraints that could have impacted on the final objectives. It has delivered everything it was designed to deliver and more besides, including a clear and obvious level of political commitment and ownership.

On this basis the Terminal Evaluator's primary recommendation would be for UNDP to seek further support and investment from GEF to implement the Strategic Action Programme in close collaboration with ORASECOM and its partners.

The following text summarises the findings of each section and defines the final evaluation ratings for the project:

Project Design and Relevance

- Considered by most stakeholders to be a dynamic and proactive concept and a well thought out project that was relevant to the needs of the countries
- Short Project Duration (4 years) – ideally should have been longer
- Results Framework poorly constructed in terms of quantifiable indicators
- Needed a much clearer work-plan and road-map for main delivery components (TDA, SAP, NAPs)
- Project could have given more consideration to the differences in capacity of different countries

Project Component Delivery

- **Outcome 1-Institutional Strengthening of ORASECOM:** Useful and valuable progress has definitely been made within this Outcome. This includes delivery of products such as the Water Information System (WIS), MiniSASS (Stream Assessment Scoring System) and general website development and maintenance. There is a need for close collaboration between ICPs on institutional strengthening when moving into IWRM and SAP Implementation.
- **Outcome 2 – Completion of the Transboundary Diagnostic Analysis:** A very High Quality TDA was produced but far too delayed to justify this level of quality. No major insights were reached beyond the preliminary TDA and the level of additional effort and associated extra time inputs delayed the start up of the SAP and NAPs development process. Although the causal chain analysis done during the TDA development and the new knowledge collected through gap filling activities (e.g. POPs survey) were very useful for the SAP and NAPs development process, the SAP and NAPs development had to rely initially quite heavily on the text of the

Preliminary TDA, especially at the beginning, as the main TDA had not been ready in time.

- **Outcome 3 – Preparation of the Strategic Action Programme:** There was a good level of stakeholder involvement and cross-sectoral input to NAPs and SAP. It is most important now to move into the SAP implementation stage swiftly, having developed the strong sense of political support demonstrated by the Ministerial endorsement of SAP. ORASECOM needs to coordinate with countries over NAP implementation. NAPs and SAP Implementation must be closely linked and coordinated. ORASECOM also needs to coordinate with and between the ICPs in order to make arrangements for a donor conference.
- **Outcome 4 – Basin Wide Stakeholder Involvement Activities:** Some very valuable and good quality awareness and involvement materials were developed by the Project along with the ORASECOM Secretariat. One innovation practiced by this project is publishing TDA (and its findings) in various formats for different target audience: 1) scientific (full) TDA, 2) coffee table book version of TDA, and 3) children's TDA. This not only helps disseminate the TDA findings to wider audience but also help various stakeholders in the basin engaged in the basin management issues. However, there was concern expressed about how much of this material remains at the Secretariat office (even at project closure) which needs to be disseminated to its target audience. ORASECOM and countries need to decide on the requirement for a Basin Wide Stakeholder Forum (versus national fora).
- **Outcome 5 – Demonstration Projects:** Some excellent practices and activities which have delivered some real on-the-ground changes and lessons which are replicable. Overall there was a high level of support and ownership from communities and from governments. One constraint was the delay in the start-up of demos which may have reduced the level of impacts (in terms of improvements) at the closure of the project. Nevertheless, the overall feedback on the demonstrations from all stakeholders was one of tremendous support and appreciation of achievement. The Commission itself and its members were highly impressed with the on-the-ground delivery from all of the demonstrations. The success of these demos has both arisen from and helped to further create clear and strong government support in all of the countries for these activities and outcomes as well as a noteworthy level of effort and voluntary input from the communities themselves who were undoubtedly very proud of their achievements and very positive about future development and expansion. This strong community support coupled with cross-sectoral government backing (even as high as the ministerial and presidential level in some cases) bodes well for further activities and replication of lessons.
- **Outcome 6 – Project Management and Coordination:** Good Inception and Quarterly Reports but the latter needed closer review, feedback and monitoring to ensure project delivery. Too many delays caused by administrative mistakes or disregard for procedural requirements. Poor communications between staff and with ORASECOM Secretariat resulting in uncertainties on project delivery. High staff turnover.

Project Management and Administration (PCU, IA and EA):

- No concerns arose during the evaluation regarding management from the Implementing Agency itself, except for some slow reaction to complete the paperwork at the office of UNDP Principle Project Resident Representative.

- Undoubtedly there were delays in many activities resulting from management and administrative hold-ups
- Complaints from stakeholders regarding contracting, procurement and general finance and administrative delays in processing
- No regular mechanism for sharing of progress or information (e.g. staff meetings) either within the PCU or with the ORASECOM Secretariat
- Too much micro-management of technical and scientific components
- Project activities gave limited focus to governance or management/policy issues in relation to the water basin, instead focusing primarily on the technical issues and analysis
- UNDP Country Offices not sufficiently engaged in project in terms of progress or next steps.

Project Finances and Co-Funding:

- Generally, the financial status of the project has been maintained well
- Some major changes were made to budget allocations early in the project which were captured in the Inception Report, Budgets and work-plans were presented to each Project Steering Committee. One criticism is that the Minutes of the PSCs do not record formal approval and adoption of these budgets and work-plans. Although this may be considered 'implicit' on the basis that they were discussed it should be a formal process of request from the Chair Person for endorsement of these items by the countries
- Original co-financing was in the order of \$32 million. During the Evaluation process and finalisation of the Report, the Evaluator only received confirmed governmental co-financing figures from the PCU from one of the four countries. No other co-financing figures were provided which made it difficult to reach a fair and balanced assessment. However, out of \$32 plus millions of co-financing pledged, about half of it was from the International Cooperation Partners supporting the ORASECOM. Their support (primarily through their own projects) has been successfully completed as planned during the project implementation period.

Sustainability and Replicability of Project Activities and Delivery:

- Despite administrative delays and time-related set-backs, all of the activities undertaken during this UNDP GEF Project have helped to contribute to the sustainability of ORASECOM and the overall river basin management approach via an Integrated Water Resource Management partnership
- The website with its valuable linkages and its all-important Water Information System (WIS) needs to be seen to be a priority tool for the Commission for monitoring and management purposes
- The high quality technical products should continue to be distributed to appropriate targets

- The demonstration projects have created some valuable lessons and practices which are highly replicable. These should be properly documented and managed by ORASECOM
- The countries have expressed their strong commitment through the Ministerial endorsement of SAP during the ORASECOM Conference of Ministers held in Windhoek, Namibia, on 7 August 2014. This high level political commitment should foster further financing of priority transboundary activities in the Orange-Senqu River basin. This, in itself, is a major output and delivery in terms of the overall objective of the Project.

Conclusions:

- The TDA Process has delivered a very valuable document despite the issues with delays. This should be seen as a living document that needs updating regularly (5-10 years)
- The SAP is an equally valuable set of guidelines and proposed interventions that address the priority concerns identified through the TDA and with which ORASECOM and other partners can now plan the way forward, using this SAP as the major environmental component of an overall IWRM
- The NAPs are equally important outcome from this project. They are essential subsets of, and should thus be seen to be an integral part of, the regional SAP process. As such, these two processes (regional SAP implementation and national implementation of the NAPs) should proceed in parallel and in close coordination. The NAPs should be implemented in pursuit of the objectives of the SAP while also meeting national priority objectives and targets.
- The demonstration projects have left an important legacy in terms of best practices and lessons for environmental flow, improved irrigation and water use, rangeland management, and associated livelihood activities, etc. However, it is important (now that ownership has been built) not to undermine expectations and to continue to find ways to support existing community partners as well as to replicate the best practices in other community areas
- As well as lessons related to Project Design and Development, a number of lessons have been learned regarding Project Management and the need for careful handling of staff problems and relationships between the project management and project partners. These should be captured by the Implementing Agency and the Executing Agency for future consideration

Recommendations:

- A. The Evaluation recommends that UNDP should collaborate with ORASECOM to identify/confirm the interests of the countries in seeking further GEF support for a SAP implementation project to follow this successful TDA-SAP/NAP process. If confirmed, this should be agreed and submitted as early as possible within the GEF 6 funding window.
- B. In order for any further initiative of this nature to move ahead, the role and support of the ORASECOM and its Secretariat is paramount as is the mutual cooperation and coordination with other funding agencies (the International Coordinating Partners) to ensure complementary efforts and best use of 'comparative advantage'.

- C. As a natural evolutionary process from the project and its outcome of Strengthening ORASECOM, the Commission supported by its Secretariat should be considered as a possible execution modality for the follow-up GEF-financed project supporting the SAP implementation.
- D. This would also provide a clear mechanism for close coordination between the IWRM process and SAP Implementation (as the environmental component of such an IWRM Plan)
- E. Consideration should be given to sustaining the technical-level working groups that have been created and evolved through the TDA-NAP-SAP process as formal advisory bodies to the National Development Process and to ORASECOM and SAP Implementation at the regional level.
- F. ORASECOM should take ownership of the outputs and replicability of the demonstration projects and oversee formal documentation of the results and lessons that can then guide further activities throughout the basin.
- G. There needs to be a stronger emphasis on cross-sectoral interaction and partnership. Currently ORASECOM is only an advisory body to primarily the water ministries. SAP implementation will need to ensure greater involvement of other government stakeholders such as environment, agriculture, tourism and energy.
- H. In this context, it is important during SAP implementation to include industry and the private sector as partners. Major players (e.g. SASOL and ESKOM) need to be engaged into the SAP implementation process and activities to assist in reducing pressure on the river basin as an ecosystem as well as a 'service provider' to farmers, communities, etc.
- I. More focus needs to go toward innovative measures to ease pressure on the Orange-Senqu River that can avoid further stress. Such measures may not always need to be 'direct'. Indirect measures that can reduce water needs or reduce interference or impact on environmental flow are also important. Examples of this could, again, involve closer partnerships with industry to demonstrate how wastage or over-use of water resources in their production cycles amounts to a 'hidden factory'.

Table 1. Project Rating Performance

Rating Project Performance		
Criteria	Comments	
Monitoring and Evaluation: Highly Satisfactory (6), Satisfactory (5) Moderately Satisfactory (4), Moderately Unsatisfactory (3), Unsatisfactory (2), Highly Unsatisfactory (1)		
Overall quality of M&E	(rate 6 pt. scale)	4
M&E design at project start up	(rate 6 pt. scale)	5
M&E Plan Implementation	(rate 6 pt. scale)	4
IA & EA Execution: Highly Satisfactory (6), Satisfactory (5) Moderately Satisfactory (4), Moderately Unsatisfactory (3), Unsatisfactory (2), Highly Unsatisfactory (1)		
Overall Quality of Project Implementation/Execution	(rate 6 pt. scale)	4
Implementing Agency Execution	(rate 6 pt. scale)	5
Executing Agency Execution	(rate 6 pt. scale)	3
Outcomes Highly Satisfactory (HS), Satisfactory (S) Moderately Satisfactory (MS), Moderately Unsatisfactory (MU), Unsatisfactory (U), Highly Unsatisfactory (HU)		
Overall Quality of Project Outcomes	(rate 6 pt. scale)	6
Relevance: relevant (R) or not relevant (NR)	(rate 2pt. scale)	2
Effectiveness	(rate 6 pt. scale)	6
Efficiency	(rate 6 pt. scale)	5
Sustainability: Likely (4); Moderately Likely (3); Moderately Unlikely (2); Unlikely (1).		
Likelihood of Sustainable Future	(rate 4pt. scale)	4
Financial resources	(rate 4pt. scale)	4
Socio-economic	(rate 4pt. scale)	3
Institutional framework and governance	(rate 4pt. scale)	4
Environmental	(rate 4pt. scale)	4
Impact: Significant (3), Minimal (2), Negligible (1)		
Environmental Status Improvement	(rate 3 pt. scale)	2
Environmental Stress Reduction	(rate 3 pt. scale)	2
Progress towards stress/status change	(rate 3 pt. scale)	3
Overall Project results	(rate 6 pt. scale)	6

ratings Scales		
ratings for Outcomes, Effectiveness, Efficiency, M&E, I&E Execution	Sustainability ratings:	relevance ratings
6: Highly Satisfactory (HS): The project had no shortcomings in the achievement of its objectives in terms of relevance, effectiveness, or efficiency 5: Satisfactory (S): There were only minor shortcomings 4: Moderately Satisfactory (MS):there were moderate shortcomings 3. Moderately Unsatisfactory (MU): the project had significant shortcomings 2. Unsatisfactory (U): there were major shortcomings in the achievement of project objectives in terms of relevance, effectiveness, or efficiency 1. Highly Unsatisfactory (HU): The project had severe shortcomings	4. Likely (L): negligible risks to sustainability 3. Moderately Likely (ML):moderate risks 2. Moderately Unlikely (MU): significant risks 1. Unlikely (U): severe risks	2. Relevant (R) 1.. Not relevant (NR) Impact Ratings: 3. Significant (S) 2. Minimal (M) 1. Negligible (N)
Additional ratings where relevant: Not Applicable (N/A) Unable to Assess (U/A)		

1. Introduction

1.1 Purpose of Evaluation

In accordance with UNDP and GEF Monitoring and Evaluation policies and procedures, all full and medium-sized UNDP support GEF financed projects are required to undergo a terminal evaluation upon completion of implementation. The Terms of Reference (TOR) for this current Evaluation (Annex 1) sets out the expectations for a Terminal Evaluation (TE) of the UNDP-GEF project entitled ‘Development and Adoption of a Strategic Action Program for Balancing Water Uses and Sustainable Natural Resource Management in the Orange-Senqu River Transboundary Basin (*ORASECOM Project*) (PIMS: 3243).

1.2 Approach and Methodology

An overall approach and method for conducting project Terminal Evaluations of UNDP-Implemented and GEF-financed projects has been developed over time and is provided in UNDP document entitled ‘Guidance for Conducting Terminal Evaluations of UNDP-Supported, GEF-Financed Projects’¹. This guidance notes that the evaluator was expected to frame the evaluation effort using the criteria of **relevance, effectiveness, efficiency, sustainability and impact**. The evaluation had to provide evidence-based information that is credible, reliable and useful. The evaluator was expected to follow a participatory and consultative approach ensuring close engagement with government counterparts, in particular the UNDP Country Office, project team, UNDP GEF Technical Adviser based in the region and key stakeholders. The Terms of Reference for this evaluation notes that the evaluator was expected to conduct a field mission to the Project Coordination Unit (PCU) in Centurion, South Africa including visits to the riparian States Botswana, Lesotho and Namibia. Interviews have been held with the following organizations and individuals: The project staff based at the PCU and at above mentioned locations, the ORASECOM Secretariat staff and Commissioners, members of the PSC, International Cooperating Partners (ICPs), and other stakeholders as suggested at the inception meeting with the PCU and the Project Manager. The evaluator has reviewed all relevant sources of information, such as the project document, project reports – including Annual APR/PIR, project budget revisions, mid-term review, quarterly progress reports, GEF focal area tracking tools, project files, national strategic and legal documents, and any other materials that the evaluator considered useful for this evidence-based assessment. A list of documents that the project team has provided to the evaluator for review is included in Annex 5 of this Terms of Reference.

Evaluations of this nature are considered to be independent and confidential. They are also required to be comprehensive and fair and must disclose the full set of findings. There are a number of other requirements relating to sound accounting procedures, accuracy and transparency which are covered by a Code of Conduct. To this effect, the Evaluator has signed a relevant Agreement Form (see Annex 6).

A set of standard ratings are used to assess the Project as provided by the Terms of Reference and UNDP.

¹ <http://web.undp.org/evaluation/documents/guidance/gef/undp-gef-te-guide.pdf>

2. Project Description and Development Context

2.1 The Project – Brief Description, Objectives, Location, Start and Finish

This Project was developed using a Project Development Fund (before the PDF modality was cancelled by GEF). \$700,000 was granted to undertake Project Development. The deliverables from this PDF were confirmed as follows:

- Undertaken a qualitative and quantitative stakeholder analysis to determine stakeholder perceptions and ranking of the priority transboundary issues.
- Prepared a draft public involvement and communication strategy building upon the ORASECOM Road-map towards Stakeholder Participation.
- Confirmed the transboundary priority issues and undertaken causal chain analyses to identify immediate, underlying and root causes.
- Developed a preliminary trans-boundary diagnostic analysis (to be further refined during the project implementation), incorporating thematic basin studies on water quantity and quality, climate change and the studies undertaken by BMZ/GTZ as a first step to the development of an Integrated Water Resource Management Plan for the Orange-Senqu River Basin.
- Agreed the institutional arrangement for an Orange-Senqu River Basin umbrella programme under which the GEF project and other international donor projects, and eventually the SAP, are to be implemented
- Agreed on a draft basin vision and water resource quality objectives, corresponding to the priority trans-boundary issues, as the framework for the Strategic Action Programme to be later developed.
- Agreed the scope, activities, outputs and outcomes of three demonstration projects addressing environmental low flows, water conservation in the irrigation sector and range land management.

Appropriate documentation resulting from the PDF was annexed to the approved final Project Document.

The final Full Project was designed to create synergies with and build upon a range of initiatives being undertaken by the countries themselves and those of bi-lateral and multi-lateral donors that have given priority to the Basin.

The long-term development/environmental goal of the project was defined as the sustainable development of the Orange-Senqu River Basin being enhanced through ecosystem-based, Integrated Water Resource Management approaches. The project objective was to improve the management of the Orange-Senqu River Transboundary Basin through the implementation of a sustainable programme of policy, legal and institutional reforms and investment options using the Transboundary Diagnostic Analysis (TDA) and Strategic Action Programme (SAP) process. In order to achieve this objective, the project set out to strengthen the capacity of ORASECOM, update the TDA, formulate a SAP and associated National Action Plans (NAPs) as part of a broader, basin-wide regional IWRM plan, undertake a range of public involvement and awareness activities focusing on trans-boundary activities, and undertake demonstration projects that implement key aspects of the SAP.

The Project Document was signed in September 2009 and the first staff member (the Project Manager) took position in December 2009. The Project was scheduled to finish within 4 years of project Document signature (i.e. September 2013) but was extended until December 2013 during

the inception phase (approved by the PSC at the 1st PSC meeting in April 2010) and further extended in 2013 for 6 months until 30th June 2014 and then again until 31st July 2014 due to delays in project delivery which are discussed further in the text below.

2.2 The Project – National and Regional Structure

The project was designed in close collaboration with the Orange-Senqu River Commission (ORASECOM) and aimed to form a part of the Orange-Senqu Water Resource Environmental Programme. It was developed in coordination with the other major ORASECOM donors, *inter alia* French GEF, BMZ/GtZ, European Union and InWent, to ensure maximum synergy and minimum overlap between supporting projects.

The Project Document identified that the Project would be administered from a small Project Coordination Unit (PCU), located in Pretoria, South Africa within the offices of ORASECOM Secretariat. The PCU would comprise of an internationally-recruited Project Coordinator (PC) with a background in IWRM, a basin-wide recruited Scientific Officer who will act as deputy PC and a part-time Public Involvement Coordinator to oversee public involvement activities of this project. The Project Document noted that a number of support staff were intentionally limited in order to keep administration costs to a minimum.

The Project would be guided by a Steering Committee comprising representatives, National Focal Points, of the participating states drawn from ORASECOM, the GEF implementing and executing agencies, and key stakeholders. The Steering Committee would review and approve all technical documents, review budgets and financial reports and provide general implementation guidance to the PCU. The Steering Committee would meet at least once a year and all its decisions would be made on the basis of consensus. The Steering Committee would be responsible for providing strategic guidance to the project, as well as oversight of all activities and outcomes.

2.3 Problems to be addressed by Project

The Full Project sets out to assist the Orange-Senqu riparian states to:

- 1) Identify the principal threats and root causes of the transboundary water resources of the Orange-Senqu River Transboundary Basin and,
- 2) Develop and implement a sustainable programme of policy, legal and institutional reforms and investments to address these threats.

Competing water uses in the context of dwindling and uncertain future supplies are seen as the critical issue in the basin and will be a principal focus of project attention from the very outset.

2.4 Intended Results

The Project aimed to support the institutional strengthening of ORASECOM through development of an informational management system, establishment of a wider Orange–Senqu Water Resources and Environmental Programme (OSWREP), developing guidelines for i) water allocation, ii) climate change scenarios to be applied in water resource planning, and iii) transboundary EIAs. During the development of the preliminary TDA, five priority transboundary problems were identified as affecting the Orange-Senqu River Basin: 1) Stress on surface and groundwater resources, 2) Altered water flow regime, 3) Deteriorating water quality (surface and groundwater), 4) Land degradation and 5) Alien invasives. This Project, in finalising the TDA, would aim to undertake a number of gap-filling activities related to these transboundary issues including: a review of the impacts of artisanal mining on the middle and lower Orange; an assessment of

Persistent Organic Pollutant levels in the Orange-Senqu basin; and a detailed yield assessment and demand forecast for the Orange-Senqu basin for the next 25 years based on an agreed methodology. Climate change and biodiversity were identified as cross-cutting concerns and these issues were to be highlighted and integrated throughout the project. The final TDA would aim to serve as the scientific basis for development of an agreed programme of interventions for the introduction of ecosystem based approaches throughout the basin under the framework of the SAP, itself a critical component of a wider IWRM being developed by ORASECOM. The SAP would incorporate a basin vision, water resource quality objectives, targets and interventions in the short and medium term to meet targets to address transboundary priority issues.

In parallel to SAP development, the project was to implement three pilot projects which were developed based on three of the five priorities identified during the preliminary TDA development, namely, the setting of ecological flows; water demand and quality management in the irrigation sector; and land/range management. These pilots would demonstrate new techniques and methodologies in those critical SAP areas of concern.

2.5 Changes in objectives during lifetime

A review of the Inception Report, Steering Committee Minutes, Quarterly Reports and PIRs did not identify any significant changes in the Project objectives during its lifetime other than some minor re-direction and steering as is appropriate as part of the expected adaptive management approach related to such a Project. One concern that does remain is the apparent loss in any monitoring process of any reference to the need for a study of artisanal mining which was a requirement in the Project Document and was also identified as an activity in the Inception Report. It may have been decided to drop this for some reason (political sensitivity, financial constraints) but this does not appear as a formal decision or even a discussion topic in any of the minutes or reports from the project.

2.6 Intended Stakeholders

The rationale for developing a stakeholder involvement strategy for the Orange-Senqu River was that until recently low levels of attention have been paid to the need to secure broad-based public support for uses associated with the Orange-Senqu River Basin. The ORASECOM *Roadmap for Stakeholder Participation* was commissioned in order to address this oversight through development of an over-arching guiding document for ORASECOM. It was anticipated that this *Roadmap* would provide broad guidance on how to increase stakeholder input into the decision-making process of ORASECOM and would provide guidance for ORASECOM about how to appeal to the broader public as beneficiaries of the efforts undertaken by ORASECOM. Additionally, it was anticipated that the *Roadmap* would provide ORASECOM with suggested activities that could be undertaken in order to facilitate stakeholder buy-in to ORASECOM activities to be implemented primarily at the national level and utilizing formal civil society stakeholder organizations. The Project itself also developed a public participation and communication strategy.

The Project Document included the following table of stakeholder groups:

Table 2: Involvement of Stakeholder Groups

Stakeholders	Direct stakeholder activities	Basin-wide and national stakeholder forums	Social marketing campaigns
Government officials	✓	✓	
Water management officials	✓	✓	
Power utilities	✓	✓	
Tourism/recreation sector	✓	✓	✓
Mining sector	✓	✓	
Industrial sector	✓	✓	
Construction industry		✓	
Agro-industrial sector	✓	✓	✓
Local government officials	✓	✓	✓
Waste management officials		✓	
NGOs	✓	✓	✓
CBOs/village development committees	✓	✓	✓
Education sector	✓	✓	✓
Student and youth groups	✓	✓	✓
Irrigation farmers	✓	✓	✓
Stock farmers		✓	
Factory farmers (chickens, piggeries etc)		✓	
Dryland croppers		✓	
Health care providers	✓	✓	✓
Riverine community members	✓	✓	✓
Traditional healers	✓		
Scientists	✓	✓	✓
Conservation officials	✓	✓	✓
Press/media		✓	✓
Development finance institutions (DFIs)			✓
Bilateral development organizations			✓

3. Assessment – Project Design, Formulation and Relevance

3.1 Project Concept and Design

It is important to note that the overall project concept and its design were built around the delivery from an earlier Project Development Facility (the now-obsolete GEF Project Development Facility, or PDF, which has been replaced by a Project Preparation Grant or PPG). This PDF for \$700,000 was focused on developing a preliminary Transboundary Diagnostic Analysis. This 224-page detailed documentary analysis was successfully completed and adopted by ORASECOM in April 2008. It should also be noted that the Preliminary TDA arrived at the following major transboundary issues that required priority attention:

- Stress on ground and surface water resources
- Changes to hydrological regime
- Deterioration of water quality
- Land degradation
- Alien invasives

Upon its completion and adoption, it was recognised that there were some gaps where information was not available (e.g. persistent organic pollutants, effects and impacts from artisanal mining, etc.) and that these would need to be addressed in the full project.

The overall feedback on the relevance of the project concept and design was of a very dynamic and proactive project which had been well thought out and supported/delivered by UNDP GEF. But government stakeholders did note that, in future, project design should recognise the differences in capacity between different countries and respond to those differences.

Most stakeholders considered the project duration (of 4 years) to be too short. This was exacerbated by the amount of time which it took to get the two main deliverables up-and-running (i.e. the TDA finalisation and the Demonstration components).

The Project Document should have had a clearer work-plan and a very clear timeline for delivery of the TDA and the SAP. It was a universal complaint throughout the evaluation that too much time was spent on the TDA process and not enough time allowed for development of the NAPs and the SAP. The same ‘timeline’ issues were raised in relation to the demonstration projects which started very late into the project lifetime (nearly two years after inception in some cases). This constrained the delivery of best lessons and practices for replication. Such timelines and deliveries could have been much more clearly elaborated within the Project Document in an attempt to avoid such delays.

In addition, stronger guidance and steering from PSC would have resolved some of these issues. The timeline adopted by the project was developed and agreed during the inception phase. This indicated clearly the expectations for delivery of the TDA, SAP and NAPs and should have been adhered to. Apparently, the progressive problems arising from delays in meeting the agreed targets caused frequent concern and discussion between the Implementing Agency and the Project Manager leading to new targets which were also rarely met. In fact there is clear evidence that both the Implementing and Executing Agencies raised these concerns for the low delivery on a regular basis. There is no evidence in the (very limited and generally uninformative) contents of the PSC Minutes that the Steering Committee ever formally intervened or requested any resolution on these matters.

3.2 Relevance to Country Needs

All country stakeholders considered the project to be very relevant to their needs although two countries (Botswana and Namibia) did note that groundwater is more of a priority for them and they would have wished to see this as a stronger focus in the project design and the Project Document. There was region-wide agreement that the products coming from the project were of high quality and that the policy of sharing those products was well captured both through the Project Document and ultimately through project delivery. The National Action Plans (NAPs) have provided each country with a very relevant water management strategy which links directly into the regional SAP and IWRM.

3.3 Relevance to GEF Operational Strategy

Project Document states that:

‘The project is consistent with the 1st Strategic Objective of the IW Focal Area: to foster international, multi-state cooperation on priority trans-boundary water concerns through more comprehensive, ecosystem-based approaches to management. It furthermore fits with the 3rd Strategic Programme in GEF-4: Balancing overuse and conflicting uses of water resources in trans-boundary surface and groundwater basins. The project aims to assist countries to balance competing water uses between production sectors in the highly water stressed river basin under climate change uncertainties, while ensuring water security to support the people’s livelihoods and ecological flows to sustain riparian ecosystems. Following integrated basin river management (IRBM) principles, the project will in particular demonstrate the application of integrated land and water resource management practices in the upper catchment of the basin, as well as promote the harmonization of policies and activities necessary to effectively address trans-boundary water concerns in the basin.’

Within this context the Project is clearly highly relevant to this Strategic Objectives and Focal Area, both in its concept as well as in its delivery.

3.4 Stakeholder Engagement as Envisaged in Project Design

The Project Document identifies that a stakeholder analysis was undertaken during the PDF-B phase which identified direct and indirect stakeholders as well as impacted and impacting stakeholder groups and which gauged the perceptions of stakeholders in relation to the issues within the preliminary TDA and also helped to illuminate possible areas of tension and conflict. Based on this stakeholder analysis, stakeholder involvement activities were developed to address the specific concerns identified and which directly pertained to the priority transboundary problems.

These stakeholder activities are primarily captured within Component 4 of the Project Document but should also be considered to be cross-cutting. Component 4 states that Project will aim to involve stakeholders and the public in all stages of project development and implementation through active participation, targeted stakeholder education, and sectoral and long term public awareness raising of the importance of environmental and water conservation measures. These activities link with the objectives of the ORASECOM Roadmap toward Stakeholder Participation, specifically the four key focus areas outlined in the Roadmap: 1) enhanced communication and information, 2) institution creation and development, 3) capacity building, and 4) creation of institutional interfaces. In addition the project will support enhancement and promotion of

stakeholder interaction encouraging them to progressively play an enhanced role in the management of the basin, at the same time as educating them in the economic benefits of improved resource stewardship. During coordination meetings, it was agreed that all projects will work together closely and collaboratively to ensure their contributions are compatible and demonstrate synergy.

Undoubtedly, the demonstration project under Component 5 provided considerable opportunity for the engagement of certain stakeholders at the national and localised level which would help to raise awareness on the project objectives and the activities of ORASECOM as well as to develop some best lessons and practices.

The main activities envisaged were:

- The Basin Wide Stakeholder Forum and National Stakeholder Forum established
- Water conservation awareness raised
- Education & Social marketing campaign materials produced

It was noted that the active inclusion of stakeholders in project activities at all levels will be critical to the successful implementation of the project. This has been highlighted in the ORASECOM Roadmap toward Stakeholder Participation and it was intended that at every juncture possible this project will coordinate stakeholder inclusion according to the Roadmap guidelines. The expected deliverables related to stakeholder participation included:

- BWSF and National Stakeholder Forum reports and recommendations;
- Environmental education curriculum materials;
- Coffee-table book about socio-economic history and biodiversity of the Orange-Senqu River basin produced; and
- Awareness raising and social marketing campaign for water conservation

There was limited discussion, recognition or scope within the original project design to include inputs or engagement with the private sector and this was also never effectively realised in the actual project itself.

Actual project delivery related to the specific Component 4 is discussed below under the Assessment of Results, Delivery and Effectiveness by Component

3.5 Relevance of proposed M&E Plan

The M&E Plan as provided within the Project Document is appropriate and relevant, being a standard format M&E plan for a project of this nature and containing the normal requirements for both on-going monitoring and for mid-term and final evaluation. As was noted in the Mid-Term Review (MTR), the monitoring function provided in principle by the Steering Committee as captured in the M&E Plan was not realised in practice due to a lack of effective and comprehensive record-keeping.

The Quarterly Reports were well-presented and were cited by at least one UNDP Country Office (the Lead Office in South Africa) as being a 'model' for such reporting purposes. It is unfortunate, however, that A. there was no apparent feedback given on these reports to the PCU or to the IA or EA and B. The reports were not circulated to all of the other UNDP Country Offices so as to update them and keep them aware of project activities and deliveries. Also it was noted by the PCU during Evaluation that this early reporting within the Quarterly Report did not adequately

serve to inform corrective measures or adaptive management, which could have assisted in preventing some of the delays in the TDA process.

Also as noted in the MTR, the Project did not provide clear and precise estimates of progress or timelines for achieving the project's activities and this would have assisted in creating some of the delays that have been highlighted many times during the evaluation process.

The Indicative Impact Measurement Template within the M&E section of the Project Document is weak and lacking in quantifiable indicators in terms of the means of verification so it is difficult to really measure achievement from this. The Results Framework is a much better source of evaluation but this also was weak in terms of measurable and quantifiable indicators as was also picked up during the MTR.

3.6 Changes in Project and Effect on Relevance

The fact that the Project did not adhere to the work-plan and timing defined in the Inception report can be considered to be an irregular change that was not formally agreed or approved by the Steering Committee. The TDA was re-scheduled on two occasions and this was presented to the Steering Committee but without feedback and without any formal adoption in the change in delivery schedule.

Also, the 2011 PIR (GEF Project Implementation Review) noted that the Mid Term Review had to be re-scheduled from 2011 into 2012 due to the late start up of the demonstration projects.

Also, the gap analysis to strengthen the TDA was supposed to include a review/assessment of Artisanal Mining and this was reiterated in the Inception Report. Yet, this did not occur and there is no evidence of any discussion or explanation of this in either the PSC minutes or in the Quarterly reports let alone any agreement to overlook this study. This is still a gap in the TDA and was also not covered on the POPs and heavy metals survey.

Evaluation Assessment of Project Design, Formulation and Relevance

Project Design was generally appropriate and very relevant to the needs of the countries as well as being a good fit within GEF's Operational Strategy and Focal Area. More attention should have been given to a road-map or more detailed work-plan in the Project Document to ensure sequential and timely delivery of the TDA-SAP process. The short duration of the Project did not help this time constraint scenario. Stakeholder engagement should have been more effectively orchestrated through clearer activities, especially in the early stages. M&E structures need to be strengthened. Although the formal oversight role of the Project Steering Committee is elaborated in the Management Arrangements in the Project Document, this function was not fulfilled judging by the PSC Minutes.

OVERALL: SATISFACTORY

4. Assessment – Project Implementation and Efficiency

4.1 Orange-Senqu River Basin - Regional and National Institutions

The Orange-Senqu River Commission (ORASECOM) was established in 2001 to promote the equitable and sustainable development of the resources of the Orange-Senqu River. The Secretariat was opened in 2006. ORASECOM provides a forum for consultation and coordination between the riparian states to promote integrated water resources management and development within the basin. In this context the Project was designed to work alongside and to strengthen the aims and objectives of ORASECOM and to provide institutional support as required. When the UNDP GEF TDA-SAP project started, it took some 6-9 months to find synergy and operational coordination between ORASECOM, the project and the other various funding agencies (ICPs – International Coordinating Partners). A number of stakeholders felt that there could have been stronger interaction and communications between the Project and the ORASECOM and its Secretariat. On the other hand, there is no doubt that the project did strengthen ORASECOM Secretariat though, for example, the Project fully assisting the start up (and maintenance) of the ORASECOM website, (which included WIS) as well as all ICT infrastructure of the Secretariat, and successfully handed it over to the Secretariat with the commitment that the ORASECOM will take over the operations and maintenance responsibilities, including financing.

Some government stakeholders from the countries noted that there needed to be a much stronger ‘ownership’ of ORASECOM by governments and it needs to develop independence and sustainability from donor funding. If countries cannot make specific cash commitments then at least they should second government staff to work directly for the Commission and the Secretariat. However, the Commission and its Secretariat needs to become self-sustainable and not donor-dependent. It has been one of the richest Commissions so far in terms of donor funding but it now needs to move on and become self-reliant. It is important to note also that ORASECOM Secretariat was praised for having brokered a conference of donors and partners which helped to resolve issues related to responsibilities and ‘territoriality’ between these donors and partners.

Although there was some criticism noted during the evaluation in relation to the interaction between ORASECOM and the PCU (or the shortage thereof), it was also noted that, during ORASECOM Council Meetings, the activities of the various ICPs were always presented and discussed, including those of the UNDP GEF project.

4.2 Project Management at the PCU Level

The Project Document defined that the PCU would comprise of an internationally recruited Project Coordinator (PC) with a background in IWRM, a basin-wide recruited Scientific Officer who would act as Deputy PC and a part-time Public Involvement Coordinator who would oversee public involvement activities of this project. In the event, the staffing of the PCU was somewhat erratic with a considerable staff turnover as can be seen from Table 3 below.

Table 3: Staff Recruitment & Contract Closure for Project Duration

POST	START	FINISH
Scientific Officer	Sep-10	Mar-12
Administrative and Finance Associate 1	Sep-10	Nov-11
Project Manager 1	Dec-09	Jan-14
Field Officer (Botswana)	Oct-11	Jul-14
Assistant Project Officer	Mar-12	Aug-12
Administrative and Finance Associate 2	Mar-12	Jul-14
Project Associate	Jun-13	Jul-14
Project Manager 2	Mar-14	Jul-14

This reflects one of the problems within the PCU that has led to delays in delivery of project activities as well as concerns expressed by both the ORASECOM Secretariat as well as many of the stakeholders to the project who may have been affected by this turn-over in one way or another (financially, technically, etc). It is unfortunate that there does seem to have been some difficulties experienced within the working environment that relate to personality clashes. It is not within the remit of this evaluation to comment on personality issues or problems related to human resource interaction except to note that it has had a detrimental effect on the timing of the delivery of a number of important products and outputs, and that such problems need to be acted on swiftly and professionally for the greater interests of the Project and its other stakeholders.

The Project Document identified the fact that the PCU would be deliberately kept very small ‘in order to keep administrative costs to a minimum’. As has been noted with a number of other IW projects in the past, this is not a cost-effective policy. The hands-on management of the various components of the project within the overall project supervision process is critically important to the delivery and success of a project of this nature. Clearly-determined areas of component delivery and actions falling under the responsibility of an expert or trained individual is vastly preferable to a single person being the overall senior administrative and technical team for the project. The initial staffing plan was not clearly stated in the Project Document but appears to have been a Project Coordinator/Manager; Scientific Officer and a Public Involvement Coordinator which would have been too small and inappropriately focused. This was, in fact, clarified somewhat during the Inception Meeting and Report so that the Public Involvement Coordinator became a part-time Communications and Participation Specialist. An Administrative and Finance Officer was also added at Inception which was a necessary and logical addition.

During the actual project lifetime, Scientific Officer resigned after a short period in post and the Project Manager (in consultation with the IA and EA) decided instead to hire a long-term consultant to fill this role rather than re-advertise and recruit a full-time staff member. This was not an ideal situation and placed an increased work-load of a day-to-day technical nature onto the shoulders of the senior management person leaving little time for the less technical but equally important activities including the interaction at the policy and senior management levels that has been previously noted as being too limited for a project of this nature.

So, in fact the TDA process was managed and overseen directly by the Project Manager. A number of consultants were recruited to undertake revision of certain parts of the preliminary TDA, to fill in some of the gaps that had been identified, and to supervise the quality of the final publication. Some of the delays in the TDA process (See below under Results, Delivery and Effectiveness) can be attributed to this mixed arrangement whereby the different sections were delayed in their

delivery and the on-going ‘quest for perfection’ within the TDA document itself became more important than the actual function of the document as a foundation to the SAP.

Both the SAP and the NAPs development process went through a comprehensive and widespread set of consultations to ensure effective cross-sectoral engagement as well as broad ownership. The SAP document itself describes this process in detail as follows:

The SAP, in conjunction with the NAPs, was developed through an extensive consultation process in order to ensure that it reflects the priorities of the four basin states. It is well aligned with the four countries’ national development and sector plans, as well as the institutional frameworks at basin, national and local levels. In practice this meant that the political and technical guidance for the SAP and NAPs came from the countries, through a national NAP/SAP Working Group as well as a broader National Stakeholder Platform, each structure specifically set up for the purpose of NAP and SAP development.

While also being part of the National Stakeholder Platform, the national NAP/SAP Working Group is smaller in size (between five to eight members), comprised mostly of individuals holding positions in government related to water, planning and finance. Each country’s delegate to the ORASECOM Technical Task Team was appointed as the national coordinator of the NAP/SAP process for their country. With support from the consultant team, the national NAP/SAP Working Group was primarily responsible for the development of the NAP and provided the technical and political guidance for the formulation of the NAP. Collectively the four national NAP/SAP Working Groups formed the regional NAP/SAP Working Group, which guided the development of the SAP.

The National Stakeholder Platforms are comprised of stakeholders representing a wide range of relevant role-players, including both state and non-state participants. While established initially for the purposes of NAP/SAP development, the aim is that the National Stakeholder Platforms and national NAP/SAP Working Groups are maintained in the long term and become permanent national counterparts for ORASECOM.

Two workshops of the National Stakeholder Platform were held at national level in each country, in addition to regular meetings of the (smaller) national NAP/SAP Working Groups. The regional NAP/SAP Working Group met three times throughout the process for the joint development of the SAP and to ensure synergy between the four NAPs as well as between the NAPs and the SAP. In addition to the National Stakeholder Platforms and NAP/SAP Working Groups, there were other key role-players in the NAP/SAP development process. The ORASECOM Secretariat and the United Nations Office for Project Services (UNOPS) provided important political and technical guidance to the process.

Likewise, regular information exchange and coordination with other ongoing initiatives, notably the Orange–Senqu IWRM plan development process, took place in order to ensure technical coherence and harmonisation of the NAPs (and SAP) with the Orange–Senqu IWRM plan.

There was a general opinion throughout the stakeholders that the relationship between ORASECOM and UNOPS had not been as effective or as amicable as would have been expected or desired in order to ensure the smooth delivery of project activities and outcomes. It was noted both within and outside of the ORASECOM membership and staff that communications between

ORASECOM and the PCU Project Coordination Unit for the UNDP GEF project were too limited despite the fact that they shared physical office space. Briefing meetings between the Secretariat and the PCU were also very infrequent unless the Secretariat requested them. This displays inadequate management procedures by the Project as the Secretariat is the main partners and the project is there to support and strengthen the Secretariat. Not only should this relationship have been stronger but an environment of both formal and informal discussion should have been fostered by the project.

Equally, within the PCU itself it was noted that there was no arrangement for regular staff meetings and poor communications between staff. There seems to have been an attitude within the PCU management of micro-management and non-delegation with little sharing of information or discussion of plans. This is clearly not conducive to a harmonious and productive office environment and does not build trust or a 'team' mentality. Mostly this seems to have been an unfortunate product of incompatible personalities and work-methods, yet it also highlights the importance of careful staff selection procedures and criteria along with a clear understanding of office protocol related to monitoring and reporting. Equally, of course, an environment of close partnership and collaboration should be fostered whereby communications and interaction need not be on such formal basis all the time and should ideally be a natural process of engagement and interest.

In defence of the Project Manager, all of the technical and scientific personnel that he worked with spoke very highly of his technical skills and attention to detail. They valued his support and his operational methods in terms of rapid procurement and dealing quickly with budget issues. He was clearly a perfectionist and always pushing for high quality and good product. Unfortunately, this was frequently done at the expense of attention to administrative protocol and regulations which then caused both frictions (with the Executing Agency) and delays (as the inappropriate methods used were then later rectified and resolved). It must be said that there was no evidence of any sort that came to light in the evaluation that would even remotely suggest any kind of corruption, misappropriation or any 'illegal' activities of that nature. All that came to light was an urgency to get the job done which was regrettably un-moderated by the essential need to follow due process and a lack of respect for administrative procedures. This inevitably led to growing conflict and friction and to a 'track-record' of administrative mismanagement. Eventually, the Project Manager resigned early in 2014 as the project was in its extension phase and an interim Project Manager was hired to finalise the project for its final 6 months and to close the budget and work-plan. There was a concern expressed at more than one evaluation meeting that the stakeholders (particularly at the government level) had received no warning of the departure of the Project Manager and some people that were interviewed during the evaluation were still not aware that the original Project Manager had left. In fairness, it seems upon investigation that very little warning of his intended resignation and departure was provided by the Project Manager to anyone, including the EA and IA. This was further exacerbated by it occurring over the December-January holiday period as it did.

One further comment on the PCU was a tendency for all reports to be subjected to criticism on editing and formatting at a general level with no specifics and no guidelines on correction. This created massive delays due to re-writing. Some of the comments were considered to be unprofessional and many of the reports never got beyond the desk of the Project Manager. In on case at least (The POPs Report) there was a full peer review undertaken by an external scientist. There should have been a multiple peer-review process in place for all such reports but especially the TDA. This would have helped to resolve this issue and taken the responsibility and critique out of the hands of one single person with very specific opinions and expectations.

4.3 Agency Management and Involvement

The UNDP GEF project was not alone in providing support to ORASECOM and to the development of basin activities. Also active in the region and in the Orange-Senqu River Basin were GIZ (Deutsche Gesellschaft für Internationale Zusammenarbeit or German Society for International Cooperation) which was assisting ORASECOM in the preparation of an Integrated Water Resource Plan and other development-related issues through SADC, as well as funding an interim Secretariat; the European Union which was focusing on all institutional strengthening issues related to the river basin and ORASECOM, also through SADC; the French GEF (FGEF) which provided support to strengthen the capacities and experience of ORASECOM, through the implementation of concrete actions and through further support (alongside GIZ) to the Interim Secretariat until a permanent Secretariat for ORASECOM could be established. The FGEF project support aimed to strengthen transboundary and inter-sectoral networking systems so as to build capacity and confidence through transparency and the smooth sharing of information in order that transboundary river basin management is possible.

The evaluation process identified the fact that, during the earlier Project Development phase, there were a number of conflicts and territorial disagreements between the various funding agencies. The UNDP GEF project was perceived to be a late-comer to the funding support to ORASECOM and to the overall IWRM Plan development process. This helped to spark off some of these conflicts and created an unfortunate and uncomfortable atmosphere of poor cooperation during the early stages. One of the Commissioners felt that the agencies allowed too much repetition of their activities and used too many different consultants to do this. Fortunately ORASECOM has been able to act as a mediator and to negotiate appropriate roles and responsibilities for the various international Partners. Now the International Cooperating Partners meet at two levels A. twice a year with ORASECOM to brief the Commission on their individual activities and B. at the regional SADC Secretariat level where they have an ICP pre-meeting (of the Water Sector Reference Group or WSRG) to the SADC meetings organised by its Water Division under the SADC Directorate for Infrastructure and Services.

Interviews with the Resident Representatives of UNDP offices in Namibia and Botswana indicated very poor knowledge of the project and no real involvement of those country offices in either project activities or any project review process. This was also the finding of the Mid-Term Evaluation. The UNDP Country Offices stated that they had not received the quarterly reports and there was no evidence of them being involved in any of the in-country meetings or workshops. This caused some concern on their part, especially in view of the One UN policy that they try to promote. The Project Manager should have liaised more closely with at least some sort of counterpart in the UNDP offices. Yet this is not an uncommon oversight by UNDP GEF projects. Furthermore, there is something of a history of limited response from the UNDP Country Offices to requests to attend such meetings of UNDP GEF projects. The SAP/NAP development consultant team did confirm that invitations are sent to all UNDP COs for the NAP development meetings and also to SAP development/stakeholder meetings, but with little or no response (depending on the country). Clearly it would have been most advantageous to find a way to have involved the country offices and the fact that UNDP has offices in each country is often cited as part of its 'comparative advantage' as an Implementing Agency. The country offices can be very valuable when it comes to interactions at the Ministerial and/or diplomatic level to promote endorsement of the Strategic Action Programme or signature of a Project Identification Form or a Project Document. Furthermore there are many instances whereby UNDP core activities in a country can complement and even co-fund GEF activities. Many such core objectives of UNDP complement GEF projects and, in particular, the GEF Small Grants Programmes can be very valuable at

delivering on-the-ground activities with small levels of funding that can build strong community engagement. It was suggested that the Country Offices had not been fully engaged as the Project did not see what technical value they could add. However, there is probably an equal lack of engagement from the UNDP CO side as a result of staff limitations and an inability to follow such regional projects as closely as necessary so as to be able to engage effectively (in which case it is often seen as more diplomatic not to attend such meetings rather than sit in but not interact).

There were quite a number of criticisms throughout the evaluation of the finance, contracting and procurement process. It was difficult sometimes to ascertain whether this was a criticism of the Project Coordination/Management Unit or of UNOPS Copenhagen as the entire project tended to be viewed by the majority of stakeholders as being a UNOPS project rather than a UNDP GEF project. In particular, the countries complained about the delay that occurred between the Implementing Agency and the Executing Agency in approving the project extension, despite it being a fairly straightforward 'no-cost' extension request. There was certainly some evidence of protracted procurements and contracting having been caused by earlier attempts by the PCU to bypass due process and administrative requirements. However, many of the stakeholders that were involved in contracts, procurement or activities raised concerns regarding the strong element of rigidity and inflexibility resulting from the strict rules and regulations adhered to by the executing agency involving such administrative processes.

Some specific problems highlighted during the evaluation include i) delays in contracting processes (that could result in selected candidates being lost to another position and employer); ii) problems with Operational Advances for a series of consecutive workshops (UNOPS rules tend to limit OAs such that only one can be open at any one time which is not conducive or supportive to such a series of interactions; iii) unnecessarily long response times which can also aggravate relations with vendors or countries; etc. In a number of cases it became clear that the rules are not workable or appropriate to the needs and urgencies of the project, yet it seems to the staff on the ground that there is no flexibility offered by the Executing Agency and no options provided. It is noted that, in relation to the problem raised above regarding the Operational Advances for consecutive activities, this has now been resolved through a process of pooling the workshops into a single Operational Advance.

These problems almost certainly highlight a two-way issue. The Executing Agency is often accused of not having staff available to work with the projects that have field experience or understand the unique needs and requirements of on-the-ground projects and associated need for flexibility and/or options. Equally, countries and field personnel frequently overlook the fact that this is a global funding process with strict accountability to the providers of the funds (ultimately tax payers) and that this therefore has to have some set standards for financial and administrative procedures that can stand up to formal scrutiny and auditing. As this has become something of a long-standing disconnect between the executing agency and the project delivery on the ground it is probably time now that the Implementing Agency and the Executing Agency (UNOPS) sat together at a senior level to discuss ways of streamlining the administrative processes in order to expedite project delivery and avoid conflicts with governments, without jeopardising the integrity and quality management which is a strict requirement of such Executing Agencies.

4.4 Risk Management

The following Table lists the risks identified in the Project Document and reviews them against the delivery for each Outcome. Nearly all of the risks were either resolved or proved to be unfounded/unencountered. The only remaining potential risks include:

- Civil society engagement. No clear involvement in ORASECOM activities apart from active participation by some CSOs in the demonstration activities, but this can be rectified during SAP implementation
- Commitment by member states to address inefficient use of water in the basin. This is covered to a great extent by the existence of ORASECOM but will need to be resolved through implementation of the SAP and the IWRM programme.

Table 4: Review of Risks and Assumptions as Identified in the Project Document

Outcome	Risks	Update at Terminal Evaluation	Risk/Assumption Resolved?
Outcome 1: Capacity of ORASECOM strengthened to coordinate initiatives, national institutions and donors in a harmonized manner to effectively promote the implementation of IWRM principles in the basin.	Insufficient commitment of member States to participate in ORASECOM governance.	Member states have shown clear commitment to the ORASECOM governance process	Resolved
	Member States cannot delegate sufficiently senior staff to ORASECOM governance, and/or senior staff cannot allocate sufficient attention to ORASECOM issues.	Senior staff delegated at level of Commissioner. Further staff secondments directly to ORASECOM would be valuable	Resolved at Senior level
	Member States not committed to data provision and sharing and Insufficient interest of stakeholders in water information system.	Data provision and sharing agreement has been developed and adopted. Strong interest in WIS	Resolved
	Technical limitations (slow internet speed, etc) compromise access of wider stakeholders.	This has not appeared to have been a problem	No Risk encountered
	Member States cannot delegate sufficiently senior staff to ORASECOM task teams and working groups, and/or senior staff cannot allocate sufficient attention to their work at the task teams and working groups	Effective stakeholder engagement in technical issues suggest appropriate staff were allocated	Resolved
	Insufficient interest of civil society representatives/ experts participating in technical working groups.	Effective representation appears to have taken place	Resolved
	Insufficient commitment of all member States to conduct and share Tb-EIA for projects with transboundary or/and basin-wide significance.	No apparent lack of commitment was noted	No Risk Encountered
	Insufficient numbers of junior professionals attracted or retained to work with line agencies in member States	No apparent lack of junior professionals arose as an outcome through the Evaluation process	No Risk Encountered
	Insufficient capacity of senior professionals for effective on-the-job training of junior professionals.	No apparent lack of capacity within professionals arose as an outcome through the Evaluation process	No Risk Encountered
Outcome 2: Trans-boundary issues analyzed through additional studies, immediate and root causes of priority	Member States uncommitted to endorse scientific findings and participate in prioritization of identified issues.	Member states all clearly committed to endorse scientific findings and to identify priority issues	Resolved
	Research results of related studies of other ICP supported projects are not	No apparent lack of delivery or quality issue was noted	No Risk Encountered

Outcome	Risks	Update at Terminal Evaluation	Risk/Assumption Resolved?
trans-boundary issues identified, and the resulting more comprehensive TDA.	delivered in time or do not meet quality requirements.		
	Member States uncommitted to endorse scientific findings and participate in developing mitigation and adaptation measures.	Member states all showed commitment	Resolved
	Member States uncommitted to endorse scientific findings and participate in prioritisation of identified issues.	Member states have all committed and prioritized issues	Resolved
Outcome 3: Priority trans-boundary issues and basin-wide strategies to implement IWRM policies agreed through the endorsement of SAP and NAPs; Sustainable financial arrangements agreed for SAP implementation.	Member States uncommitted to endorse SAP and/or NAP.	NAPs adopted by Member States. SAP endorsed by the four Ministers responsible for the ORASECOM.	Resolved
	Insufficient interest of stakeholders to participate in development of SAP and NAPs.	Comprehensive Stakeholder engagement in development of NAPs and SAP	Resolved
	Insufficient commitment of member States to produce a joint SAP and related NAPs.	Joint SAP and related NAPs completed	Resolved
	Insufficient ICP support to SAP and NAP implementation, alignment and harmonization.	ICPs support the SAP and NAP process and have adopted SAP as the Environmental Component of the overall IWRM	Resolved
Outcome 4: Stakeholder involvement in project activities ensured; Public awareness raised on trans-boundary issues in the basin	Insufficient commitment of member States to engage with stakeholders.	Member States have engaged with stakeholders in TDA, NAP and SAP development and adoption	Resolved
	Insufficient interest of civil society to participate in basin wide and national planning.	Some civil society engagement but not comprehensive. This may not be due to lack of interest by civil society but more lack of engagement by project	Some risk remains
	Insufficient interest of civil society to participate in basin wide, national and sub-basin level planning.	Some civil society engagement but not comprehensive. This may not be due to lack of interest by civil society but more lack of engagement by project	Some risk remains
	Insufficient commitment of member States to address inefficient use of water in the basin.	Commitment exists through ORASECOM and through SAP/NAPs process but implementation is still necessary	Risk is minimal in view of progress
	Insufficient interest of civil society in water conservation issues.	No evidence of lack of interest	No Risk Encountered
Outcome 5:	Member States not sufficiently committed to review current e-flows regime.	e-flows already reviewed as a transboundary exercise	Resolved
	No suitable demonstration sites can be identified.	Suitable Demonstration Sites were identified	Resolved
	Farmers have no incentive to reduce their overall water consumption.	Incentives created and farmers embraced them	Resolved
	Farmers are not sufficiently interested to adopt new practices and	New practices adopted and new infrastructures built	Resolved

Outcome	Risks	Update at Terminal Evaluation	Risk/Assumption Resolved?
	invest in improving infrastructure.		
	Member State structures not conducive for piloting community based approaches.	Member states all fully supportive of community based approaches and structures do support	Resolved
	Local communities are not sufficiently interested to apply community led management practices.	Local communities very interested and very supportive now they see benefits	Resolved

4.5 Stakeholder Participation

The original Project Document refers to the PCU staff complement including a part-time Public Involvement Coordinator. However, there was no evidence of such a person ever being hired and no Terms of Reference was identified. Such a position could have strengthened the level of stakeholder participation.

Generally, however, the stakeholders interviewed perceived this to have been good within the demonstration projects but less satisfactory within the project as a whole (with the exception of the SAP and NAPs process). Although there was no effective stakeholder fora set up at the regional level, apparently this was partly due to sensitivities at the basin-wide level in recognition of the preference to have national stakeholder buy-in at the level of the national basin authorities. The Project followed the recommendation from the ORASECOM and PSC that the project first support the establishment of the national stakeholder fora.

The community representation into the governance process occurs through the Community District/City Councils. District Councils the report to their regional/provincial level which then to reports to national Government. It was apparent that, in some of the countries, this process is rather weak, especially at the District level.

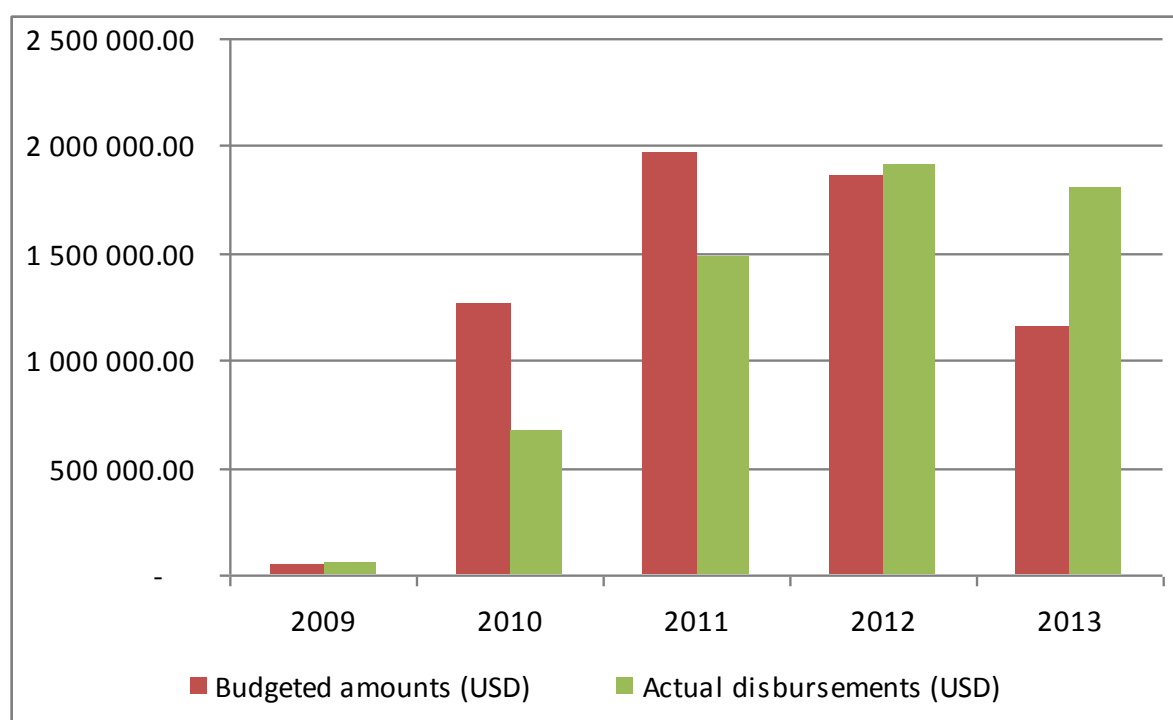
It was commented that there had been far too many stakeholder engagement exercises and participation plans, etc. One Commissioner requested that an assessment now be done of actual effectiveness of stakeholder participation and engagement exercises and to move forward from there with a clearer road-map of stakeholder involvement in the future.

The primary objective and activities related to stakeholder participation and engagement were under Component 4 and the delivery from this component is discussed below in the appropriate section of Results, Delivery and Effectiveness.

4.6 Financial Planning and Management

Table 5 below shows the proposed budgeted amounts as part of the Inception Report against the Actual Disbursements (without the UNOPS overhead)

Table 5: Original Budget Allocation per year against Actual Disbursement



As of the end of 2013, planned expenditure should have been \$6,292,657 (being \$5,880,988 in disbursements and \$411,669 in UNOPS Facilities and Administration).

In fact, actual expenditure was \$5,921,473 (being \$5,557,873 in disbursements and \$363,599 in UNOPS Facilities and Administration). This left a small amount of funds \$378,527 to cover an extension

The above bar chart reflects the delays in delivery on certain aspects of the project such as the TDA and the SAP which activities started somewhat later than originally intended. However the following table also shows actual changes in budget expenditure per project component

Table 6: Differences in Budgeted Amounts per Component versus Actual disbursements

Project Component	Budgeted amounts	Actual disbursements	Difference	Percent Difference
ORASECOM Strengthening	\$684 000	\$796 885	\$112 885	17
TDA	\$673 000	\$902 172	\$229 172	34
SAP	\$686 000	\$713 865	\$27 865	4
Stakeholder Participation	\$696 500	\$365 722	-\$330 778	-47
Demonstration Projects	\$2 523 000	\$2 146 306	-\$376 694	-15
Project Management	\$618 488	\$632 924	\$14 436	2
TOTAL	\$5 880 988	\$5 557 873	-\$323 115	-5

From this table it would seem clear that some significant and considerable extra budget expenditure went into supporting particularly the TDA process (which was protracted and unnecessarily dragged out at the expense of other activities), while stakeholder participation and the demonstration activities received less expenditure than was originally scheduled. ORASECOM strengthening seems to also have risen above the original expenditure expectations but not as significantly. The 34% increase in TDA expenditure may, in part, reflect the considerable extra time and effort that went into this activity but it may, in all fairness, also reflect the fact that TDA spent more resources than initially envisioned because it incorporated two major activities that were not initially budgeted: 1) development of the infrastructure catalogue (which turned out to be a most popular publication for ORASECOM, showing detail on the current water resources management schemes of the basin, and 2) the publication 'From Source-to-Sea' which has been very well received regionally and globally and has helped the two inter-governmental commissions (BCC and ORASECOM) to connect and to deal with the matters related to their transitional.

The project will end with the budget in a good condition in terms of final expenditure but there have clearly been too many contract extensions that have not followed the Executing Agency rules and guidance as well as too many *Post Facto* contracts having to be issued where services have already been provided in the absence of formal agreements. Also, there were significant changes made to the budget in the early stages but there are no signs of these having been officially approved by the Project Steering Committee (no reference in minutes). Some major changes were made to budget allocations early in the project which were captured in the Inception Report, Budgets and work-plans were presented to each Project Steering Committee. One criticism is that the Minutes of the PSCs do not record formal approval and adoption of these budgets and work-plans. Although this may be considered 'implicit' on the basis that they were discussed it should be a formal process of request from the Chair Person for endorsement of these items by the countries

In many contracts there appeared to be no 'benchmarks' for payment and payments were made on a time basis (e.g. every 3 months) without a clear delivery requirement.

The budget for the demonstrations should have been clearer and linked into a work-plan and delivery road map and then discussed with the countries. Senior government personnel noted that this shortfall in management strategy had created friction and problems whereby a Water Affairs Department had to subsidise the demonstration activities in the absence of funding and support from the project. The Department had to pay its officers overtime which led to complaints from the Director and from the financial section.

4.7 Cost Effectiveness in Delivery of Results

In terms of value for overall available grant (\$7 million) this project has delivered well. The previous section highlights some of the changes in budget allocation and where this has weakened delivery in certain areas. Within the context of having raised awareness and strengthened the long-term position of ORASECOM, as well as delivering high quality information products, this project (within the aforementioned budget constraints) can be considered to have been cost-effective.

4.8 Co-Financing Delivery

During the Evaluation Process the Evaluator was only provided with up-to-date government co-financing assessments for one country (Namibia). On the basis of just one country out of four it was not possible to fully quantify assess the co-financing delivery from this project.

Analysis of the Project Implementation Reviews does not really provide any greater insight to government co-financing delivery as the following excerpts demonstrate:

From PIR 2011:

Actual Co-financing Realized: No Figures Provided

Additional Leveraged Resources: \$10,000,000

Comments on Co-Financing:

New initiatives/projects at ORASECOM, coming on-stream during the reporting period are:

Support to updating of Orange-Senqu River Awareness Kit;

Support to establishing the ORASECOM Management Information System (OSIS) and developing a results-based monitoring system;

Cooperation with the Commission for the Protection of the Danube River (ICPDR)

Formulation of ORASECOM School Box Project

Water conservation and water demand management pilot project with Emfuleni municipality;

Additional works, GIZ Project Phase 2;

Support to ORASECOM IWRM Plan, GIZ Project Phase 3

Contributions come from the governments of Australia, Germany and the UK through GIZ as well as from SASAOL, a large private sector petrochemical enterprise.

From PIR 2012:

Actual Co-financing Realized: \$22,250,000

Additional Leveraged Resources: No Figures provided

Comments on Additional Leveraged Resources:

The Project is in no position to assess co-finance of riparian Governments, but estimates that at least 75% has been delivered (some USD 12,500,000).

ICP co-financed in the region of USD 9,750,000 has been delivered (BMZ/DFID/Ausaid through GIZ and InWent, F-GEF, EC)

The Project acknowledges the following in-kind support:

ORASECOM member States participate in ORASECOM governance meetings, meetings of the Task Teams and Working Groups.

Strong interest and participation of line agency personnel in the field work of the Project, as well as in other ICP funded projects under ORASECOM.

District level agencies have contributed construction equipment and materials to the Project's rangeland demo project in Botswana.

PIR 2013:

No Figures Available

Nevertheless, in the absence of figures being provided, and although it has proven difficult for the Evaluator to quantitatively capture or confirm co-financing from the governments, a fairly reasonable and accurate quantitative attempt can be made to review the co-financing situation. Certainly, the four Basin States have made their direct contributions to the Secretariat for its human resource capacity, operations and maintenance from 2006 (when the ORASECOM project PIF was approved) until 2014 and these count toward substantial government co-financing. Furthermore, the governments also pay their travel costs for attendance at the ORASECOM-related meetings (Council meetings, various Task team and Technical Team meetings, etc), as well as the extra costs transacted if they are the host country.

The Namibian figures were very detailed and can be summarised as follows;

Pledge Co-financing: \$2,110,000

Actual Co-financing: \$4,465,558

Additional co-financing leveraged during the project lifetime = \$2,355,558.

This represents an increase over the pledged co-financing from Namibia of 111%, more than double the originally confirmed co-financing at the beginning of the project. The specifics of the co-financing delivered from Namibia provide figures on:

- Council Member attendance at ORASECOM SAP meetings
- Technical Task Team Meeting attendance
- Various other meetings
- Levels of effort on the part of Government Staff (administrative, political and technical) in support of the Project and the ORASECOM
- Country contributions to the ORASECOM

It is probably safe to assume that the other three countries would have delivered a similar level of in-kind contributions to the Project and would thus have equalled or even exceeded their pledged co-financing commitments.

Also, it is important not to lose sight of the national governmental co-financing associated with the demonstration projects and their implementation (from local governments, traditional authorities, communities, etc.). In addition to the contribution to the demonstration activities themselves, a number of policy reforms have taken place because of the project (e.g. Lesotho mainstreaming transboundary water resource management topics into their education curriculum).

It is therefore the opinion of the Evaluator that if figures were available from the other three countries they would most likely reflect a similar situation to the Namibian co-financing and confirm a delivery above the pledged expectation.

The Mid Term Review provided the following overall project estimations:

Government (US\$ Millions)		Other (US\$ Millions)		Total (US\$ Millions)	
Pledged	Actual	Pledged	Actual	Pledged	Actual
16.6	8.9	15.4	9.1	32.0	18.0

Judging by the figures provided above it would seem that, at Mid-Term, the project was ahead of its pledged co-financing expectations by about 20% which would tend to support the Evaluator's qualitative assessment above.

Undoubtedly there has been clear delivery recorded from other sources besides the government funding. In reviewing the pledged co-financing from external partners, all of this co-financing supporting the ORASECOM has been realized and completed and in some cases exceeded. For example, the Evaluator was reliably informed that the GIZ-implemented multi-partner financed SADC transboundary water programme has spent considerably more funds than was initially anticipated on the ORASECOM and on other various project-related issues in the basin.

4.9 Effectiveness of Monitoring and Evaluation Design, Work-Planning and Budgeting

In terms of regular reporting methods and monitoring processes, the Quarterly Reports for this Project have been very informative and very well prepared. On the other hand, the minutes from the Project Steering Committee meetings have not been anywhere near as useful and are very poor in detail and format, although they did improve somewhat after this criticism was also raised by the MTR. Generally it would seem that the oversight from the Project Steering Committee to the project was also not as effective as it should have been and this was also picked up by the Mid-Term Review. The MTE noted that there were big budget changes made during the project which A. would inevitably have had an effect on Project Delivery yet B. were not effectively discussed in detail by the PSC members or recorded in the PSC minutes. The MTR also noted that there was never any feedback to the Project Manager on the Quarterly Reports which tended to make them just a 'process' rather than a monitoring mechanism or a valuable tool for adaptive management. There seems to have been a general tendency for all information and updates given by the PCU and the Project Manager at the PSC to be accepted without question. This is not sufficient oversight by a Steering Committee. Periodic work-plans and budgets (which inevitably have changes in relation to previous work-plans and budgets or from the Inception Report) need to be discussed and formally approved.

According to the Indicative Monitoring and Evaluation Work Plan (Table I.IV.I In the Project Document) the UNDP Country Offices were supposed to visit the demonstration field sites once a year and a budget allocation was made to allow for this. However, this was not the case according to the UNDP Country Office lead personnel interviewed during the course of this Evaluation.

There is no evidence at any stage beyond the Inception Report that the Project Results Framework was reviewed or was being used for monitoring of project delivery. All such projects are, by nature, dynamic in their activities and an adaptive management approach is necessary in order to adjust to changing circumstances. This often needs to be reflected in a review of the Results Framework and Project Indicators by the Project Steering Committee.

The Project Implementation Review (PIR) is GEF's formal annual project assessment process. In 2011 this rated the project as being Marginally Satisfactory (MS) with specific attention being drawn to the urgent need to upscale project activities to ensure that objectives were met before the MTR. It also stated that the overall rating had a good potential for improvement by the next PIR as the project implementation would be accelerated over the next reporting period. This rating of MS continued into 2012. The Mid-Term Review released at the end of 2012 rated the Project as Marginally Satisfactory (MS) and noted the delays in the TDA-NAP-SAP process as being instrumental in arriving at this rating level. The 2013 PIR raised the rating of the Project to Satisfactory (S) on the basis primarily of products and the fact that most of the outcomes were being realized although it noted the continuing delays in the TDA-NAP-SAP process and the fact that the PCU and Project Manager would now have to put large efforts into delivering these primary objectives.

4.10 Use of Results Framework for Monitoring and Adaptive Management

Table 7 below presents the Results Framework along with the observations of the Evaluator related to the Target and Means of Verifications and a final assessment for each Target. It should be noted as mentioned in the earlier text and by the Mid-Term Evaluator that this Results Framework has not used appropriate and quantifiable indicators so the assessments may well miss important aspects for measuring project delivery because the appropriate measurable indicators were not included. An attempt has been made to resolve this through further discussion and assessment in

Section 5 later in this Evaluation that addresses the Results, Delivery and Effectiveness of each Component.

Table 7: A Review of the Results Framework and Analysis of Delivery of Targets

Target <i>Unless otherwise stated these are targets for Project completion</i>	Means of Verification	Evaluation Comments	Assessment
OUTCOME 1: Institutional Strengthening of ORASECOM			
Information Management System Created with Functional GIS Based Web page utilized by a wide range of stakeholders from throughout the basin and internationally.	IMS design and QA/QS procedures agreed. Management arrangements in place Meta-database prepared Common database agreed Submission of data base on agreed procedures Web-site operational and number of website hits recorded	IMS (Water Information System) developed but with QA and QS in place/ Management arrangements set up and under long-term negotiation; Meta-database in place; Common database agreed Database in place and updated/ maintained externally; Website operational and hits recorded	Highly Satisfactory
Technical working groups created functioning and meeting regularly to address key aspects of the ecosystem based approach and IWRM implementation in the Orange-Senqu river basin.	Technical group reports. • Written guidance from the TWG to component projects regarding implementation • Reports to Steering Committee meeting	Reports from technical groups; Written guidance from Technical Working Groups Reports given to Steering Committee.	Highly Satisfactory
Decision framework created for determining water resource allocation base on economic evaluation criteria and for it to be applied at the basin-wide and national levels.	Technical report on water use priority based on economic evaluations Criteria agreed for evaluating water abstraction and allocation Decision frameworks agreed nationally and base-wide	Technical reports on water use include remarks on economic value; Criteria and Decisions Frameworks under development as part of IWRM planning (to be finalised hopefully by Aug 2014)	Satisfactory
Transboundary EIA guidelines and procedures to be agreed by the ORASECOM members including a listing of type and size of project applicable.	Guidance document approved by ORASECOM Rules and procedures document from transboundary EA prepared and agreed Reference to transboundary EA guidelines, rules and procedures in national EIA guidelines Trans-boundary EAs posted on ORASECOM web-site.	ORASECOM council approved the Transboundary EIA guidelines; Rules and procedures under development Transboundary EA guidelines not adopted nationally, i.e. not incorporated in national guidelines as yet No transboundary EAs posted on ORASECOM's website during the project	Moderately Satisfactory
Clear strategies for maintaining and strengthening water resource knowledge in government agencies in the short to medium terms. Improved capacity of existing water resource practitioners in all basin countries in Integrated Water Resource Management and increased recruitment of new young engineers/planners.	Needs assessment undertaken; ORASECOM and country capacity development strategies and training programmes developed; Number of water resource ; practitioners trained; Feed-back results from training ;	No needs assessment undertaken by Project as such but other ICPS and ORASECOM have one: Commission or country capacity development strategies and training programmes in place through IWRM and ICPS No record of number of water resource practitioners trained and no feedback results for training.	Moderately Satisfactory
Outcome 2: Completion of Transboundary Diagnostic Analysis			

Target <i>Unless otherwise stated these are targets for Project completion</i>	Means of Verification	Evaluation Comments	Assessment
<p>Assessment on artisanal mining impacts in the lower Orange and mitigation measures outlined</p> <p>POPs levels screened in the Orange-Senqu basin and measures to be taken to lower levels determined and mitigation measures outlined</p> <p>Climate change scenarios based medium and long term forecasts agreed and the impact on water resource yields and demands assessed with outline adaptive management strategies proposed</p>	<p>Assessment report of the impact of artisanal mining in the lower and middle Orange, including proposals for control and mitigation.</p> <p>Maps of POPs distribution prepared and sources identified.</p> <p>Climate change scenarios agreed and yield and demand forecast figures revised</p> <p>TWG Reports (See 1.2)</p>	<p>No report on the impacts of artisanal mining in the lower and middle Orange;</p> <p>Sources of POPs, PAHs, and heavy metals (the latter at no additional cost) identified and maps produced – excellent quality report;</p> <p>No climate change scenarios agreed and no revised demand forecast</p> <p>TWG reports available</p>	Moderately Satisfactory
An understanding and agreement of the priority transboundary problems of the Orange-Senqu and identification of the necessary short, medium and long term interventions to address them	<p>Revised TDA document containing the results from gap filling studies and revised Causal Chain Analyses;</p> <p>List of potential interventions in the short, medium and long term to address each of the transboundary issues;</p> <p>Pre-feasibility studies of priority interventions</p>	<p>Revised TDA with revised causal chain analysis and results from most gap filling studies;</p> <p>Potential short, medium and long-term interventions appear in the SAP and NAPs to address transboundary issues;</p> <p>Pre-feasibility studies not appropriate at this time</p>	Satisfactory
Updated TDA approved and disseminated widely to stakeholders, civil society, governments, other basin wide projects, and the International Waters community for use in decision making, programming and long term development	<p>TDA finalized and endorsed by ORASECOM</p> <p>TDA in easy access format prepared and disseminated</p> <p>Newspaper articles and TV programmes featuring the OS TDA findings</p>	<p>Final TDA endorsed by ORASECOM;</p> <p>TDA published as a coffee table edition, “Abundance and Scarcity” and a “Children’s TDA” to be published;</p> <p>Good quality offshoots from TDA process</p>	Highly Satisfactory
Outcome 3: Preparation of the Strategic Action Programme and National Action Plans			
To establish in the basin countries institutional frameworks and procedures capable of developing and implementing NAPs based on IWRM principles.	<p>Country needs assessment for NAP implementation in each country;</p> <p>Establishment of inter-sectoral committees and meeting reports;</p> <p>Establishment of NAP formulation team</p>	<p>No country needs assessments for NAPs carried out;</p> <p>SAP and NAP national working groups established with inter-sectoral participation. Inter-sectoral committees established;</p> <p>NAPs formulation teams were in place in each country</p>	Satisfactory
A SAP and underpinning NAPs that will provide a road-map for water resource development in the Orange-Senqu river basin based on IWRM principles. An overarching water	<p>SAP endorsed by the national governments</p> <p>Final NAPs approved by appropriate national planning authorities</p> <p>GEF M&E Framework included in the final SAP</p>	<p>SAP endorsed at ministerial level;</p> <p>NAPs approved by the ORASECOM council and countries;</p> <p>Not necessarily appropriate to have a GEF-style M&E framework in the SAP. GEF M&E would fall within any SAP Implementation document. The SAP should have its own agreed M&E</p>	Highly Satisfactory

Target <i>Unless otherwise stated these are targets for Project completion</i>	Means of Verification	Evaluation Comments	Assessment
resource develop vision with component WR objectives, targets and short, medium and long term interventions and a M&E framework		plan	
Based on SAP and NAP endorsements a donors' meeting will serve as the basis to mobilize commitments to SAP implementation and assist countries to form	Donor conference minutes, project monitoring reports and files Memoranda or agreements, project monitoring reports and files	No donor conference held: No MoUs arising ORASECOM has organised ICP meetings to agree on funding and support	Moderately Satisfactory

Outcome 4: Basin wide Stakeholder Involvement Activities

BWSF established and functioning in line with ORASECOM Roadmap and with stakeholder input into the decision process. River basin councils functioning in one or more trans-boundary sub-basins including an ephemeral river basin as models for stakeholder involvement at the sub-regional level.	Basin –wide and national stakeholder forum roster Basin wide and national council meeting minutes Community support indicated and training materials	National Stakeholder Fora have been realised ORASECOM advised against Basin-wide Forum at this early stage (Adaptive Management) A combined stakeholder contact list in place. Minutes of regional council meetings in place. Evidence of community support at level of the demonstration projects.	Satisfactory
All stakeholders have increased awareness of water conservation measures and the political commitment to address overuse and inefficient use of water in the basin.	Basin-wide campaign strategy to engage stakeholders in all sectors Press releases, TV slots, posters, advertisement campaigns evident at national and regional levels. Monitoring and evaluation of stakeholders perceptions at beginning, middle and end of the campaign Records of public meetings	Public participation and Communications Strategy in place. Approach for NAP-SAP development followed some suggestions in this strategy. Posters and literature developed to engage stakeholders at many levels. A series of public meetings as well as media campaign were held in all 4 countries as part of the Joint Basin Survey.	Moderately Satisfactory
To increase awareness and understanding of the vital importance of the river environment and its ecology on the livelihoods and lives of all stakeholders through an educational campaign targeting younger generation at all levels of society. Emphasis to be placed on climate change and its implications.	Campaign strategy and linkages with educational institutions and NGO throughout the basin Primary and secondary education curriculum materials produced for schools throughout the basin. “river ecology centres” established and guided tours for schools developed. scholarships for students specializing in water issues in subsequent phases of the project Development of high quality basin profile. Documentary film on Orange River for local, basin wide and international broadcast. Number of newspaper/radio/TV articles about the Orange. Interest of local MPs and mayors	Some linkages successfully developed with educational institutions River Learning Box and miniSASS implemented as similar and valuable interventions. Some curriculum materials produced; One Student sponsored e.g. for the analysis and interpretation of POPs leading to development of a regional POPs analytical capacity Basin profile developed and appears in the TDA, SAP and publications; Documentary film produced in cooperation with partners (ICPs); No information on interest of local MPs and Mayors	Satisfactory

Outcome 5: Demonstration Projects on Ecological Flows, Irrigation Sector Reforms and

Target <i>Unless otherwise stated these are targets for Project completion</i>	Means of Verification	Evaluation Comments	Assessment
Community-led Rangeland Management			
Agreement on the methodology and criteria for setting ecological flows throughout the basin, including seasonal rivers and establishing bounds for water resource availability. Setting of new ecological flow to provide additional protection to the Orange mouth and its associated Ramsar site.	Project Plan and inception report Criteria and site selection report Baseline assessment of the Lower Orange and a site on a seasonal river Socioeconomic evaluation of the impact of low ecological flows Community committee meeting minutes Long monitoring plans Evaluation and lessons learned report Basin wide agreement on setting of ecological flows	Scoping and Inception reports in place for each. Baseline assessment completed for the Lower Orange; Methodology and criteria for E-Flow established New E-Flow proposed Qualitative socio-economic analysis as part of the e-flows study UNDP-GEF BCLME SAP IMP Project supported Namibia and South Africa to develop management plans for the estuary. These contain long-term monitoring. Lessons learned captured in final reports and TE. E-flow agreements part of IWRM process and discussed on 21-22 May 2014.	Highly Satisfactory
Demonstrate how water can be conserved and productivity increased at two transboundary irrigation sites, through metering, scheduling, tariff structures and crop enhancement, and to demonstrate best water quality management practice. Using the lessons learnt develop a replicability strategy for the basin.	Project Plan and inception report Criteria and site selection report Water management improvement recommendations and action plan Water quality assessment reports and recommendations for improved management. Infrastructure investment Training materials Monitoring and evaluation reports	Scoping report and plan in place; Scoping exercised assessed the area for suitability based on irrigation efficiency; • Draft Water Management Plan (WMP) in place and to be finalised by mid-June 2014; Reports submitted to the Joint Irrigation Authority (JIA). Final report and WMP contains recommendations and actions to improve irrigation; Installation of water measuring and channelling equipment; Training materials developed although not part of the ToR; Monitoring and evaluation results shared with the Joint Irrigation Authority.	Highly Satisfactory
The formation of community based governance structures to improve land/range management with clear linkages to water resource management which can be used as models for replication in the OS basin and further afield.	Project Plan and inception report Criteria and site selection report Review of land degradation in the Orange-Senqu basin Review of best practice and linkage with water resource management issues. Formation of community land/range management committees Development and implementation of land/range management plans Monitoring reports	Scoping report and plan in place; Scoping report with site selection criteria; TDA and demo site scoping reports cover this extensively; Scoping exercises reviewed rangeland management practices in Botswana and Lesotho. Best practices addressed in the final reports; Committees established based on current roles and structures in communities and local government; Implementation plans contained in the scoping reports; Demo reports available along with final report	Highly Satisfactory
Outcome 6: Effective Project Coordination			
A fully operational and equipped PCU established to coordinate with the offices of ORASECOM and the other donors within three months of project	Local administration and technical staff appointed Filing and accounting systems set up and bank account opened. Web-site updated regularly Number of web-sites hits	Staff in place from time-to-time but high turn-over Poor coordination reported with ORASECOM and with other donors initially ORASECOM had to broker better relations with ICPs	Moderately Unsatisfactory

Target <i>Unless otherwise stated these are targets for Project completion</i>	Means of Verification	Evaluation Comments	Assessment
commencement.		Filing system in place – opening of a local bank account was not approved by UNOPS due to potentially high transaction costs; Website updated and maintained ongoing;	
Group of bilateral and multi-lateral donors supporting implementation of the SAP and IWRM plan	PCG meeting minutes Support of SAP components by PCG members	Minutes in place for international cooperation partners (ICP) meetings; PCG members participated and contributed to SAP development. See comment above about the need for ORASECOM intervention	Satisfactory
Involvement of the participating countries in the management and technical direction of the project meetings regularly	Steering Committee reports UNDP Progress reports measured against inception report	Reports in place; Not clearly done.	Moderately Satisfactory

Evaluation Assessment of Project Implementation and Efficiency

Technical and scientific efficiency and delivery were of the highest quality. This was less so in terms of the administrative and managerial process. Staffing levels were confusing and erratic and interfered with efficient implementation and efficiency and undoubtedly led to delays in delivery. Interactions and the concept of ‘team-work’ within the PCU itself were poor. Furthermore, inefficient interaction between the PCU and the Executing Agency (UNOPS) led to more delays in the project as well as frictions with country stakeholders. Interaction between the Project and ORASECOM itself could have been stronger and more frequent. Risk management was good. Stakeholder participation on a basin-wide basis was not as effective as would be desirable but the project interacted well at the community level and produced some good materials for stakeholder engagement. Budgeting seems to have altered significantly in terms of its distribution across components with limited deliberation or formal record of adoption at the level of the Steering Committee. In terms of ‘value-for-money’ the project deliverables are more than satisfactory for the level of funding. Monitoring and evaluation has been somewhat weak, especially at the level of the ‘results framework’.

OVERALL: MARGINALLY SATISFACTORY

5. Assessment - Results, Delivery and Effectiveness (by Component)

5.1 Institutional Strengthening of ORASECOM

One of the targets identified under the Outcome for Institutional Strengthening of ORASECOM includes the development of an Information Management System. In addition, the project fully supported the establishment of the ORASECOM website, upon the establishment of the ORASECOM's Permanent Secretariat office in Centurion, South Africa, in 2010. The ORASECOM website itself has a link to a Water Information System (WIS) site. This is an excellent entry point for loading or finding information on the Orange-Senqu River. All technical data and documents are stored either on the main ORASECOM website or through the WIS site. The content is carefully moderated but not all partners are sharing information as openly as would be hoped. The role and responsibilities of ORASECOM relating to data and information management are laid out in the Revised Protocol on Shared Watercourses in the Southern African Development Community (SADC Protocol, 2000) and the ORASECOM Agreement. The SADC Protocol states that "Parties shall exchange available information and data regarding the hydrological, hydro geological, water quality, meteorological and environmental condition of shared watercourses".

A number of other very valuable on-line platforms were developed with or through stakeholders. One of these is MiniSASS (www.minisass.org) which allows untrained individuals or schools to make an assessment of river health through a relatively simple process of sampling small 'indicator' organisms from the water. The balance of organisms against the location can give a good assessment of river health and the presence of pollutants.

ORASECOM should now ideally consider hiring a Web Administrator to manage their website and to constantly update publications and research material (dependent on their budget constraints). They may also need to consider improving and upgrading their hardware and should seek advice on this. According to web and IT experts, the Project purchased a server which is now proving very expensive for the Commission to maintain. The current website's email and file servers are run on the LINUX operating system (not Microsoft) and the support and maintenance costs and expert time is therefore greater (expertise is less common). If no funding is available for this role then it may be possible for one of the countries to second an appropriate person to work with ORASECOM on this issue.

It was noted that it can sometimes be difficult to foster good inter-ministerial engagement within countries as there can be problems in coordination and in formally bringing them together. One Ministry needs to take the lead in such a process and which one should that be? This creates sensitivities. But this also means that there are limited opportunities for the outputs of some of the projects' working groups to filter up to the policy level. Consequently there is an opportunity here for ORASECOM to drive this process of feeding information into management and policy.

5.2 Completion of the Transboundary Diagnostic Analysis

The Project Document identified (P.106-107) that the TDA process would be completed by the end of the second year of the project i.e. the end of 2011. Furthermore, the Work-Plan adopted at the Inception Meeting and included in the subsequent Inception Report also identified finalisation of the TDA as being in 2011 and its dissemination in early 2012. The actual delivery of the final document was in fact in May-June 2014, some two to two-and-a-half years behind schedule. This was the subject of considerable concern during the evaluation process and led to delays in the delivery of the SAP. This then caused further delays in securing appropriate political support for

the SAP document which is necessary for any consideration of a further SAP Implementation funding phase by GEF

A recent GEF IW:LEARN African International Waters Joint Project Workshop (Grahamstown South Africa, May 2014) concluded that, even within the standard IW 5-year project cycle, most IW project focus too much time (and often funding) on the TDA process and leave too little time and resources for the development, negotiation and endorsement of the SAP. This creates a cascade of problems whereby:

- i) There is then insufficient time to build political ownership of the SAP, leading to,
- ii) Difficulties in getting formal endorsement of the SAP before project closure, leading to,
- iii) Large delays before GEF support to the SAP implementation process can be confirmed and launched (during which time capacity, expertise and even ownership of the project and the SAP can be lost)

This Project provides a classic example of this problem. Future IW projects should avoid this by ensuring a clear deadline for end of TDA process and beginning of SAP process with the understanding that the SAP development process can run in parallel with other Project activities as soon as the Causal Chain Analysis has been completed (by mid-project latest)

Several stakeholders noted that the TDA document was only really shared for discussion and input (even with the Technical Task team members) at the stage of the final draft in late 2013 into early 2014. Furthermore, some stakeholder felt that recommendation or corrections from the countries were not always included in the TDA. Yet, the team working on the TDA document itself felt this was inaccurate and stated that the TDA document had been shared with appropriate stakeholders for feedback as a draft back in June 2013. Furthermore, they noted that all technical comments were discussed with the Technical Task Teams and included as appropriate. Certain countries noted that they had to push hard to get the groundwater issues included within the TDA, yet these are key issues, particularly for Botswana and Namibia.

Originally, four sections or chapters of the TDA were contracted out to four different institutions/consultancies. However, the four different products did not hold together well or complement each other and were of differing qualities. It was decided to combine the four chapters then with the preliminary TDA and add some new gap-filling information on important areas such as POPs, hydrology and artisanal mining. The project management did not feel that the preliminary TDA was of sufficient quality to stand-alone with just addition of 'gaps' information. Nevertheless, it was felt that the priority issues identified in the preliminary TDA were the appropriate ones. The second TDA process also re-visited the causal chain analysis and was seen to be very valuable as this new CCA identified potential points and topics of intervention thus providing a good foundation for the NAPs and the SAP. The technical advisors on the CCA then evolved into technical advisors for the NAPs and SAP. The NAP/SAP process had to be started before the final TDA was completed (on the strong recommendation of the Mid-Term Review) as the project was running out of time for delivering what is in effect the primary objective of the project

There was a consistent perception that the TDA was a consultant-driven desk-top process without sufficient stakeholder input. Although this does not detract from the obvious high quality and comprehensive nature of the report it may well damage the overall concept of 'ownership' somewhat. Stakeholders also noted the discrepancy between this delivery and the proposed dates in the Project Document. There was concern and query as to why the consultants who were hired to undertake the gaps analysis and finalise the TDA did not come on-board in the project until the end of 2011 and into 2012, some 12 -18 months after the project had started (despite the fact that their role and the requirements for strengthening the TDA were clearly established in the Project

Document itself). One comment made to the Evaluator was that ‘people will remember the quality of the product and not that it was late!’. Unfortunately, this may be true to some extent in relation to scientific interest in the TDA but it does not resolve the fact that the delays in the TDA created A. additional expenditure (contract renewals etc.) and B. delayed the entire SAP development and adoption process which is the ultimate objective of this project. It must be remembered that the TDA is not a scientific review and data capture process for its own sake, but is there to underpin and advise the SAP. Nevertheless, now that the TDA is finally completed, it should be used and promoted as a high-quality product in its own right.

Perhaps one important aspect that has come from the amount of effort and detail put into revising the TDA, even if it was technically unnecessary, is that the process itself has created greater ownership and ‘buy-in’ from the countries and particularly from the technical stakeholders. This is of further importance when considering the turnover of such technical expertise since the preliminary TDA was completed. There was therefore also a school-of-thought that maintained that although the preliminary TDA was probably good enough to guide the SAP, the process of review and gaps analysis was a valuable one in any case.

Nevertheless, the TDA stands as a high quality document that provides clear justification and support for why certain activities are prioritised in the SAP. The project has generally delivered some very high quality ‘marketing’ materials for good awareness-raising. Most importantly it stands as a fully comprehensive foundation for the Strategic Action Programme. Several government stakeholders noted that if the NAPs and SAP are fully implemented it will provide enormous benefits for the countries and they are well aware of this.

There are no actual indicators adopted through this process for monitoring the river basin but the need for such a monitoring process and for such indicators is captured in the SAP and should be negotiated and adopted during the early stages of SAP implementation within the overall umbrella of the IWRM Programme.

Gap Analysis – Environmental Flows and Persistent Organic Pollutants

As part of a process to strengthen the findings of the preliminary TDA, research was undertaken on Environmental Flows in the lower Orange-Senqu River Basin. The study area for this project was the Orange River downstream of the Fish River confluence (including the estuary and immediate marine environment) and the Fish River. The objective of this study was to:

- Determine the present ecological states (PES) and describe alternative ecological states.
- Set the environmental flow requirements (EFRs).
- Address scenarios which include future developments and growth and determine the ecological implications.

The study developed a set of Ecological Classifications, optimal flow release options developed a number of scenarios based on the environmental flow options and reached a detail set of conclusions as well as making some recommendations as follows:

- Implementation of the monitoring programme that was designed as part of this project within the context of an adaptive management framework;
- Updating the monitoring baseline;
- Undertaking specific studies to improve understanding to improve ecological specifications and thresholds of potential concern;

- Further investigating the role of the Orange River inflow to the nearshore marine environment through detailed field studies in conjunction with remote sensing observations.

Another of the gaps in the preliminary TDA which needed filling during this follow-up TDA process was a detailed analysis of the persistent organic pollutants (POPs) in the river basin. The aim was to determine the levels of 15 perfluorinated compounds (PFCs) in the Orange River Catchment where high levels of one of the PFCs, PFOS (perfluorooctanesulphanoic acid; one of the PFCs), was found previously, and to establish possible sources, pathways, exposures and hazard of the PFCs identified. This was achieved by:

- Determining the presence and levels of PFCs in water, sediment, fish and wild bird eggs;
- Investigate the possible sources of PFCs;
- Identify possible routes of uptake that may explain the levels in bird eggs;
- Perform a comparison between obtained and global data
- Contribute to data that can be used by ORASECOM, the Stockholm Convention, and other international conventions and treaties concerning POPs

This study, confirmed, with very high confidence, that PFOS present in high concentrations in bird eggs, but at much lower concentrations in sediment, mine tailings, and water, in the Orange-Senqu River Basin. The other PFCs were at negligible concentrations in all media.

Some of the PFO (Perfluorooctane Sulphonate - an organic pollutant) levels in fish that were measured were high and the project recorded extraordinarily high levels in bird's eggs in one or two areas (especially Bloemhof Dam and along the Vaal River). This could be from a number of sources including gold extraction techniques or from fire-fighting chemicals. Gold mining as a source was later excluded by the study. Certainly this should be the subject of further investigation.

Recommendations for further work and study included:

- 1) The route of uptake by water birds, and possibly other animals such as otters.
- 2) The potential impact the high levels of PFOS may have on birds and other aquatic associated biodiversity.
- 3) The source(s) and routes that PFCs takes to remote areas such as Bloemhof Dam
- 4) How much PFOS (mass-balance) is involved from a catchment and transboundary point-of-view?
- 5) What opportunities are available for mitigating releases?

5.3 Preparation of the Strategic Action Programme and the National Action Plans

The regional SAP, as well as the NAP for each country, is structured around four environmental priority areas of concern that were identified in the TDA:

- Increasing water demand
- Declining water resources quality
- Changes to the hydrological regime
- Land degradation.

Through the NAP consultation process, each country prioritised four areas of concern from its national perspective. In response to each priority area of concern, national targets were set to address the concerns over a 10-year time period. Interventions required to meet the targets were then identified. In line with national policies, strategies and plans, project concepts were developed

that package the proposed interventions into structured, implementable projects. These project concept notes (PCNs) form the backbone of each NAP.

Similarly, basin-wide SAP targets were set for the same 10-year time period and interventions developed to address the priority concerns. As in the NAPs, the interventions were packaged into structured, implementable projects. The resulting SAP project concept notes are presented in the Annexure. Collectively, the SAP and the four NAPs comprise an inter-related programme of 25 packaged projects addressing the main environmental challenges in the basin.

The final draft of the Strategic Action Programme was presented to the Commission in March 2014. A Briefing Note was circulated to all appropriate Ministries to emphasise the importance of formal adoption/endorsement of this SAP document. Generally the opinion of all stakeholders was that there had been a comprehensive and professional consultation process undertaken for the SAP but there was concern that the SAP process had been left too late and had to start even while the TDA was still under development. Despite this there was strong support for the SAP process and the final product, and for the establishment of focal points for the SAP development and better stakeholder engagement and work-shopping than had happened throughout the TDA process. However, there was some concern expressed about the consequent need for speed in SAP development (as a result of delays in the TDA). Also some stakeholders felt that, given more time, the SAP process could have been more intersectoral. The Evaluator raised some concern that climate change issues and adaptation could have been addressed more comprehensively in the SAP document but this was clarified through discussions with appropriate stakeholders and management personnel. During the ICP coordination meetings during the early stage of the project implementation, it was expressed clearly that the climate change and adaptation issues would be dealt with in the broader IWRM Plan; therefore, the UNDP-GEF support (and SAP) should not allocate its resources to those issues. Consequently the CC and CCA issues were not included in the SAP.

One innovative approach used in this SAP is the inclusion of Project Concept notes which, in essence, represent mini-projects or demonstrations of how the SAP priority actions (as derived from the TAD priority issues) can be implemented. These provide for some very concrete, on-the-ground interventions that can directly address the priority concerns derived from the identified impacts and the causal chain analysis. This serves to illustrate the potential value of re-designing the TDA-SAP process in similar projects in the future to run more in parallel rather than consecutively. This same Project Concept approach has also been used in the National Action Plans (NAPs). This project was therefore quite innovative in its design for a TDA-SAP foundation phase project. Yet, this was only possible because a preliminary TDA (and accompanying Causal Chain Analysis) was done during the project development phase. The inclusion of some demonstrations within the TDA SAP foundation process is also fairly innovative and has undoubtedly helped to build ownership and to motivate support at the political level through direct examples of success.

The NAP process has been very comprehensive and all-inclusive in its stakeholder engagement and its attention to detail. Each country had two national consultation workshops and there were also three regional meetings for the NAP development process. It was noted that these groups had to use the Preliminary TDA to guide the development of the NAPs as the final TDA was not available. Also too many of the NAP meetings were held within the main cities and not elsewhere in the basin. It was felt that having them maybe closer to the demonstration sites could have helped to raise awareness on the overall purpose of the demonstrations and helped to deliver the work of ORASECOM to the people on the ground. The Countries have all completed their NAPs (as of October 2013) and agreed on their content and objectives. This was a huge undertaking within

such a project as this with a limited time period of 4 years and related funding. Several country stakeholders noted that the NAP process was very strongly intersectoral with national working groups having been created for NAP development. These working groups had broad representation from NGOs, civil society and communities as well as government. Ministers are well aware of the development and existence of these NAPS and the process has created good political will and support to take these NAPs to implementation. It was noted by government stakeholders that the National Action Plans need to move ahead now and should be pushed and supported by the individual governments without waiting for donor funding. ORASECOM can serve a valuable role in promoting this need and in securing government commitment on the understanding that, in the long-term, the NAPs and the SAP are inseparable initiatives that need to be developed together. It is very important that the NAPs and the SAP are seen as a package and not as stand-alone entities or activities. Together they form the environmental component of the IWRM Plan and this environmental component can only be effective at both the national and regional level.

In Namibia, each river basin has to have its own IWRM Plan and NAP with a Basin Management Committee to oversee them. Every year they produce a national activity work-plan for the coming 12 months. All Ministries and NGOs meet once a year for this process and bring their individual work-plans and activities with them. These are then harmonised into one annual work-plan. The NAP Committee monitors this work-plan and the various activities although it doesn't implement them itself. This is a good example of intersectoral stakeholder coordination. The individual stakeholder groups do the implementation while the Committee coordinates. This provides a focus for spatial planning and associated governance. This is a national model that could provide a template for A. other countries and B. for the regional management process. In fact, the elements are already present to a great extent within ORASECOM.

In view of the fact that quite a number of ICPs have been working with and supporting ORASECOM in relation to transboundary river basin governance and Integrated Water Resource Management, the roles and support areas for each of these partners has been established by the Commission. This relates to the SAP inasmuch as this Strategic Action Programme is now viewed as the transboundary 'environmental' component of the greater IWRM Plan with the latter also including developmental, socioeconomic and institutional planning and support.

Government representatives that had worked closely with the project felt that the technical task teams and working groups set up under the NAP/SAP process should be sustained and made more formal so as to continue to promote and implement the technical components.

Despite the delayed start of the SAP and NAP development process, and despite the fact that 2014 turned out to be a particularly challenging year to organize a ministerial conference among the basin states due to three General Elections among the four basin states, the countries have managed to endorse the SAP at the ministerial level in 2014. This is a testimony to the strong ownership and drive by the ORASECOM and its member states on the SAP and its endorsement process. Since the advanced draft text for the SAP and NAPs became available in late 2013, the project has worked strictly through the existing ORASECOM process, under the guidance by the ORASECOM Secretariat, to move the documents forward through the appropriate channels to secure the necessary approval and adoption. Securing the ministerial endorsement of SAP in 2014 was challenging and only possible because the project worked closely with the ORASECOM at its final stage.

5.4 Basin Wide Stakeholder Involvement Activities

In terms of the cross-cutting stakeholder engagement issues, other than government individuals and ministries there does seem to have been a limited amount of effort or delivery within this objectives. On the other hand, the project did produce a significant array of awareness-raising products targeting a number of users, including children and schools. But it must be said that there was a lack of delivery of widespread stakeholder engagement by the project in relation to the aims and expectations outlined in the Stakeholder Involvement Strategy annexed to the Project Document. The following table reviews the expected outputs as per this Strategy in the Project Document against actual delivery.

Table 8: Stakeholder Involvement Strategy Delivery Assessment

Objectives from Project Document	Evaluation Assessment
I. Create four national stakeholder fora and one Basin Wide Stakeholder Forum (BWSF) based on findings of the completed stakeholder analysis and drawing on inputs from a wide array of stakeholder groups with diverse interests within the Orange-Senqu river basin.	National Stakeholder Fora created as part of the NAP/SAP process. No Basin Wide Stakeholder Forum. This was a deliberate decision from ORASECOM as it was considered to be too early and too sensitive a development and should be left until SAP/IWRM Plan Implementation
II. Provide input into the project development, including Strategic Action Programme development and demonstration project implementation through the BWSF with linkages to national stakeholder fora charged with supporting National Orange-Senqu Action Programmes.	See above in terms of BWSF. However, there was a fairly comprehensive involvement of stakeholders in SAP development. NAP level Stakeholder Fora have been interacting with SAP development and will continue to interact during SAP implementation
III. Based on the input of the BWSF, develop an iterative communication and outreach strategy for the project that emphasizes broad public awareness building and specific stakeholder group targeted education activities to be implemented through a small grants programme.	This was never achieved, possibly in part by the absence of a BWSF
IV. Develop hands-on stakeholder and public involvement activities at the local level in close coordination with the project SAP Demonstration Projects to be implemented by relevant role-players within the basin.	Demonstration Projects did achieve a high level of stakeholder and public involvement
V. Create and maintain an empirical mechanism to monitor and evaluate the effectiveness of the activities to determine what works, what needs improvement and how sustainable efforts are without long term project funding.	During the project, standard M&E processes were used (although the Results Framework could have been put to better use). ORASECOM and its secretariat stands effectively as a monitoring mechanism after the project and the empirical indicators would need to be developed in the early stages of SAP implementation

The Basin Wide Stakeholder Forum never really got off the ground. This may have been due to a number of reasons but it seems that a preference for national level basin stakeholder fora was a strong one. The Project explained that the ORASECOM, through the PSC, made a specific request to the Project to start with the establishment of the national stakeholder fora so that the ORASECOM can “test the water” before it makes any significant investment in time and resources to establish the basin-wide forum. There also appeared to be some political sensitivities associated with the establishment of a basin wide stakeholder forum which further supported a trial period at the national level first.

Some capacity building was noted. The Project arranged to send a Ph.D. student to Norway to learn techniques for analysis of persistent organic pollutants. This was partially funded by the UNDP-GEF ORASECOM project and this student is now based at the National Metrology Institute of South Africa (NMISA) in South Africa and running a POPs analysis facility which is of tremendous value to the region.

Government stakeholders requested that more attention be given to supporting and capacity-building the young experts coming up through the system, possibly through careful monitoring and support of their work and improvements in their skills by mentors. This should be taken into consideration in any follow-up activities supported by UNDP and GEF.

The Communications Task Teams had the responsibility for disseminating material but it was noted by them that it was difficult then to monitor where the material went in-country and if they were being properly used or even reached the appropriate audiences.

5.5 Demonstration Projects

The overall feedback on the demonstrations from all stakeholders was one of tremendous support and appreciation of achievement. The Commission itself and its members were highly impressed with the on-the-ground delivery from all of the demonstrations. There is clearly strong government support in all of the countries for these activities and outcomes as well as a noteworthy level of effort and voluntary input from the communities themselves who were undoubtedly very proud of their achievements and very positive about future development and expansion. This strong community support coupled with cross-sectoral government backing (even as high as the ministerial and presidential level in some cases) bodes well for further activities and replication of lessons. The project did well to recruit the appropriate in-country personnel (either individuals or through an institutional arrangement) who could interact with and understand the community needs and were aware of the importance of support (and not undermining) traditional leadership values within the communities.

There was no apparent conflict regarding site selection for the demonstrations. These were agreed at the beginning of the Project through a detailed scoping exercise and associated selection criteria. It should be noted that having the findings from the preliminary TDA available during the scoping exercise for the demonstrations was an essential requirement. Without clearly identified and agreed priority issues it would not have been possible to develop the criteria for demonstration site selection.

Some of the country stakeholders did feel that there was an imbalance in budget allocation toward the environmental flow demonstration in South Africa and Namibia and that the demonstrations in

Botswana and Lesotho could have benefited greatly and delivered more if their budget allocations had been of an equal size.

In terms of design and delivery, the demonstrations all needed to have started earlier to allow for better results and lessons before end of project. These demonstrations did not start until late 2011, more than two years after the project started. Consequently, many of the stakeholders associated with the demonstrations felt that it was not really possible in the short time available to rehabilitate rangelands properly or to stabilise the dune systems.

Despite this it is clear to see that very good work was achieved in the short period available and that a lot of the activities are replicable and could be built on. As with all demonstrations of this nature, it has created a strong sense of ownership within the communities (and, in the case of the project, within government also). Most government stakeholders felt that the demonstrations were good value for money and very worthwhile. They all emphasised the fact that the UNDP GEF project had actually delivered concrete results on-the-ground which was seen to be a huge benefit and positive deliverable by the countries and the communities. In the past there had been too much theory, workshops and/or training by other international funding agencies. On the other hand, this project had actually made a significant difference within the communities. The also felt that ORASECOM should now take ownership of the results and lessons from the demonstrations and work with the countries to 'roll these out' on a wider scale, both in terms of awareness and as replication where appropriate.

Discussions in the field regarding the logistics and administration for the demonstrations revealed some problems which should be avoided in future. All of the field officers were highly dedicated, committed and resourceful. However, although the planning and inception process for the demonstrations was well managed, the actual implementation of activities ran into a lot of administrative hurdles and delays and all stakeholders felt that much more could have been delivered on the ground if these administrative delays could have been avoided.

One particular concern raised by the demonstration stakeholders, particularly government, was the delays in payments to vendors. In one demonstration area, two vendors had not been paid for nearly a year which has created embarrassment for the associated government personnel that the vendors know are working with the project. This was specifically raised by one senior government officer at a formal meeting with the Evaluator and was the subject of discussion and concern also at the final Project Steering Committee. Apparently, investigation seems to place the delay in payment at the level of the PCU despite several payment submissions. This is not an acceptable situation for any project to delay payments for 12 months but when it causes friction and embarrassment with government counterparts it can be seen to be most undesirable. These delays in delivery appeared to have damaged some of the government ownership in the early days as a result of frictions between government departments, community representatives and local suppliers.

Demonstration Project on Community-Based Rangeland Management in Lesotho

This was a community-based rangeland management demonstration project in Mt Moorosi Catchment Area, Quthing District, Lesotho. The main objective of the project was to demonstrate sustainable management of rangelands on the basis of traditional knowledge and strengthened community-based institutions, while enhancing resilience of livelihoods through exploration of alternative income generating options. The project focused on the ecological and socioeconomic aspects of range resources management. The expected outcomes of the project and related indicators were as follows:

Environmental integrity: Rangeland conditions are improved through the decline of unsustainable grazing practices and the rehabilitation of degraded areas.

Indicator: % reduction in degraded areas, baseline and end-of-project.

Social empowerment and equity: Community based institutions established/empowered to manage their rangelands in a sustainable way. Vulnerable households are adequately represented in these community based institutions.

Indicator: focus group discussions, structured interviews, end-of-project.

Poverty alleviation and economic development: Alternate income sources, in particular those based on natural resources commodities, decrease the overall dependency on grazing for economic subsistence.

Indicator: % contribution of alternate income sources to average household income, baseline and end-of-project.

The rangeland management demonstration project was implemented in four villages in Lesotho within the boundaries of Telle G04 Community Council in Mt Moorosi, in the Quthing District of Lesotho (See Figure 1). The four villages are: Ha Koali, Ha Mantsoepa, Ha Moqalo and Ha Sekhonyana.



Figure 1 Location of Mount Moorosi Demonstration Site in Lesotho

This demonstration activity was contracted out to a national NGO in Lesotho, the Serumula Development Association, that specialises in agricultural management. The scoping exercise to select the sites had already been completed and selection confirmed by the time Serumula was contracted. Serumula fostered a good working relationship with the PCU but found it very difficult to keep things moving when the Project Manager resigned and they had very little notice of this happening. Serumula worked closely with the Institute of Natural Resources in Pietermaritzburg in South Africa, and which had undertaken socioeconomic surveys and range inventory surveys with the communities. One of the improvements that Serumula and INR made to the project was a plan to teach the communities to harvest grass seed for rehabilitation of the grasslands where invasive plants had been cleared, rather than to purchase it as grass seed is a very expensive commodity. Unfortunately, the delay in approval of the extension of the project meant that they missed the

harvesting season (February-March). This has now placed the cleared hillsides at risk from erosion in the absence of grasses to bind the soil.

The Evaluator was able to spend some valuable and considerable amount of time with the communities themselves at the demonstration sites. It was very clear that they were justly proud of their achievements. An entire hillside of many hectares had been cleared of alien invasives and was ready for planting with grass for grazing and for soil stabilisation. They were also planning on terracing in order to control further erosion. It was particularly impressive that all of this work had been done on a voluntary basis, primarily by the women of the villages with assistance from some of the male herders. The villages have received some additional encouragement from the project by way of small livestock of higher market value and some trees to assist in their farming needs. In terms of improvements to the process, the community felt that they could have done more if they had more tools and some adequate work clothing such as gloves and boots. The shortage of tools prevented more members of the community from getting involved in the clearance process. The village elders and chief were very pleased with the outcome and also with the potential for replication. Already surrounding villages have contacted the demonstration communities to ask about how they can also do the same clearing and rehabilitation (one rather telling comment from a neighbouring village was “Why is it that they get help to re-develop their grassland and all the government ever gives us is more trees! We don’t want more trees, we want fewer trees and more grass like they are getting!”). The demonstration community workers had discussed this with neighbouring villages and they are very willing to go and train them and show them how to do this rangeland rehabilitation. All of the community members were very excited about the possibility of further activities. They recognise the value of what has been achieved and they stated categorically that they would continue to try and expand this rangeland rehabilitation process, even in the absence of any further funding or support. One pertinent quote from a village elder was that the project had “opened their eyes and showed them what they could do for themselves”.

In an attempt to reduce erosion, the villagers have also built silt traps in the river bed and dongas. As a next step they would value having more guidance from a local/regional expert on soil stabilisation and water capture. There were some obvious opportunities around the villages and hillsides for small-scale capture-ponds that could A. store water for livestock, B. reduce erosion and C. possibly even be considered for small-scale aquaculture on a seasonal basis.

A socioeconomic survey was undertaken alongside these demonstration projects in Lesotho which reached the following conclusions

- The involvement of women in rangeland management, which has traditionally been the jurisdiction of men, does not always have support among men. Sensitivity needs to be foremost then in relation to any greater involvement of women in rangeland management and rehabilitation activities to avoid creating tensions within the communities.
- There is a diversity and difference of opinion on the status of the rangelands even in the village communities with some individuals and households suggesting the rangelands are degrading while others say the condition is improving. Awareness raising may be a more important aspect than originally considered and may need to be introduced in more depth in order to gain widespread recognition of the problems and build support for implementing management solutions.
- Some of the drivers that have been identified as contributing to the degradation of rangelands are associated with a lack of enforcement and control, or simply because people

do not care. This highlights the need for governance issues to also be addressed in the community based rangeland management initiatives.

- In some cases current use patterns are driven by a lack of access to alternatives by local households. Exploring alternative technologies or opportunities for ploughing beyond the use of draught animals could, for example, be a new approach to reduce the dependence on cattle and therefore create an opportunity to encourage a reduction in cattle numbers on the rangelands.
- There is motivation to expand these rehabilitation activities. They do however require on-going support, such as the provision of seeds and materials, as they are unable to afford to purchase these themselves. The introduction of incentives such as livelihood activities (e.g. home-based enterprises to community based enterprises) that could generate income for the participants, would likely help to expand the support base and buy-in for these interventions across the communities.



Fig 2: Clearing of Invasive species (*Chrysocoma* spp) at Ha Koali (Before, During and After clearing the bushes). With acknowledgement to Serumula Development Association for photographs (Draft Final Report April 2014)

The expected outcomes of the project, related indicators as provided in the Scoping Exercise, and the current Evaluation Assessment are as follows:

Environmental Integrity: Rangeland conditions are improved through the decline of unsustainable grazing practices and the rehabilitation of degraded areas.

Indicator: % reduction in degraded areas, baseline and end-of-project.

Evaluation Assessment: Significant reduction in degraded areas. Percentage difficult to estimate as baseline and original goal unknown. Final report identifies actual area rehabilitated is equal to about 50 hectares

Social empowerment and equity: Community based institutions established/empowered to manage their rangelands in a sustainable way. Vulnerable households are adequately represented in these community based institutions.

Indicator: focus group discussions, structured interviews, end-of-project.

Evaluation Assessment: Clear evidence of group interactions and community empowerment, especially among the women of the communities.

Poverty alleviation and economic development: Alternate income sources, in particular those based on natural resources commodities, decrease the overall dependency on grazing for economic subsistence.

Indicator: % contribution of alternate income sources to average household income, baseline and end-of-project.

Evaluation Assessment: No clear figures or precise evidence of poverty alleviation or economic development as such but general support suggests communities see this as a long-term partial solution to their income and poverty related problems.

Demonstration Project on Community Based Rangeland Management in Kgalagadi District, Botswana

The demonstration project on community based rangeland management in Botswana is one of the three demonstration projects in the four Orange-Senqu River riparian states (Botswana, Lesotho, Namibia and South Africa). This project has its sites at Khawa and Zutshwa in the Kgalagadi District of Botswana (Figure 2 below).

The overall objective of the project is *'to have rangelands that are sustainably managed, based on traditional knowledge systems and strengthened community-based institutions; while enhancing resilience of local livelihoods, supported by alternative income generating options'*.

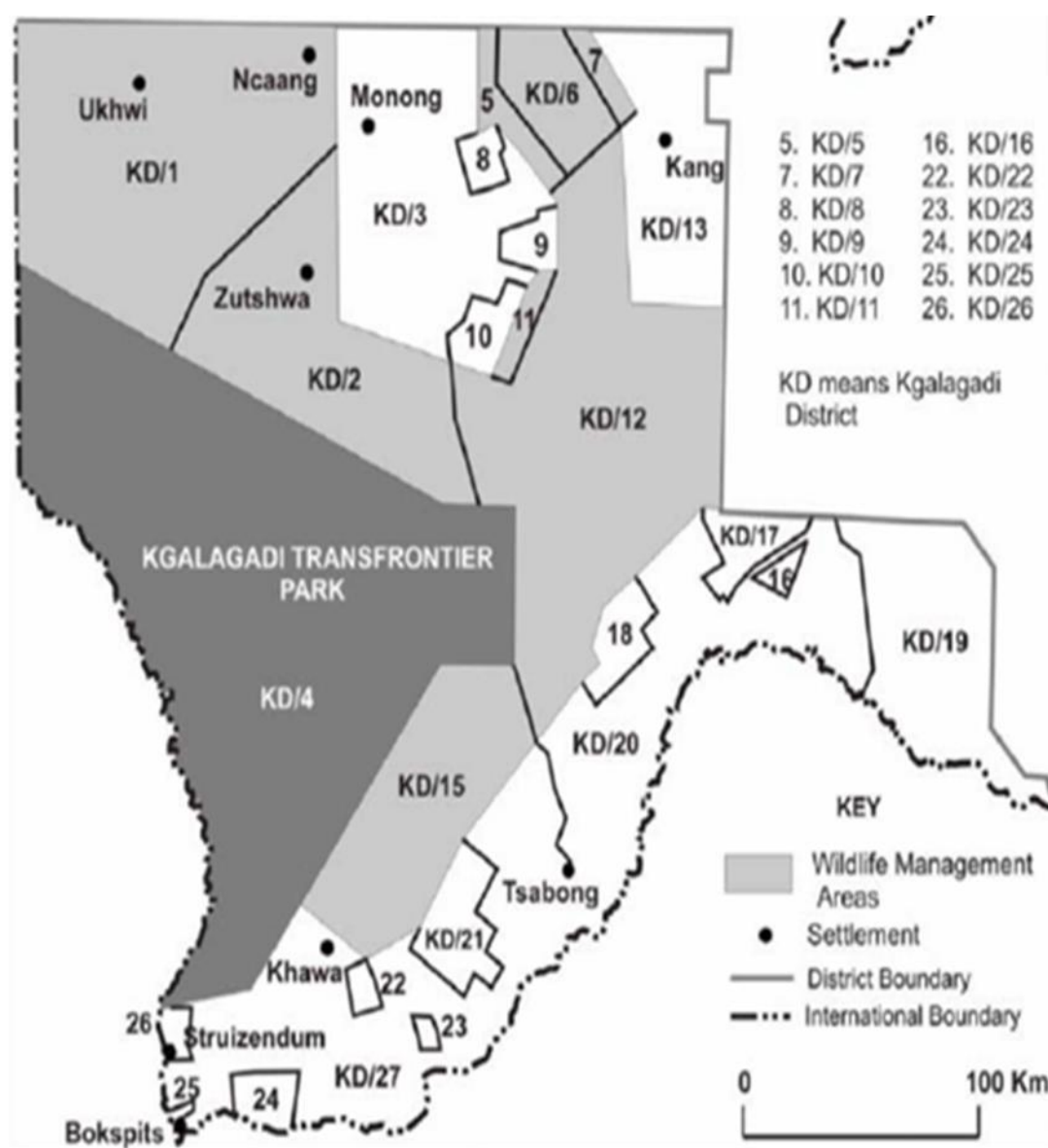


Figure 2: Botswana Rangeland Demonstration Project Site Map

The main activities undertaken are captured in the following table taken from the Final Report on the demonstration project:

Table 9: Activities Undertaken for the Botswana Rangeland Management Demonstration Project

Thematic Area	Activity	Location
Rangeland Management	Human Wildlife Conflict	Khawa and Zutshwa
	Migratory/Rotational Grazing	Khawa and Zutshwa
	Tree planting and Sand Dune Stabilisation	Khawa
Water Use/Conservation	Water Harvesting	Khawa and Zutshwa
Alternative Economic Opportunities	Small Stock Cooperative (sheep and goats)	Khawa and Zutshwa
	Introduction of Swakara sheep	Khawa
	Backyard vegetable garden	Khawa
	Salt Mining	Zutshwa
	Camp site	Zutshwa

The design and construction of a rainwater harvesting system has certainly been a major contribution to community welfare. The 46,000 litre underground tank is fed from the large roof top of the village community hall. The construction of the underground tank is not difficult and local people could be trained to build them if they had materials. The water is pumped from the tank using solar power and is used by the community and its main purpose is to irrigate a kitchen garden where fresh vegetables are grown under protective cover and shade. This is a valuable activity for the community. All the materials were supplied by the project and the community and government provided skilled and unskilled labour. The garden provides a source of income from sale of vegetables as well a source of much-needed vitamins in an area where HIV is prevalent. Previously they had to bring water to the community in a bowser but they are no longer dependent on this. Both the communities and the involved senior government personnel emphasised many times how different this was to other attempts to work with them from other agencies. This project had really delivered valuable outcomes on the ground and they were very grateful for this.



Figure 3 **Minister of Minerals, Energy and Water Resources: Honourable Kitso Mokaila (1st left) and other dignitaries at the handing over of the rainwater harvesting project in Khawa. Picture: Abigail Lillian Engleton**

The demonstration project also recognised the issue of conflict between wildlife and the community. Khawa is close to a wildlife park and Zutshwa is actually within a wildlife management area, and livestock often graze alongside wild animals. Predation then becomes a problem for the community and their livestock. Unusually, the livestock have traditionally been kraaled during the day and then released to roam and graze during the night. This was so that the animal could avoid the excesses of heat during the day (and water supplies are at the kraal). However, this tended to create more incidents of predation. Furthermore, the traditional herdsman that used to move with the livestock were no longer present. These used to be young children but they were no longer available during the day as they were at school. The project set out to adapt livestock management practices to reduce conflict. This included the re-introduction of herding of livestock, the use of guard animals such as dogs and donkeys, construction of predator proof kraals and kraaling at night. It was noted that if the communities lost livestock to predators in the bush at night they would not be compensated.

Sand dune stabilisation was also recognised to be a problem that this demonstration set out to address. The aim was to plant appropriate vegetation on the dunes so as to stabilise them and reduce wind-induced movement. Various dunes around the villages are starting to intrude into gardens and even houses and threaten to engulf the village cemetery. Although the principle of dune stabilisation is a sound one, the use of inappropriate plants, unreliable irrigation and failure to exclude livestock from the freshly planted areas (leading to grazing of the new plants) means that this effort has been less than successful and needs to be re-thought.

Another activity under this demonstration was an alternative income-generating and alternative livelihood approach that can reduce the pressure on the natural resources. Swakara Sheep are to be introduced as an alternative and enclosed within a fenced area. These animals are of high economic value due to their 4-fold productivity (meat, wool, fat and hides) as compared to other small stock. The project engaged consultants from Namibia to conduct the feasibility survey in Khawa, and to undertake training and benchmarking exercises for community representatives to attend in Keetmashoop, Namibia. The village representatives that were sent to Namibia for training found it very valuable and the village would like to send more. Upon their return they would be willing to train other villages in the same techniques. One observation made during the site visit was the possibility of sinking a new borehole at the fenced enclosure for the sheep. The communities had been planning with the project to run a pipeline and pump water from the existing borehole but this is nearly 5 kilometres away. The cost of the pipes and a sufficiently sturdy pump to maintain a flow along that distance (especially in consideration of the brackish nature of the water which reduces the lifetime of the pump) could quite probably exceed the cost of sinking a borehole onsite. One concern expressed by the community was the length of time taken to process the procurement of the sheep. A suitable flock had been identified many months previously but, by the time procurement approval was received, the flock had been sold by the owner and they had to start the process again.

The Evaluator met with the community that was part of the demonstration at Khawa. The community has set up a Development Trust and all activities are approved and overseen by the Development Committee. Government provided the skilled labour to build the rainwater harvesting system and to create the enclosure for the sheep. The community had plans drawn up to create a wildlife range camp but this was not in progress as yet. They had been promised that someone representing ORASECOM would visit them to explain the bigger picture in terms of water basin management but this had not happened initially as planned. However the Executive Secretary was present for the handover of the rainwater harvesting project along with the Minister.

At Zutshwa, the Conservation Trust was funded by the Government (through their environment development fund) for the construction of facilities at their camping site as an alternative livelihood strategy. The project supported this activity by financing the water reticulation to the site. Rainwater capture at Zutshwa has really improved the economic value of the site where previously it had not been a traditional practice to harvest water off the roof of buildings. This activity was, they felt, highly replicable within all villages and communities.

The demonstration projects clearly had strong support from government and the Evaluator noted the obvious involvement and awareness of senior government personnel who organised an Extraordinary Technical Advisory Committee specifically to brief the Evaluation process. It was clear from this that the demonstration project had received strong support and the TAC met quarterly for briefings from the Field Officer and to discuss work-plans and any issues arising. Unlike other internationally-funded projects that have tried to work with the communities, the UNDP GEF Project has delivered actual improvements on the ground and this has been recognised and applauded by the communities.

Some Government personnel felt that the role of the government versus the role of the project was not clarified during Inception. They noted that an outcome from this was that the Field Officer had to manage without a vehicle for a long period or negotiate with government to use a government vehicle. The Project took a long time to organise such a vehicle and in the interim the government was expected to provide transport which caused problem in funding and in overtime. These problems went to a high level in the government and created early frictions which the field officer

had to overcome. However, in fairness it should be noted that the Term of Reference for this Field Officer did clarify that the Project would only cover mileage costs and that the Field Officer was expected to provide his/her own vehicle. The decision to purchase car for the Field Officer was a decision made later by the project Manager in an attempt to resolve the aforementioned problems.

Also, having only one field officer to move continuously between Gaborone, Khawa and Zutshwa as very time-demanding and inefficient over such large distances and difficult road. A Field Officer (or deputy) at each site would have been preferred.

Government Technical Advisors felt that the farmers needed more training and advice on livestock management. They noted that the project really picked up momentum with the contracting and arrival of the field officer and there was unanimous support for this person and her hard work to make things happen, despite frustrations with the procurement rules and delays. The Field Officer was also described by the community representatives as a ‘good-hearted and hard-working individual who would get her hands dirty along with everyone else, always with a smile!’. This type of positive interaction is very important for a project of this nature and helps to bridge the gap between the work on the ground and the overall project management approach back at the Project Coordination Unit.

Lack of clarity over the demonstration project budget was also an issue. Nobody, not even the Field Officer, seemed to be able to find out where the budget stood at any particular time, how much had been spent already and how much remained. This was a cause for concern within the TAC. In order to try and keep the project on track, the Field Officer took the initiative to use her own funds on occasion and then submitted claims back to UNOPS. However, she was later given instructions by UNOPS not to do this. All projects find themselves having to follow this course of action on occasion and it is commendable that individuals would wish to be so supportive. However, there are issues related to pre-approval and due process for selecting where and how purchases are made. UNOPS do have rules for this which should have been made clearer (i.e. under \$2,500 a simple comparison of prices can suffice to justify a purchase). This should be made clearer to Project Managers and PCU finance staff in future and shared as appropriate with field personnel. Also, it was clear that the vehicle selected for the project was not appropriate. This vehicle had to service two demonstration sites at considerable distances apart as well as travel regularly to Gaborone. The vehicle should have been A. larger so as to be able to transport materials and B. should have had at least a double cab so as to be able to transport project stakeholders. This was apparent during the Evaluation as there was insufficient room in the vehicles for a field visit and another vehicle was required (hired).

Botswana stakeholders did note that they felt they had not benefited from the project as much as the other countries and placed the reason for this as being because Botswana communities are more dependent on groundwater (although this is also true of Namibian communities). Generally they were concerned about the declining groundwater quality. They would have wished to see the project place more emphasis and ‘demonstration’ on both land degradation and climate change. They did not feel they had benefited from the Learning Box activities. Government representatives also complained about the lengthy and complex UNOPS procurement process resulting in long delays in payments and the fact that the terms of payment imposed by UNOPS were not always accepted by some of the suppliers in Tsabong and Hukuntsi. Government personnel recommended the use of an NGO in the region to handle all procurements and payment in future (as per Lesotho) which would then only require one vendor agreement with UNOPS.

The expected outcomes of the project, related indicators as provided in the Scoping Exercise, and the current Evaluation Assessment are as follows:

Environmental integrity: Rangeland conditions are improved through the decline of unsustainable grazing practices and the rehabilitation of degraded areas.

Indicator: % reduction in degraded areas, baseline and end-of-project.

Evaluation Assessment: This demonstration was less successful in the context. This was partly due to the inability or lack of intent to control grazing practices and partly due inability to rehabilitate (use of wrong plants and lack of available irrigation water). There was little obvious reduction in degraded areas at the sites visited in Khawa.

Social empowerment and equity: Community based institutions are empowered to manage their rangelands in a sustainable way. Female headed and other vulnerable households are adequately represented in these community based institutions.

Indicator: focus group discussions, structured interviews, end-of-project.

Evaluation Assessment: Community based institutions certainly have the management mandate and authority and females seem to be well represented. The community engagement was still impressive although focus was more on water sustainability and producing a valuable crop than on rehabilitation of degraded areas.

Poverty alleviation and economic development: Alternate income sources, in particular those based on natural resources commodities as well as tourism and wildlife related activities, decrease the overall dependency on grazing for economic subsistence. **Indicator: % contribution of alternate income sources to average household income, baseline and end-of-project.**

Evaluation Assessment: Good alternative income sources were created and potential for tourism. This demonstration has provided a valuable example of alternative income sources.

Demonstration Project on Water Management in the Irrigation Sector in Namibia and South Africa

This activity was designed to demonstrate best management practices related to water conservation and water demand as well as environmental flow guidelines for lower Orange and Fish River and Orange River estuary/mouth. It set out to show farmers how the implementation of best practices can lead to the saving of water and improvement of yields. The key parameters to be included in the monitoring and evaluation of best management practices (BMPs) were:

- Volume of irrigation applied versus yield obtained (effective rainfall to be included)
- Volume lost as a result of irrigation practices
- Efficiency of scheduling
- System efficiency

First, it was necessary to develop the methodology and have it approved by ORASECOM. This then required an intensive biophysical survey. The demo arranged two specialist meetings to help drive the process as well as a 'what if' predictive modelling and scenario development associated in possible changes in the flow. This is also now a part of the IWRM plan and helps to define the sensitivity of systems to abstracting. The data are also now part of the ORASECOM database.

The Noordoewer and Vioolsdrift transboundary demonstration region covers some 800 hectares along 25 kilometres of the lower Orange River which acts here as a political boundary between South Africa and Namibia. A number of crops are grown here (see Annex ???) and more recently the farmers have been trying to balance their productivity between more water-intensive crops

such as Lucerne and those that are less demanding such as table grapes. It has been difficult to convince farmers to change their ways unless you can find an incentive. In the past, flooding has always been a cheaper option to pumping and drip-feed but also requires much more water. Now they have started to see the value of 'laser-levelling' where the fields are actually graded to a gentle slope which then requires A. a lot less water, B floods faster so needs less management and C. and produces a higher and better quality crop return. This demonstration started in late November 2012. They struggled to get the demo up and running initially and missed the first growing season. The remoteness of this area is part of the problem and problems encountered in trying to get service providers to come there. They have also had a lot of problems with algae blocking the canal network that delivers water from the river. One or two small storage dams have found that reed-beds help to clean the water and prevent algal build-up downstream but it would require quite a sizeable 'cleaning' area to do this for the entire system. It may be possible to consider the introduction of algal-feeders into the canals as long as A. they were not invasive to that part of the river and B. they could be contained within the canal system so as to be effective.

The entire scheme has a Joint Irrigation Authority made up of 3 farmers and a government representative from each of the two countries (Namibia and South Africa). There is a joint 'chair' arrangement from each country as well. One of the values of the JIA is that it can measure what the members are using in terms of abstracted water through monitoring processes by monitoring the in-flow. It is not currently possible to measure each discharge back into the river however as there are too many over-flow points within the scheme.

The demonstration has shown that it is possible to reduce irrigation and abstraction demands. And they have done so by about 20% for most of the year. But then there is a surge in demand at certain peak growing periods. The canal system which channels water for irrigation is operative throughout the year and individual sluice gates can be opened or shut as each farmer requires. During those periods where they need less water, they find it too expensive to store water taken from river already so they merely let it flow through the canal abstraction system and back into the river. If they could develop a cost-effective storage system this could be very advantageous. One or two farmers have built storage dams but they are not cheap. One possibility could be to link such storage systems with well-planned, small-scale aquaculture initiatives which would add value without polluting or threatening the water basin with invasives.

There are two hydroelectric dams just upstream of this area and they have significantly altered the environmental flow. Whereas in the past the river used to experience flooding and drying, there is now an almost constant level of water flowing through as the hydroelectric schemes store and release at a regular rate so as to maintain energy production. The seasonal flooding and drying periods used to keep the reed-beds within the river in check and made sure they did not grow and expand to take over the river banks and islands. Now they are prolific and are almost certainly altering this ecosystem. Further down stream at the river mouth, in the absence of any drying out, the river stays open and is no longer closed off by sand banks as it used to be during the dry periods. This is altering the estuary itself which is a Ramsar site. There has been a proposal to build a third dam below the other two which could act purely as a storage dam and through which the water could be released or held back seasonally so as to return the 'environmental flow' to its original condition (or as close as possible).

In the early stages there was some physical presence from the PCU at the demonstration inception but they would have appreciated a little more interaction with the PCU.

It is not really possible for this demonstration project to replicate or expand within its immediate geographical surroundings as there is not enough available land. What is available has not been

irrigated previously and they are concerned about the salt content and allowing this to run into the existing system.

In terms of expected outcomes, there were two levels to be considered. Outcomes at the Distributor level (i.e. the Joint Management Authority) and outcomes at the Irrigator level (i.e. at the level of the farmers). Indicators or means of verification were considered essential both for demonstration to the Client (ORASECOM and UNDP) of project progress and results and for the JIA and farmers to monitor progress over the project life and beyond.

Expected outcomes at the distributor level (JIA) included:

Improved and accurate measurement (quantity and quality) of abstraction/diversion of water to the irrigation scheme and the return flows to the river;
Improved and accurate measurement of plots areas, crops cultivated, yields etc, all captured on GIS database;
Proven reduced abstraction/diversion of water to the irrigation scheme (GEF IW stress reduction indicator 8);
Improved water ordering systems and scheduling, water market among farmers established (if practical);
Water Management Plan established and updated on an annual basis;
Replicable strategy, highlighting areas which can be considered as universal and how these can be implemented.

Indicators included:

Measurement of flows into and return flows out of the scheme (quantity and quality).
Quantification of stress reduction (% of reduced water use).
Lessons learnt (documented in report or other publication/media).

Evaluation Assessment:

Measurements of in-flow are regular and automated. Measurements of out-flow are more complicated due to the numerous discharges from each farm but the actual impacts are monitored in the river itself. It has been possible to accurately gauge reduction of water use however which is in the order of 20-25%. Lessons learned have been clearly documented

Expected outcomes at the irrigator level (farmers) included:

Improved and accurate measurement of water supplied to individual farmers/offtakes;
Reduced water consumption and improved yields on demonstration plots;
Agreement with and support for introduced best management practices by farmers and JIA.

Indicators included:

Structured interviews with farmers participating in the demo project gauging at mid-term: (i) their interest in adopting new practices, (ii) their willingness to reduce their overall water consumption/use and at the end (iii) improved productivity and (iv) replicability of piloted approaches in other areas of the Basin.

Evaluation Assessment:

Interviews with farmers show a clear and positive interest and support now they have seen that water use and associated effort are down and crop yield has risen. Willingness to reduce overall consumption is linked to their willingness to reduce effort and cost (pumps and electricity). These pilot approaches are highly replicable elsewhere.

5.6 Project Management as a Project Component and Deliverable

Most of the Project Management issues have been covered in detail above. The project did operate for a while without finance and administrative staff (nearly 2 years in total) and the erratic nature of staffing did not assist this component in its management delivery. Furthermore, inadequate monitoring and management of contractors (particularly in relation to delays in delivery linked with continuous contract extensions) reduced the management efficiency of the project considerably.

The POPs analysis did highlight a specific problem in actual administration/management within the project but outside of the control of the PCU. It was impossible to get a permit in time to collect bird's eggs in Namibia for POPs analysis and permits for a number of other activities. The Environmental Flow Demonstration also had big problems trying to access or to obtain data from Namibia which threatened the effectiveness of the project. One proposal was that, in future, closer involvement of Water Ministries/Departments would help to facilitate obtaining permits. This lack of engagement with appropriate government bodies was a weakness in the project.

The project undoubtedly delivered some very valuable technical and awareness materials. These not only included the TDA and NAPs/SAP but also some very useful including materials for the Learning Box and MiniSASS; Pule's River Journey – an Exploration of the Orange-Senqu River Basin for Children (often referred to as the Children's TDA), etc. The Learning Box was a GIZ-funded ORASECOM initiative and created opportunities to learn from the Danube River Basin and its Commission on how to raise awareness with learning materials. Generally it was commented that UNDP provided some of the best quality products for much of the river basin and ORASECOM awareness raising and educational needs.

Evaluation Assessment of Results, Delivery and Effectiveness (By Component)

The Project will leave a very valuable legacy in terms of the Water Information System and other web-based products as well as the high-quality hard products. The Completion of the Transboundary Diagnostic Analysis has been the Achilles Heel to this project in terms of delivery and time constraints but is, nevertheless, an excellent end-product. NAP-SAP development were constrained by delays in TDA delivery yet still managed to produce very good documents and clear signs of ownership as demonstrated by the Ministerial endorsement of SAP and country-level adoption of all NAPs. Basin-wide Stakeholder Activities have not been so successful except at the community level but, with the good products available and the strong national and basin-level political support, there is a foundation for resolving this in the longer term. The Demonstration Projects have provided some exceptionally good lessons and best practices as well as highly replicable on-the-ground actions that have the full support of the communities and can be transferred to other geographical areas.

OVERALL: HIGHLY SATISFACTORY

6. Assessment – Sustainability and Replicability

Despite administrative delays and time-related set-backs, all of the activities undertaken during this UNDP GEF Project have helped to build the sustainability of the ORASECOM and the overall water basin management approach via an Integrated Water Resource Management partnership

Generally, the outlook is good for a replicable and sustainable product if an effective SAP implementation process can continue onward smoothly and alongside NAP implementation and within the overall IWRM programme. The high quality technical products should continue to be distributed to appropriate targets. A number of these products have been highly praised by stakeholders and by UN and GEF alike. These include ‘From Source to Sea - Interactions between the Orange-Senqu River basin and the Benguela Current Large Marine Ecosystem’ and ‘Abundance and Scarcity – The Story of Water in the Orange-Senqu River Basin’. The Orange-Senqu Infrastructure Catalogue is also a very valuable resource for identifying facts and figures related to the various built structures and dams along the river system. Many of these publications are available as both web-based and printed products .

Monitoring is a highest priority for sustainability and the development of an effective pragmatic monitoring programme is high on the list of requirements for ‘next steps’. There was no really effective link between the environmental flow work and reserves/protected areas which have, in fact, a legal requirement to monitor environmental flow. There has been a lot of science, mathematics and number-crunching to establish the environmental flow requirements but with little or no interpretation of these results into management guidelines or implementation. There are no apparent follow-up plans for monitoring or enforcement other than the Project Concept note within the SAP. This means that if fish are found to be dying for example, no-one will know if it is due to a drastic change in environmental flow or if it is due to pollution. According to the scientific experts interviewed through this evaluation process, effective monitoring could resolve this but it needs to be tailor-made in terms of indicators and sites. It also needs to be stepped. i.e. always monitor Step 1 indicators (e.g. key priority indicators such as diatoms). Then only go to more intensive/ expensive monitoring at Step 2 or 3 if there is a clearly recognisable and specific problem or concern. The expertise already exists in the region to interpret the data and models are available for prediction but it needs the political will to set up the monitoring and analysis programmes.

The website with its valuable linkages and its all-important Water Information System needs to be seen to be a priority for monitoring and management purposes. It is considered to be critically important to keep the website (that has been developed through and alongside the project) running, maintained and updated, especially the Water Information System which needs support to be kept up-to-date. The Evaluator understands that The O&M costs for the website has been already absorbed by the ORASECOM Secretariat’s regular budget and the ORASECOM Secretariat signed the contract with the service provider and started paying the costs since July 2014. This is a good sign of sustainability and ownership.

Stakeholders would like to see a Science Symposium to share some of the many good results achieved during the TDA-SAP process. The POPs analysis has highlighted a monitoring need to look at the main pollutants with the primary concerns being PCBs, PFOS and PAHS. PCBs are now banned throughout the region so they should cease to become a problem. It is possible to intervene and manage the other two but it would be necessary to identify the exact sources and risks involved. POPs analysis should also be expanded to include the newly-added POPs (hexabromocyclododecane, short-chained chlorinated paraffin, chlorinated naphthalene, hexachlorobutadiene, and pentachlorophenol). In further studies it is also important to look at the

chemicals coming from sewage treatment plants (pharmaceutical and personal care products), endocrine disrupting activity (as identified by SAICM as a priority activity), plastics pollution, and the effects and potential impacts on the Orange-Senqu River. A five-year monitoring cycle was proposed for POPs, PAHs, and heavy metals.

The demonstrations have produced some highly replicable lessons and these should be captured more specifically by ORASECOM and consideration given to funding their replication through SAP/IWRM Plan implementation and through other projects and initiatives in the region.

Botswana has proposed setting up a National Research Centre for water basin issues which donors could help to support. This could provide valuable on-the-ground delivery of activities instead of desk-top and theoretical products. Consideration should be given to whether this would also be appropriate in the other countries. Ideally such an approach should try and identify an existing institution that could be strengthened.

In the long-term, there may be some moderate risks still in the context of socioeconomic sustainability. On the positive side, the Lesotho demonstration (on rehabilitation of rangelands) has delivered significant socioeconomic impacts during the project implementation period at a localised level. It is also probable that the irrigation demonstration has had some long-term positive economic impacts for the farmers (again, at a localised level) through the detailed weather/soil water content data, which was developed by the project and handed over to the JIA. The proof of sustainability will rest in whether these activities can continue to be maintained and, indeed, replicated through the basin during SAP implementation.

Likewise, the economic sustainability looks very promising but may have long-term uncertainties which will only be proven through a SAP implementation process. The E flow assessment (of two complete seasons) has provided some very valuable data and information (and this has been substantiated by the ORASECOM Technical Task Team members from South Africa and Namibia) which will assist in the design of the new dam in the downstream and to develop its operations and management procedures that will take into account the ecosystem health and integrity of the basin. It is certainly to be hoped and expected that the SAP implementation (which focuses primarily on the environmental aspects of the IWRM Plan) will also have positive impacts on environmental sustainability of the basin.

Evaluation Assessment of Sustainability and Replicability

The Project will leave behind a strong foundation for replication as well as long term sustainability as long as there can be a fairly smooth transition into a SAP implementation phase alongside overall implementation of the IWRM Programme. Specific areas such as monitoring at the scientific and socioeconomic level and maintenance of the website and its information system are fundamental to such sustainability. ORASECOM and its Secretariat need to make plans immediately to take responsibility for these areas and to ensure continuity.

OVERALL: HIGHLY SATISFACTORY

Review of Mid-term Evaluation and Responses

The following Table compares the recommendations from the Mid-Term Review with responses and an assessment at Terminal Evaluation

Table 10: Review of Mid-term Evaluation and Responses

Recommendations from Mid-Term Review	Evidence of follow-up at Terminal Evaluation
Project should provide draft NAPs/SAP by April 2013 and for this to be accepted at the subsequent PSC as the basis of a 6 month project extension	Delayed until late 2013. Project extension went ahead anyway with the hope to secure SAP endorsement in 2014.
The Project should improve the functionality of the PSC as a decision making body by ensuring that there is adequate presentation and discussions of project management related issues (budgets, workplans, etc.) and the decisions made, are clearly presented in the minutes of the meetings.	There was some improvement following the MTR but not substantial
The Project should formally confirm the budget changes proposed in May 2012 with all key stakeholders ensuring that the changes are acceptable within the GEF expectations of no impacts on outcomes or goals of the project.	No evident record of this formal confirmation seems to have been captured
The Project should ensure that quarterly reports are prepared comparing achievements of actual versus planned (from previous reports) results, highlighting any slippages and identifying realistic means to bring the delivery back on-target.	Quarterly reports were of good quality and addressed the appropriate issues but still did not have measurable achievements and avoided addressing some issues that were clearly of concern such as TDA delays
UNDP should investigate means to ensure feedback is provided to all reports and there is some auditable mechanism to demonstrate that these reports (provided for oversight) are taken account of and approved.	Still not a requirement from Country Offices
With the expected appointment of a Technical Officer (who should assume responsibility for drafting ToRs and approval of reports, for example) the Project Manager must ensure that his time is appropriately utilised on critical issues (mainly associated with NAPs/SAP preparation and subsequent endorsement) with a focus on ensuring the delivery of the overall project.	Following the resignation of the Science Officer, a Technical Officer was appointed
Further work needs to be undertaken to estimate national in-kind contributions. The PCU should identify simple means to assess the level of national contributions to the project	Still problems within the project regarding assessment of national in-kind contributions
The UNDP/GEF Project Manager should request the ORASECOM Executive Secretary to seek urgent assistance from the ORASECOM Council members to facilitate the NAP development and to prepare relevant ministers and ministries to the forthcoming SAP and the need for government endorsement. This preparation will greatly aid the UNDP/GEF Project in its delivery of these key outputs and are essential elements leading up to a potential future GEF assisted programme aimed at SAP implementation.	NAPs were developed with strong support from ORASECOM. Although preparation of Ministers and ministries has taken place rather 'late in the day' as a result of delays in SAP development, strong ownership in the SAP and its endorsement process demonstrated by the ORASECOM and its member states resulted in the Ministerial endorsement of SAP in August 2014.
Concerns raised about the level of engagement by the project with stakeholders in the TDA process must be addressed in the finalisation of the TDA (CCA workshops) and the launch of the NAPs/SAP forums. It is essential that the NAPs/SAP (and the supporting TDA) is considered to be a key national and regional product with appropriate ownership by stakeholders. Failure to achieve this ownership will make endorsement a serious challenge.	Some improvement at CCA stage. Substantial improvement during NAP and SAP preparation. There does appear to be strong ownership among stakeholders

Through the national stakeholder workshops for the NAPs it will be important to ensure that a wide stakeholder involvement is considered making use of inter-ministerial and intersectoral groups and that there is sufficient basin-wide engagement to effectively finalise the SAP and aid the approval process.	Evidence of wide stakeholder involvement
The Project should seek UNDP CO assistance through the Resident Representatives to facilitate the political process of NAPs/SAP approval and government endorsement.	This should still happen but has not been facilitated to date by the lack of UNDP CO knowledge of project aims and delivery in at least 3 countries
Where a preliminary TDA exists it should be clearer that the gap filling should be conducted more in parallel with the 'technical' elements of the SAP (Vision, quality objectives, management interventions drafting). In general GEF should consider further encouraging projects to begin developing the SAP (and associated NAPs) following the CCA and prioritisation of the transboundary issues. This would allow more time/resources for the difficult (and time-consuming) formal national endorsement process. More guidance needed for PCUs (by IA/EA) on emphasis to be place on TDA and SAP.	This is now a general recommendation to all IW projects

The over-riding sense from this is that there was insufficient effort made by the Project to rectify the faults and issues identified by the Mid-Term Review or to act on its recommendations. The Ministerial endorsement of SAP has been nonetheless successfully secured in 2014 due largely to the strong ownership demonstrated by the ORASECOM and its member states on the SAP and NAP documents as well as the SAP endorsement process, fully utilizing the existing ORASECOM institutional structure.

7. Main Conclusions, Ratings and Lessons

7.1 Conclusions

The Orange-Senqu River Project has received an overall score at terminal Evaluation of 6 (Highly Satisfactory). There is no doubt in the Evaluator's mind that this project has achieved very significant and substantial delivery within quite a number of difficult constraints, not least of which being both available time and resources. And it has achieved the ministerial endorsement of SAP, the ultimate outcome of a TDA-SAP foundation phase project.

So it is accurate to conclude that this TDA-SAP Development Project has delivered valuable products despite some inherent problems and constraints. In fact, in view of the hurdles and the delays that have occurred, it is to be commended that the primary objectives have been achieved and that a strong sense of ownership has been fostered within the countries at a number of levels.

It is undoubtedly regrettable that a well-conceived and high-quality project like this (in terms of both product and delivery) was marred by unfortunate staffing issues. It is often difficult to find a good balance in relation to management and technical skills and often it is advisable to separate these abilities (and the associated staff posts) and allow each skill-set to perform separately and more effectively. Certainly, there was a strong overall sense from most of the stakeholders that what had been needed was more balance between the scientific/technical effort and activities and the focus on management requirements and policy reforms. Nevertheless, despite these managerial and staffing challenges and constraints, the project has undoubtedly delivered a very worthwhile end-product which can be expanded and replicated most valuably. The issues and concerns regarding staffing and project execution should be taken into account as part of lessons learned but, in the Evaluator's opinion, should not detract from the overall achievement of the Project which is an excellent TDA process, effective demonstrations of strategic management processes and the endorsement of a very comprehensive and action-orientated Strategic Action Programme.

It was generally agreed by nearly all stakeholders interviewed that the TDA was far too drawn out and long-winded. Some of the lead contributors seemed to be unable or unwilling to finalise and complete their delivery on time. This has been probably the single largest fault within the project and its objectives and outcomes. Despite this the Project has managed to make good on its main targets of TDA, SAP and NAPs. Furthermore, there is no doubt that the technical product from the project is both of high quality and quantitatively beyond expectations. The TDA Process has delivered a very valuable document despite the issues with delays. This should be seen as a living document that needs updating regularly (5-10 years)

The SAP is an equally valuable set of guidelines and proposed interventions that address the priority concerns identified through the TDA and with which ORASECOM and other partners can now plan the way forward, using this SAP as the major environmental component of an overall IWRM. A timely SAP endorsement at the ministerial level will strengthen its strategic importance of the document itself and of its implementation in the near future to achieve the sustainable resources management in the Orange-Senqu River basin. However, notwithstanding the ultimate and commendable delivery of the SAP effectively on time, the project should have planned a parallel SAP development process alongside the TDA once agreement had been reached on the priority issues. This is a valuable lesson which could have impacted on the final delivery of the project if it had not been for the political commitment and ownership that had been developed through the Commission and this should be a consideration in any future GEF International Waters projects.

The NAPs have been and equally important outcome from this project. The NAP process has received a lot of praise and support and it is clear that this process was very inclusive and detailed in terms of both stakeholders and rigour. In any consideration of follow-up activities, such as SAP implementation, they should be seen to be an integral part of the regional SAP process. As such, these two processes (regional SAP implementation and national implementation of the NAPs) should proceed in parallel and in close coordination. Any follow up UNDP GEF project needs to facilitate the implementation of the NAPs and SAP but needs to leverage lots of co-financing and clear government commitments to the NAP implementation.

The demonstration projects have left an important legacy in terms of best practices and lessons for environmental flow, irrigation, rangeland management, etc. However, it is important (now that ownership has been built) not to undermine expectations and to continue to find ways to support existing community partners as well as to replicate the best practices in other community areas. A more specific and detailed review of the demos (best lessons and practices for replication) as part of any SAP Implementation project preparation (PPG) process would be a very valuable exercise in supporting ORASECOM and its aims.

Furthermore, when considering any follow-up initiatives, there is a need for a clear understanding and a harmonised work-plan that allows all of the ICPs to take on the areas for which they have a 'comparative advantage' and track record. A carefully orchestrated and agreed 'road-map' would be essential with clearly defined responsibilities as well as funding.

7.2 Lessons Learned and Best Practices

- A. Most IW project focus too much time (and often funding) on the TDA process and leave too little time and resources for the development of the SAP. This creates a cascade of problems whereby:
 - i) There is then insufficient time to build political ownership of the SAP, leading to,
 - ii) Difficulties in getting formal endorsement of the SAP before project closure, leading to
 - iii) Large delays before a SAP implementation process can be confirmed and launched (during which time capacity, expertise and even ownership can be lost)
- B. This Project provided a classic example of how this problem can jeopardise and threaten the final deliver of objectives. Future projects should avoid this by ensuring a clear deadline for end of TDA process and beginning of SAP process with the understanding that the SAP development process can run in parallel with other Project activities as soon as the Causal Chain Analysis has been completed (by mid-project latest)
- C. However, despite this delay, the current Project managed to resolve the difficulties and constraints and to achieve SAP endorsement within the effective Project lifetime through the sterling effort of the Commission itself in collaboration with the Project Management. ORASECOM followed the correct protocols and procedures for endorsement of the SAP which, although a little time-consuming, ensured full ownership and final speedy endorsement through a joint Ministerial meeting.
- D. The demonstration projects have been extremely valuable at building ownership and delivering on-the-ground, practical results. This was only possible because they were guided and justified through a preliminary TDA process. In future projects, these need to evolve out of an early TDA process during the first half of a project and then run parallel with the NAP/SAP development

- E. The UNDP GEF Project was designed to support and strengthen ORASECOM (particularly its Secretariat) which had an important role to play in coordinating with other ICPs working on the IWRM and water basin issues. In future similar project design the relationship and reporting process between such two entities should be clearly documented in the Project Document and captured in the Project Manager's Terms of Reference.
- F. UNDP GEF monitoring processes and communications strategies tend to focus on interactions between and external to the PCU. There is also an important need to identify and ensure an effective staff interaction (through regular staff meetings, briefings and involvement in quarterly reports and the PIR process). It is not sufficient to 'assume' this would be an automatic management skill or understanding.

8. Recommendations

GEF should consider the Orange-Senqu River Project to have been a valuable and productive investment within its International Waters portfolio and for a number of countries that are in dire need of such interventions and assistance. Despite some obvious problems in project management and project timing, the project has delivered a very high quality TDA, a large and impressive quantity of educational and awareness raising materials, some very comprehensive and workable National Action Plans, and a high quality SAP with some clear areas of priority intervention within the river basin that will greatly enhance IWRM at the environmental level. SAP has been endorsed at the ministerial level during the ORASECOM Conference of Ministers held on 7 August 2014. Accompanying NAPs were all adopted at the country level.

In view of this good delivery it would make absolute sense now, having confirmed ORASECOM and country-level agreement, for GEF to build on this investment and the obvious strong political will and community support and to move now toward implementation of the aims of the SAP and its Project Concept notes as well as supporting the rollout and implementation of the country National Action Plans.

To this effect, the Terminal Evaluation makes the following recommendations:

- A. The Evaluation recommends that UNDP should collaborate with ORASECOM to identify/confirm the interests of the countries in seeking further GEF support for a SAP implementation project to follow this successful TDA-SAP/NAP process. If confirmed, this should be agreed and submitted as early as possible within the GEF 6 funding window.
- B. In order for any further initiative of this nature to move ahead, the role and support of the ORASECOM and its Secretariat is paramount as is the mutual cooperation and coordination with other funding agencies (the International Coordinating Partners) to ensure complementary efforts and best use of 'comparative advantage'.
- C. As a natural evolutionary process from the project and its outcome of Strengthening ORASECOM, the Commission supported by its Secretariat should be considered as a possible execution modality for the follow-up GEF-financed project supporting the SAP implementation.
- D. This would also provide a clear mechanism for close coordination between the IWRM process and SAP Implementation (as the environmental component of such an IWRM Plan)

- E. Consideration should be given to sustaining the technical-level working groups that have been created and evolved through the TDA-NAP-SAP process as formal advisory bodies to the National Development Process and to ORASECOM and SAP Implementation at the regional level.
 - F. ORASECOM should take ownership of the outputs and replicability of the demonstration projects and oversee formal documentation of the results and lessons that can then guide further activities throughout the basin.
 - G. There needs to be a stronger emphasis on cross-sectoral interaction and partnership. Currently ORASECOM is only an advisory body to primarily the water ministries. SAP implementation will need to ensure greater involvement of other government stakeholders such as environment, agriculture, tourism and energy.
 - H. In this context, it is important during SAP implementation to include industry and the private sector as partners. Major players (e.g. SASOL and Eskom) need to be engaged into the SAP implementation process and activities to assist in reducing pressure on the river basin as an ecosystem as well as a 'service provider' to farmers, communities, etc.
 - I. More focus needs to go toward innovative measures to ease pressure on the Orange-Senqu River that can avoid further stress. Such measures may not always need to be 'direct'. Indirect measures that can reduce water needs or reduce interference or impact on environmental flow are also important. Examples of this could, again, involve closer partnerships with industry to demonstrate how wastage or over-use of water resources in their production cycles amounts to a 'hidden factory'.
-

Annexes:

- 1. Terms of Reference
- 2. Schedule/Itinerary
- 3. Stakeholders consulted
- 4. Questionnaires
- 5. List of Documents reviewed
- 6. Evaluation Consultant Agreement Form

ANNEX 1. TERMS OF REFERENCE FOR EVALUATOR

TERMS OF REFERENCE (INDIVIDUAL CONTRACTOR AGREEMENT)

TITLE: Terminal Evaluator

PROJECT TITLE: Development and adoption of a Strategic Action Program for balancing water uses and sustainable natural resource management in the Orange-Senqu River transboundary basin (ORASECOM Project)

DUTY STATION: Home-based with missions to the participating countries

SECTION/UNIT: GPSO, IWC

CONTRACT/LEVEL: International ICA, Level 4

DURATION: 18 April through 19 May 2014

SUPERVISOR: UNDP-GEF Regional Technical Adviser

INTRODUCTION

In accordance with UNDP and GEF M&E policies and procedures, all full and medium-sized UNDP support GEF financed projects are required to undergo a terminal evaluation upon completion of implementation. These terms of reference (TOR) sets out the expectations for a Terminal Evaluation (TE) of the UNDP-GEF project titled, Development and adoption of a Strategic Action Program for balancing water uses and sustainable natural resource management in the Orange-Senqu river transboundary basin (*ORASECOM Project*) (PIMS: 3243).

The essentials of the project to be evaluated are as follows:

PROJECT SUMMARY TABLE

Project Title:	Development and adoption of a Strategic Action Program for balancing water uses and sustainable natural resource management in the Orange-Senqu river transboundary basin (<i>ORASECOM Project</i>)			
GEF Project ID:	2701		<u>at endorsement</u> <u>(Million US\$)</u>	<u>at completion</u> <u>(Million US\$)</u>
UNDP Project ID:	56936 (ZAF10)	GEF financing:	6,300,000	6,300,000
Country:	Botswana, Lesotho, Namibia, South Africa	IA/EA own:	300,000	300,000
Region:	Southern Africa	Government:	16,621,500	tbc
Focal Area:	International Waters	Other:		
		BMZ/ GtZ	3,864,000	3,864,000
		InWent	280,000	280,000
		French GEF	2,100,000	2,100,000
		EU	3,500,000	3,500,000
		DRFN	1,500,000	1,500,00

		CI	4,200,000	4,200,000
FA Objectives, (OP/SP):	Restoring and sustaining coastal and marine fish stocks and associated biological diversity	Total co-financing:	15,444,000	15,444,000
Executing Agency:	UNOPS	Total Project Cost:	38,665,500	38,665,500
Other Partners involved:	BMZ/ GtZ InWent French GEF European Union (EU) Desert Research Foundation of Namibia (DRFN) Conservation International (CI)	ProDoc Signature (date project began):		Sep 2009
		(Operational) Closing Date:	Proposed: 22 Sep 2013	Actual: 30 Jun 2014

PROJECT CONTEXT

The Orange-Senqu River Basin is one of the larger river basins in southern Africa. The river system is regulated by some 30 large dams and includes several larger inter- and intra-basin transfers. Extensive water utilisation for urban, industrial and agricultural purposes has significantly reduced natural flow, to the extent that the current flow reaching the river mouth is in the order of half of the natural flow.

Future river basin management in the Orange-Senqu River Basin has to balance these competing water uses, and deal with increasing rates of human-induced change and the mounting concerns about the causes and consequences of this change. Differences in legal frameworks, historical backgrounds and technical capabilities of the four riparian States Botswana, Lesotho, Namibia and South Africa add to the complexity.

Effective management of water and related resources will therefore have to be sensitive to the maintenance of vital ecosystems and become a negotiated integration process, which synthesizes the differing positions and conflicting interests of the riparian States, various sectors and populations.

The four riparian States are strongly committed to a joint, basin-wide approach to addressing threats to the shared water resources. This led to the Agreement on the Establishment of the Orange-Senqu River Commission in 2000 ("ORASECOM Agreement").

As a fairly young organisation, ORASECOM's mandate and governance arrangements are evolving. Consensus was reached among the riparian States that one of the primary mechanisms for ORASECOM's technical advice will be the development of a basin-wide Integrated Water Resources Management (IWRM) Plan. While the scope of the IWRM Plan and the process of its development remain to be further clarified, the perspective emerges that the IWRM Plan shall provide the cooperation framework for the management and development of water and related resources, focusing firstly on transboundary issues. However, the riparian States also recognise that some actions may arise from shorter term or more narrowly focused studies.

The Orange-Senqu River Basin Environment Programme (also the ORASECOM Programme), agreed at the ORASECOM Council Meeting in April 2007, brought the various ICP supporting ORASECOM under one umbrella. The Programme includes six thematic areas:

- Institutional and organisational strengthening;
- Capacity building on shared watercourse management;
- Information System;
- Communication and awareness building;
- Transboundary projects and studies; and

- Conservation and environmental strategies and policies.

Within these thematic areas the Executive Secretary assigned the following areas of focus to ICP projects (Memo of Secretariat, dated 4 Jul 2008):

- French GEF support (completed in 2009): Support to ORASECOM institutional development, scientific research on the Basin's hydrology and environment, and on key drivers to integrated water resources management and development;
- German, UK and Australian support through GIZ (phase 2 completed in 2011, phase 3 in start-up): Included work on the Orange-Senqu hydrology, hydrological modelling and a decision support system, water quality monitoring, and geospatial databases, ORASECOM website, Orange-Senqu River Awareness Kit;
- EU support through SADC (completed in 2011, no follow on envisaged): support to institutional strengthening and further institutional development of ORASECOM; and
- UNDP-GEF (2010 to 2013): Transboundary Diagnostic Analysis, Strategic Action Programme, research and demonstration projects.

PROJECT BRIEF

During preparation of the UNDP-GEF funded project a preliminary Transboundary Diagnostic Analysis (TDA) of the basin was developed. ORASECOM adopted this document in April 2008. The preliminary TDA charted the main environmental threats to the basin and ascertained their root causes.

The four year ORASECOM Project started in December 2009. The Project finalised the TDA by addressing a number of knowledge gaps. The final TDA has served as the scientific basis for the development of National Action Plans (NAPs) four each of the four riparian States and a related basin-wide Strategic Action Programme (SAP). The NAPs and the SAP were developed through participatory processes at the national and regional levels.

In addition, the Project has been implementing four research and demonstration projects:

- A research project on environmental flows, covering methodological issues and setting environmental flow requirements for the non-perennial Fish River catchment (in Namibia), as well as the mouth of the Orange-Senqu River (shared by Namibia and South Africa);
- A demonstration project on water demand and quality management in the irrigation sector, cooperating with the Noordoewer-Vioolsdrift Joint Irrigation Authority (Namibia and South Africa) as well as commercial farmers in the perimeter; and
- Two demonstration projects on community-based rangeland management, in Botswana and Lesotho.

The logical framework of the Project is elaborated in the Project Document with more information on project goal, objectives, expected outcomes and indicators appearing also in the Inception Report, quarterly progress reports and the Annual Work Plans.

PROJECT EXECUTION AND MANAGEMENT

The UNDP-GEF ORASECOM Project is executed by the United Nations Office of Project Services (UNOPS), through its International Waters Cluster, in accordance with UNDP and UNOPS operational and financial guidelines and procedures. UNOPS is accountable to UNDP for the delivery of agreed outputs as per agreed project work plans, for financial management, and for ensuring cost-effectiveness.

At policy and strategic level the project is guided by a Project Steering Committee (PSC) which meets annually to monitor progress in Project implementation, provide strategic and policy guidance, and review and approve work plans and budgets. PSC meetings are chaired by the national representative in the country hosting the meeting. The PSC retains the authority to amend its membership as it deems necessary.

A Project Coordination Unit (PCU), which is responsible for day-to-day management of the project implementation, is located at the offices of the ORASECOM Secretariat in Centurion, South Africa.

OBJECTIVE AND SCOPE

The project was designed to: *Develop and seek adoption of a Strategic Action Programme for balancing water uses and sustainable natural resources management in the Orange-Senqu River Basin.*

The TE will be conducted according to the guidance, rules and procedures established by UNDP and GEF as reflected in the UNDP Evaluation Guidance for GEF Financed Projects.

The objectives of the evaluation are to assess the achievement of project results, and to draw lessons that can both improve the sustainability of benefits from this project, and aid in the overall enhancement of UNDP programming.

EVALUATION APPROACH AND METHOD

An overall approach and method² for conducting project terminal evaluations of UNDP supported GEF financed projects have developed over time. The evaluator is expected to frame the evaluation effort using the criteria of relevance, effectiveness, efficiency, sustainability, and impact, as defined and explained in the UNDP Guidance for Conducting Terminal Evaluations of UNDP-supported, GEF-financed Projects. A set of questions covering each of these criteria have been drafted and are included with this TOR (*fill in Annex C*). The evaluator is expected to amend, complete and submit this matrix as part of an evaluation inception report, and shall include it as an annex to the final report.

The evaluation must provide evidence-based information that is credible, reliable and useful. The evaluator is expected to follow a participatory and consultative approach ensuring close engagement with government counterparts, in particular the GEF operational focal point, UNDP Country Office, project team, UNDP GEF Technical Adviser based in the region and key stakeholders. The evaluator is expected to conduct a field mission to the Project Coordination Unit (PCU) in Centurion, South Africa including visits to the riparian States Botswana, Lesotho and Namibia. Interviews will be held with the following organizations and individuals at a minimum: project staff based at the PCU and at above mentioned locations, the ORASECOM Secretariat staff and Commissioners, members of the PSC, International Cooperating Partners (ICPs), and other stakeholders as suggested at the inception meeting.

The evaluator will review all relevant sources of information, such as the project document, project reports – including Annual APR/PIR, project budget revisions, midterm review, progress reports, GEF focal area tracking tools, project files, national strategic and legal documents, and any other materials that the evaluator considers useful for this evidence-based assessment. A list of documents that the project team will provide to the evaluator for review is included in [Annex B](#) of this Terms of Reference.

EVALUATION CRITERIA & RATINGS

An assessment of project performance will be carried out, based against expectations set out in the Project Logical Framework/Results Framework (see [Annex A](#)), which provides performance and impact indicators for project implementation along with their corresponding means of verification. The evaluation will at a minimum cover the criteria of: relevance, effectiveness, efficiency, sustainability and impact. Ratings must be provided on the following performance criteria. The completed table must be included in the evaluation executive summary. The obligatory rating scales are included in [Annex D](#).

Evaluation Ratings:			
1. Monitoring and Evaluation	rating	2. IA & EA Execution	rating
M&E design at entry		Quality of UNDP Implementation	
M&E Plan Implementation		Quality of Execution - Executing Agency	

² For additional information on methods, see the [Handbook on Planning, Monitoring and Evaluating for Development Results](#), Chapter 7, pg. 163.

Overall quality of M&E		Overall quality of Implementation / Execution	
3. Assessment of Outcomes	rating	4. Sustainability	rating
Relevance		Financial resources:	
Effectiveness		Socio-political:	
Efficiency		Institutional framework and governance:	
Overall Project Outcome Rating		Environmental :	
		Overall likelihood of sustainability:	

PROJECT FINANCE / CO-FINANCE

The Evaluation will assess the key financial aspects of the project, including the extent of co-financing planned and realized. Project cost and funding data will be required, including annual expenditures. Variances between planned and actual expenditures will need to be assessed and explained. Results from recent financial audits, as available, should be taken into consideration. The evaluator(s) will receive assistance from the Country Office (CO) and Project Team to obtain financial data in order to complete the co-financing table below, which will be included in the terminal evaluation report.

Co-financing (type/ source)	UNDP own financing (mill. US\$)		Government (mill. US\$)		International Cooperating Partners (mill. US\$)		Totals (mill. US\$)	
	Planned	Actual	Planned	Actual	Planned	Actual	Planned	Actual
Grants:							-	-
BMZ/ GtZ					3.864	3.864	3.864	3.864
InWent					0.280	0.280	0.280	0.280
French GEF					2.100	2.100	2.100	2.100
EU					3.500	3.500	3.500	3.500
DRFN					1.500	1.500	1.500	1.500
CI					4.200	4.200	4.200	4.200
Loans/ Concessions:							-	-
• In-kind support	0.300	0.300	16.622	16.622			16.922	16.922
• Other							-	-
Totals (mill. US\$):	0.300	0.300	16.622	16.622	15.444	15.444	32.366	32.366

MAINSTREAMING

UNDP supported GEF financed projects are key components in UNDP country programming, as well as regional and global programmes. The evaluation will assess the extent to which the project was successfully mainstreamed with other UNDP priorities, including poverty alleviation, improved governance, the prevention and recovery from natural disasters, and gender.

IMPACT

The evaluators will assess the extent to which the project is achieving impacts or progressing towards the achievement of impacts. Key findings that should be brought out in the evaluations include whether

the project has demonstrated: a) verifiable improvements in ecological status, b) verifiable reductions in stress on ecological systems, and/or c) demonstrated progress towards these impact achievements.³

CONCLUSIONS, RECOMMENDATIONS & LESSONS

The evaluation report must include a chapter providing a set of **conclusions, recommendations** and **lessons**.

IMPLEMENTATION ARRANGEMENTS

The principal responsibility for managing this evaluation resides with the UNDP Regional Technical Adviser in Addis Ababa, Ethiopia. UNOPS will contract the evaluator and the project will cover all travel and DSA expenses directly. The project team will give full support to the consultant for the arrangement of local and regional travel, the provision of daily subsistence allowance (DSA), setting up meetings with stakeholders and arranging field visits to demonstration projects.

EVALUATION TIMEFRAME

The evaluation will be according to the following plan:

Activity		Completion Date
Preparation: Inception including desk review of essential project documents		18 Apr 2014
Evaluation Mission: National consultations in each country and final consultation with PSC members during the final PSC meeting. <i>See attached annex with tentative mission schedule.</i>		6 May 2014
Draft Evaluation Report		15 May 2014
Final Report		19 May 2014

EVALUATION DELIVERABLES

The evaluation team is expected to deliver the following:

Deliverable	Content	Timing	Responsibilities
Inception Report	Evaluator provides clarifications on timing and method	No later than 3 days before the evaluation mission.	Evaluator submits to the PCU, UNDP RTA, UNDP CO SA and UNOPS.
Presentation	Initial Findings	End of evaluation mission	Evaluator submits to PCU, UNDP RTA, UNDP CO SA and UNOPS.
Draft Final Report	Full report, (per annexed template) with annexes	Within 1.5 weeks of the evaluation mission	Evaluator submits to PCU, UNDP RTA, UNDP CO SA and UNOPS and PSC members and stakeholders that were consulted.
Final Report*	Revised report	Within 3 days of receiving PCU, ORASECOM, UNDP and UNOPS comments on draft	Evaluator submits to PCU, UNDP RTA, UNDP CO SA and UNOPS and PSC members and stakeholders that were consulted.

***When submitting the final evaluation report, the evaluator is required also to provide an 'audit trail', detailing how all received comments have (and have not) been addressed in the final evaluation report.**

³ A useful tool for gauging progress to impact is the Review of Outcomes to Impacts (ROTI) method developed by the GEF Evaluation Office: [ROTI Handbook 2009](#)

REQUIREMENTS

The evaluation will be conducted by one (1) international evaluator. The consultant shall have prior experience in evaluating similar projects. Experiences with GEF financed TDA/ SAP development projects are an advantage. The evaluator selected should not have participated in the project preparation and/or implementation and should not have conflict of interest with project related activities.

The consultant must present the following qualifications:

- Minimum 10 years of relevant professional experience is mandatory;
- Minimum of a Master degree in a relevant and appropriate field is mandatory;
- Previous experience with results - based monitoring and evaluation methodologies, particularly for International Waters project is mandatory;
- Knowledge of UNDP, GEF and the International Waters Portfolio;
- Technical knowledge in the targeted focal area(s);
- Fluency in English is mandatory while proficiency in Portuguese would be an advantage;

EVALUATOR ETHICS

Evaluation consultants will be held to the highest ethical standards and are required to sign a Code of Conduct (Annex E) upon acceptance of the assignment. UNDP evaluations are conducted in accordance with the principles outlined in the [UNEG 'Ethical Guidelines for Evaluations'](#)

PAYMENT MODALITIES AND SPECIFICATIONS

(this payment schedule is indicative, to be filled in by the PCU and UNDP GEF Technical Adviser based on their standard procurement procedures)

%	Milestone
20%	Upon submission of workplan
30%	Following submission and approval of the 1 st draft terminal evaluation report
50%	Following submission and approval (UNDP-CO and UNDP RTA) of the final terminal evaluation report

ANNEX 2: EVALUATION SCHEDULE AND ITINERARY

MAY 2014

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
				1	2	3
4	5	6	7	8	9	10
11	12 Travel to Jo'Burg Consultations in Johannesburg ORASECOM Secretariat	13 Consultations Johannesburg ORASECOM Secretariat	14 Travel to Maseru (Lesotho) and consultations. Drive to mount Moorosi	15 Visit demonstration site, Lesotho . Return to Johannesburg	16 Consultations with project consultants and UNOPS HQ staff, Centurion .	17 Travel to Gaborone
18 Identify information and data gaps following consultations	19 Meet with SADC Water Sector, Botswana	20 Travel to Demo Site, Botswana	21 Visit demo site and consultations	22 Travel back to Gaborone	23 Gaborone to Johannesburg to Port Elizabeth	24
25	26	27	28	29	30	31

June 2014

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
1 Fly to Johannesburg and Upington. Stay overnight Upington	2 Field visit to demo area. Stay two nights at Felix Unite Lodge	3 Field Visit continued Meetings with stakeholders, Noordoewer-Vioolsdrift	4 Early Drive to Windhoek, (About 7 hours) Namibia Stay at Hilton	5 Consultations with ORASECOM Council and TTT members Namibia. Stay at Hilton	6 Meet UNDP CO and any other stakeholders. Report writing afternoon Stay at Hilton	7 Fly to Jo'Burg and PE. Drive Grahamstown Home at 1600
8	9	10	11	12		14
15	16	17	18 Fly to Jo'Burg Meet with ORASECOM and UNDP	19 Presentation to PSC, Centurion	20 Debrief with UNDP RTA Return PE	21
22	23	24	25	26	27 Deadline for Draft Evaluation to be circulated	28
29	30	Final Comments to Evaluator by 11 th July		Final Evaluation Document by 15 th July		

ANNEX 3: STAKEHOLDERS CONSULTED

Project Coordination Unit

Nice Willemse	Project Manager at Closure
Jacqueline Sims	Administrative and Finance Associate
Zachel Koorszen	Project Associate

UNDP and UNDP GEF (Implementing Agency)

Akiko Yamamoto	Regional Technical Advisor, UNDP GEF
Peter Whalley	Mid-Term Reviewer
Anders Pedersen	Res. Coord. UN Country Office Botswana
Neil Boyer	Res. Rep. UNDP Country Office Namibia
Maria Mbengashe	UNDP Country Office South Africa
Walid Badawi	UNDP Country Office South Africa

UNOPS (Executing Agency)

Alex Ebhart
Katrin Lichtenberg
Peter Morling

ORASECOM Secretariat and Commissioners

Lenka Thamae	Executive Secretary, ORASECOM
Rapule Pule	
Tracey Molefi	ORASECOM Commissioner - Botswana

Demonstration Project – Lesotho

Bonang Mosiuoa	Field Officer from Serumula Development Association
Peter Nthathakane	Lesotho Water Commission
Nthapelisen Nthama	EIA Officer, Dept. of Environment
Approx. 40 individuals	Mount Moorosi Demonstration Site

Demonstration Project Botswana

Mr. Abraham Nehemia	Deputy Permanent Secretary, Water Affairs & Forestry
Maria Amakali	ORASECOM Tech Task Team Member (also sits on PSC)
Aune Amwaama	ORASECOM Communications Task Team
Abigail Engleton	Field Officer
Botsalu Thamaku	Water Development Manager/Water Affairs
Tefo Lobelo	International Waters Unit, Water Affairs
Felix Mongue	CEO, Kalahari Conservation Society
Mampane?	
Teofilus Nghitila	GEF Operational Focal Point
Vivienne	NAPS Consultant and Consultant on SADC IWRM
TAC Meeting in Tsabong	12 Various Individuals (Including Director) Tsabong Water Affairs
25 Various Individuals	Community Members from Khawa Demonstration who attended an Evaluation Meeting and Site Visit

Demonstration Project – Namibia-South Africa

8 individuals	Members of the Noordoewer and Vioolsdrift Joint Irrigation Authority
Francois du Plessis	Demonstration Field Consultant
Various Farmers	

Project 5th Steering Committee (in attendance)

Botswana

Mr. Thatayaone Dedede, Dept of Water Affairs.

Mr. Tefo Lobelo, Dept of Water Affairs.

Lesotho

Mr. Felix Malachamela, Lesotho Water Commission.

Mr. Peter Nthathakane, Lesotho Water Commission.

Namibia

Ms. Maria Amakali, Dept of Water Affairs

South Africa

Ms. Lindiwe Lusenga (Chair), Dept of Water Affairs.

ORASECOM Secretariat

Mr. Lenka Thamae

Mr. Rapule Pule

UNDP

Dr. Akiko Yamamoto

Mr. Walid Badawi

Ms. Maria Mbengashe

ORASECOM SAP Project

Mr. Nico E. Willemse

Ms. Zachel Koorzen

Ms. Jacqui Sim (Rapporteur)

Ms. Abigail Engleton

Consultants

Dr. David Vousden (Terminal Evaluator)

Prof. Henk Bouwman (NWU, POPs research)

Ms. Caitlin Swiegelaar (NWU, POPs research)

Ms. Delana Louw (E-flows research)

Ms. Lara van Niekerk (E-flows research)

Mr. Francois du Plessis (Irrigation project)

Scientific and Technical Consultants

Vivienne Barnes

Bennie Hasbroek

Henk Bouwman

Peter Pyke

Carole Roberts

Delana Louw

Daniel Malzbender

Design and Publications

Website developer (Water Information System)

Persistent Organic Pollutants Consultant

Ex-Water Affairs South Africa

Technical Advisor

Environmental Flow Specialist

SAP and NAP Development Consultant

International Cooperating Partners

Luise Zagst-Beetlestone

Thomas Schild

GIZ BW

GIS BW

ANNEX 4: QUESTIONNAIRE

Questionnaire for All Stakeholders	
GENERAL	
How long have you been involved in the Orange-Senqu River project?	
Please describe the nature of your involvement (specific activities)	
Who are your primary colleagues or counterparts with whom you have most actively been involved in this project?	
Do you have any advice for the next phase of the project? What role could or would you play if there is a second phase?	
RELEVANCE OF THE PROJECT DESIGN:	
<i>How does the project relate to the main objectives of the GEF focal area, and to the environment and development priorities at the local, regional and national levels?</i>	
How would you describe the Project Objectives as captured in the Project Document?	
Did the Project Objectives alter during the course of the Project?	
Was the Project concept in line with the development priorities, plans and expectations of the participating countries?	
How do the project objectives and purpose match your organisation's objectives?	
Was the Project relevant to community needs and environmental priorities?	
In broad overview, was the Project Document and its expected deliveries realistic within the time-frame and funding?	

PROJECT IMPLEMENTATION (Effectiveness):	
<i>To what extent have the expected outcomes and objectives of the project been achieved?</i>	
Were the project outcomes and objectives attained? Why or why not?	
Do you see any possible long-term changes, such as joint research, joint regional monitoring cooperation in capacity building, dialogue and data exchange as a result of the project?	
Have any valuable lessons been learned which should be captured for future projects and initiatives of this nature?	
PROJECT IMPLEMENTATION (Efficiency)	
<i>Efficiency concerns the relation between the result and means i.e. whether the process of transforming the means into results has been cost-effective. Was the project implemented efficiently, in-line with international and national norms and standards?</i>	
Do you think the financing that went into the project (GEF and co-financing) produced good value-for-money and a useful end-product?	
Were project funds well-managed? (provide details if appropriate)	
Was financial planning in terms of budgeting and planning for procurement and contracts efficient (lessons??)	
Has the project been effective in generating Co- financing and in-kind support? Is it likely to be continued?	
Do the Project's results match the expectations from the investment?	
Was there continuity in the Project implementation team throughout the Project or was there a lot of staff turnover (explain)?	
Are you aware of any financial, legal or other project implementation concerns with respect to this Project?	
If you were re-designing and running this Project again from	

the beginning, would you implement it differently and, if so, how?	
PROJECT IMPACT IN TERMS OF SUSTAINABILITY:	
Sustainability can be described as the degree to which the benefits produced by the project continue after the external assistance has come to an end. To what extent are there financial, institutional, social-economic, and/or environmental risks to sustaining long-term project results?	
Is the Orange-Senqu River effort continuing after the end of this phase of funding?	
Have the lessons learned from the Project been shared with other communities and other states in the region or the continent	
Have any of the project demonstration efforts been replicated (or are being planned to be replicated)?	
Are efforts underway to find new sources of funding to continue and expand the activities that were started under the Project	
Are there any financial risks that may affect/impact the sustainability of project outcomes?	
What is the likelihood of financial resources not being available after GEF and UNDP support ends?	
Is the SAP implementable with concrete next steps and long-term guidance?	
PROJECT IMPACT OVERALL:	
<i>Impact concerns whether there has been a change towards the achievement of the overall objective as a consequence of the achievement of the results and specific objectives. Both intended and unintended impacts are reviewed.</i>	
Explain how the project has had a catalytic or replication effect in the region or particular participating country or region. What changes have occurred as a result of this project: such as in regional communication, exchange, cohesiveness? What practical improvements have there been as a result?	

Do you see any enhancement of national capabilities, strengthening of institutions, more cooperation and coordination as a result of this project?	
Did the project contribute to the establishment of a long-term monitoring system?	
Is the monitoring system sustainable, that is, is it embedded in a proper institutional structure and does it have financing?	
What is your view of the extent to which project outcomes have been mainstreamed into national and local governance and management processes and structures?	
Are project outcomes contributing to national development plans and priorities?	
Have the governments of the participating countries approved policies or regulatory frameworks in line with the project's objectives?	
STAKEHOLDER PROCESSES	
How do you rate the project management in terms of efficiency, effectiveness, and communication with stakeholders? Can you identify any gaps or lessons learned? Were there public awareness and outreach efforts? And how effective was the project in attracting public attention?	
What is your view of the project's approach to partnership with the private sector, including co-financing from that sector? Do you see ways in which it could have been improved?	
Do you think there is country ownership, readiness for continuation, and stakeholder participation to drive continuation of the project?	
Explain how synergies with other regional or national projects/programs were incorporated in the design and/or implementation of the Project.	

Has cooperation with and involvement of NGOs been satisfactory? Any advice on how it could have been strengthened?	
Relevance of project and outcomes: do you think stakeholders in general consider the project and its outcomes of relevance for their human well-being?	
What would you suggest could have improved the outcomes or the continued implementation to achieve the end-goal? Do you know what the long-term objective is and do you agree with that goal?	
How do you judge or see the Monitoring and Evaluation process?	
Has there been sufficient dialogue with stakeholders? Has there been sufficient transparency? Any lessons learned?	
Do you think the important stakeholders see that it is in their interest that the benefits of the project continue to flow?	
How do you think the involvement of politicians, parliamentarians, and government officials can be strengthened or made more useful?	
ANY OTHER CONTRIBUTIONS	
Please add here any other comments which you might wish to make which are not covered by any of the previous questions	

Questions for GEF/UNDP, UNOPS, and PMCU stakeholders:

PREPARATION AND READINESS

Were the project's objectives and components clear, practicable, and feasible within its time frame?	
Were the capacities of the executing institution(s) and its counterparts properly considered when the project was designed?	
Were lessons from other relevant projects properly incorporated in project design?	
Were the partnership arrangements properly identified and roles and responsibilities negotiated prior to project approval?	
Were counterpart resources, enabling legislation, and adequate project management arrangements in place at project entry?	

FINANCIAL PLANNING

Did the project have the appropriate financial controls, including reporting and planning, that allowed management to make informed decisions regarding the budget and allowed for timely flow of funds?	
Was there due diligence in the management of funds and financial audits?	
Did promised co-financing materialize?	

GEF AGENCY (IA and EA) SUPERVISION AND BACKSTOPPING

Did Agency staff identify problems in a timely fashion and accurately estimate their seriousness?	
Did Agency staff provide quality support and advice to the project, approve modifications in time, and restructure the project when needed?	
Did the Agency provide the right staffing levels, continuity,	

skill mix, and frequency of field visits for the project?	
CO-FINANCING AND PROJECT OUTCOMES AND SUSTAINABILITY	
If there was a difference in the level of expected co-financing and the co-financing actually realised, what were the reasons for the variance?	
Did the extent of materialization of co-financing affect project outcomes and/or sustainability, and, if so, in what ways and through what causal linkages?	
Did the SAP materialize as expected and is it an adequate document to move forward to another phase of GEF funding?	
DELAYS AND PROJECT OUTCOMES AND SUSTAINABILITY	
If there were delays in project implementation and completion, what were the reasons?	
Did the delays affect project outcomes and/or sustainability, and, if so, in what ways and through what causal linkages?	
ANY OTHER CONTRIBUTIONS	
Please add here any other comments which you might wish to make which are not covered by any of the previous questions	

ANNEX 5: LIST OF DOCUMENT REVIEWED

- Official Project Document
- Project Inception Report
- Minutes from the Project Steering Committees (for project lifetime)
- Quarterly Reports (for project lifetime)
- Project Implementation Reviews (for project lifetime) and GEF Tracking Tools
- Preliminary Transboundary Diagnostic Analysis
- Final Transboundary Diagnostic Analysis
- Draft Strategic Action Programme
- Draft National Action Plans
- Mid-Term Review
- Pule's River Journey: An exploration of the Orange-Senqu River Basin for Children
- From Source to Sea: Interactions between the Orange–Senqu River Basin and the Benguela Current Large Marine Ecosystem
- Orange–Senqu River Basin Infrastructure Catalogue, 2nd edition
- POPs, PAHs and Elemental Levels in Sediment, Fish and Wild Bird Eggs in the Orange–Senqu River Basin
- Abundance and Scarcity: The Story of Water in the Orange–Senqu River Basin
- Various Scientific and Technical Reports A. from ORASECOM and WIS websites and B. as provided by UNDP PCU - see <http://undp.orasecom.org/resources-2/>
- Project Terminal Progress Report

As well as reviews of the ORASECOM Website and links to ICPS; the Water Information System; MiniSASS and Learning Box; and the UNDP Project website

ANNEX 6: EVALUATION CONSULTANT AGREEMENT FORM



ANNEX E: EVALUATION CONSULTANT CODE OF CONDUCT AND AGREEMENT FORM

Evaluators:

1. Must present information that is complete and fair in its assessment of strengths and weaknesses so that decisions or actions taken are well founded.
2. Must disclose the full set of evaluation findings along with information on their limitations and have this accessible to all affected by the evaluation with expressed legal rights to receive results.
3. Should protect the anonymity and confidentiality of individual informants. They should provide maximum notice, minimize demands on time, and respect people's right not to engage. Evaluators must respect people's right to provide information in confidence, and must ensure that sensitive information cannot be traced to its source. Evaluators are not expected to evaluate individuals, and must balance an evaluation of management functions with this general principle.
4. Sometimes uncover evidence of wrongdoing while conducting evaluations. Such cases must be reported discreetly to the appropriate investigative body. Evaluators should consult with other relevant oversight entities when there is any doubt about if and how issues should be reported.
5. Should be sensitive to beliefs, manners and customs and act with integrity and honesty in their relations with all stakeholders. In line with the UN Universal Declaration of Human Rights, evaluators must be sensitive to and address issues of discrimination and gender equality. They should avoid offending the dignity and self-respect of those persons with whom they come in contact in the course of the evaluation. Knowing that evaluation might negatively affect the interests of some stakeholders, evaluators should conduct the evaluation and communicate its purpose and results in a way that clearly respects the stakeholders' dignity and self-worth.
6. Are responsible for their performance and their product(s). They are responsible for the clear, accurate and fair written and/or oral presentation of study limitations, findings and recommendations.
7. Should reflect sound accounting procedures and be prudent in using the resources of the evaluation.

Evaluation Consultant Agreement Form³


Agreement to abide by the Code of Conduct for Evaluation in the UN System

Name of Consultant: David Vousden

Name of Consultancy Organization (where relevant): _____

I confirm that I have received and understood and will abide by the United Nations Code of Conduct for Evaluation.

Signed at Grahamstown on 16/04/2014

Signature: 

³ www.unevaluation.org/unegcodeofconduct