

**Terminal Evaluation of the UNEP/GEF project**

**Addressing Transboundary Concerns in the Volta River Basin and its  
Downstream Coastal Area**

**TERMINAL EVALUATION REPORT- DRAFT ONE**

**Sherry Heileman and Sylvana R. King**

March 2016

ACRONYMS AND ABBREVIATIONS .....	4
PROJECT IDENTIFICATION TABLE .....	6
EXECUTIVE SUMMARY .....	7
I. INTRODUCTION .....	13
II. THE EVALUATION .....	13
III. THE PROJECT .....	15
A. Context.....	15
B. Objectives and components .....	16
C. Target areas and groups .....	16
D. Milestones in design, implementation, and completion.....	17
E. Implementation arrangements and partners .....	17
F. Project financing .....	18
G. Project partners and roles, benefits .....	19
H. Changes in design during implementation.....	20
I. Reconstructed Theory of Change.....	21
IV. EVALUATION FINDINGS .....	22
A. Strategic Relevance.....	22
B. Achievement of Outputs and Activities .....	23
C. Effectiveness: Attainment of project objectives and results .....	32
D. Sustainability and replication .....	38
E. Efficiency .....	42
F. Factors Affecting Performance .....	44
Preparation and Readiness .....	44
Implementation approach and adaptive management.....	45
Stakeholder Participation and Public Awareness .....	49
Country Ownership and Driven-ness.....	51

Financial Planning and Management.....	52
UNEP Supervision and Backstopping .....	54
Monitoring and Evaluation .....	55
G. Complementarity with UNEP strategies and programmes .....	56
H. Gender .....	57
I. South-South Cooperation .....	57
V. CONCLUSIONS AND RECOMMENDATIONS.....	58
A. Conclusions .....	58
B. Lessons learned.....	61
C. Recommendations .....	63
ANNEXES .....	64
Annex 1. Terms of references for the GEF Volta project terminal evaluation .....	64
Annex 2. Logical framework of the GEF Volta Project .....	65
Annex 3. Assessment of project design .....	68
Annex 4. Documents consulted for the terminal evaluation.....	78
Annex 5. Persons interviewed for the terminal evaluation .....	79
Annex 6. Evaluation schedule- Country visits and interviews .....	82
Annex 7. Expenditure of GEF funds and co-finance contributions .....	83
Annex 8: Summary of achievement of expected outputs and outcomes .....	85
Annex 9a.Theory of Change for the Volta Project .....	92
Annex 9b.Results and ratings of Review of Outcome to Impact (ROtI).....	93
Annex 10. The evaluation consultants.....	94

## ACRONYMS AND ABBREVIATIONS

AfDB	African Development Bank
APNP-VRB	Action Plan for the National Part of the VRB
BSP	Bali Strategic Plan
CEO	Chief Executive Officer
CIWA	Cooperation in International Waters in Africa
CTA	Chief Technical Officer
DEPI	Division of Environmental Policy Implementation (UNEP)
DEWA	Division of Early Warning and Assessment (UNEP)
DGEF	Division of GEF Coordination (UNEP)
ECOWAS	Economic Community of West African States
EQO	Environmental Quality Objective
EU	European Union
FFEM	Fonds Français pour l'Environnement Mondial (French GEF)
FMO	Fund Management Officer
GEF	Global Environment Facility
GW	Global Water Initiative
GWP-WA	Global Water Partnership-West Africa
HYCOS	Hydrological Cycle Observation System
ICARM	Integrated Coastal Area and River Basin Management
ICZM	Integrated Coastal Zone Management
IRBM	Integrated River Basin Management
IUCN	International Union for Conservation of Nature
IW	International Waters
IWRM	Integrated Water Resources Management
KITE	Kumasi Institute of Technology and Environment
M&E	Monitoring and evaluation
MCA	Millennium Challenge Account
MOA	Memorandum of Agreement
MTE	Midterm Evaluation
NEPAD	New Partnership for Africa's Development
NFP	National Focal Point
NGO	Non-governmental Organisation
NIC	National Implementation Committee
NOFP	National Operational Focal Point
NPC	National Project Coordinator
PAGEV	Projet d'Amélioration de la Gouvernance de l'Eau dans le Bassin de la Volta (IUCN)
PAPADEV	Partners in Participatory Development
PDF	Project Development Funds (Type A & B)
PIR	Project Implementation Report
PMU	Project Management Unit
PSC	Project Steering Committee
ROtI	Review of Outcomes to Impact
RPC	Regional Project Coordinator
SAP	Strategic Action Programme
SIAAP	Syndicat Interdépartemental pour l'Assainissement de l'Agglomération de Paris
TDA	Transboundary Diagnostic Analysis

TE	Terminal Evaluation
TM	Task Manager
TOC	Theory of Change
TOR	Terms of Reference
TTF	Technical Task Force
UDC	UNEP DHI Centre for Water and Environment
UNEP	United Nations Environment Programme
UNOPS	United Nations Office for Project Services
VBA	Volta Basin Authority
VB-ISS	Volta Basin Information Sharing System
VBO	Volta Basin Observatory
VRB	Volta River Basin
VSIP	Volta River Basin SAP Implementation Project
WRC	Water Resources Commission (Ghana)
WRCU	Water Resources Coordination Unit (ECOWAS)
WSSD	World Summit on Sustainable Development

# PROJECT IDENTIFICATION TABLE

GEF project ID:	1111	IMIS number:	GFL/2328-2731-4957
Focal Area(s):	International Waters	GEF OP #:	9 – Integrated land and water multiple focal area
GEF Strategic Priority/Objective:	IW-2	GEF approval date:	7 August 2006
Approval date:	22 May 2007	First Disbursement:	31 July 2007
Actual start date:	31 July 2007	Planned duration:	48 months
Intended completion date:	July 2011	Actual or Expected completion date:	December 2013
Project Type:	FSP	GEF Allocation:	\$5,347,380
PDF GEF cost:	\$ 497,500	PDF co-financing:	\$151,000
Expected FSP Co-financing:	\$ 10,871,231	Total Cost:	\$16,867,111
Mid-term review/eval. (planned date):	January 2011	Terminal Evaluation (actual date):	June 2014
Mid-term review/eval. (actual date):	July 2011	No. of revisions:	3
Date of last Steering Committee meeting:	20 November 2013	Date of last Revision*:	27 June 2013
Disbursement as of 30 June 2012 (UNEP):	US\$ 5,129,265	Date of financial closure:	
Date of Completion:		Actual expenditures reported as of 31 July 2014	US\$5,309,566
Total co-financing realized as of 30 June 2013:	US\$6,125,873	Actual expenditures entered in IMIS as of 30 June 2013:	US\$4,191,364
Leveraged financing	Nil		

## **EXECUTIVE SUMMARY**

### **Introduction**

1. The Global Environment Facility (GEF) full-sized project “Addressing Transboundary Concerns in the Volta River Basin and its Downstream Coastal Area” was designed to strengthen the ability of the Volta River Basin (VRB) countries to sustainably plan and manage the basin and its downstream coastal area. The major expected outputs were a regional Transboundary Diagnostic Analysis (TDA) identifying priority transboundary issues in basin, a Strategic Action Programme (SAP) to address the priority issues, and demonstration of national and regional measures to combat transboundary environmental degradation in the basin. The project’s total duration including two extensions was six years from January 2008 to December 2014.
2. The implementing agency was the United Nations Environment Programme (UNEP) and the executing agency the United Nations Office for Project Services (UNOPS) Kenya Operations Centre. UNOPS established a Project Management Unit (PMU), which was hosted by the Ghana Water Resource Commission in Accra. Major partners and beneficiaries were the Governments of the six riparian countries: Benin, Burkina Faso, Côte d’Ivoire, Ghana, Mali, and Togo. Other key partners were the Volta Basin Authority (VBA) and the UNEP-DHI Centre on Water and Environment (UDC), which provided technical support during project design and implementation.
3. GEF financing for the project was US\$5,347,380 and revised pledged co-financing from the six countries was US\$3,424,739. Expenditure on the GEF financing as of July 2014 was US\$5,309,566. Total co-financing realized as at 31 December 2013 from the Volta Basin countries amounted to US\$2,717,799, representing 79% of the amount pledged.
4. The midterm evaluation (MTE), which was conducted in 2011, identified several issues that were seriously impacting the project’s progress. It expressed major concerns about whether the project was on track to deliver its objectives within its current timeframe. An overall MTE rating of Moderately Unsatisfactory was assigned to the project and a number of recommendations made to address the key concerns. The terminal evaluation of the project was initiated in April 2015 by the UNEP Evaluation Office, which contracted two independent consultants for this exercise. The key questions for this evaluation focused on whether the project achieved its three specific objectives and the factors affecting its performance.

### **Findings and Conclusions**

5. In the period preceding the MTE, the GEF Volta project encountered challenging circumstances that were largely outside its control. Among these was the need for extensive redesign of the project during the inception phase as a result of the creation of the VBA and the political crisis in Côte d’Ivoire. These and other problems resulted in operational delays and risk to the project especially during the first three years. Implementation of the MTE recommendations, including granting a no-cost extension, and several other measures taken by UNEP, UNOPS, and the PMU turned the project around from its unsatisfactory performance in the period prior to the MTE.
6. The project has achieved all its expected outputs, outcomes, and objectives, enhancing stakeholders’ capacity and leaving a valuable legacy for the effective management of the VRB and its downstream coastal areas. It carried out a diverse range of activities including technical and thematic studies, training and capacity building in a number of areas including the TDA/SAP process and integrated water resources management (IWRM), awareness raising, stakeholder engagement, supporting development of a regional information sharing platform, and strengthening regional processes for management of the basin.

7. A major achievement of the GEF Volta project was the updating and validation by all the countries of the regional TDA, which forms the scientific basis for the SAP. The project also successfully demonstrated measures to address specific problems that were identified as priority in selected local communities (lack of wastewater treatment and its impacts on the environment and human health, absence of early warning system for floods in flood-prone areas, and deforestation and degradation of the river bank in a number of hotspots). The demonstrated measures can be adapted and replicated in other areas of the basin.
8. The culmination of the project's activities was the completion of the SAP and its endorsement by both the water and environment ministers in all the six countries. This was a remarkable achievement, for which the project team and the VBA are applauded. Endorsement of the SAP also demonstrates a significant level of ownership of the project and its outcomes by the VRB countries. SAP endorsement by the water ministers also has important implications for sustainability of the project outcomes and management of the VRB since the mandate for water resources management lies with the water ministries in all the countries. The project also left in place a mechanism for SAP implementation by assigning this responsibility to the VBA. In order to effectively implement the SAP, however, the VBA will need to be considerably strengthened.
9. Several factors contributed to the successful completion of the project: establishing strategic partnerships with a network of partners at local, national, and regional levels; using the Volta Basin Convention and the VBA to facilitate project implementation and gain SAP endorsement; dovetailing the TDA/SAP process; adopting a highly participative approach to project execution; major efforts in awareness-raising among stakeholders; and demonstrating concrete benefits to local communities and the environment from management measures. This was all underpinned by the solution-oriented and adaptive management approach of the PMU and the implementation agency, for which they are highly commended.
10. There are good prospects for sustainability of the project outcomes and achievement of its long term impact through SAP implementation within the basin. While financial, socio-political, and institutional factors are conducive to sustaining project outcomes, several factors can undermine sustainability such as climate change impacts on the Volta Basin water resources, certain social and cultural practices in the countries, and differences in national regulatory frameworks.
11. A number of challenges affected project progress and performance. Limited technical support to the PMU compounded by factors such poor performance of some of the consultants meant that the RPC and UNEP Task Manager had to devote a considerable amount of time to technical tasks to ensure that the quality of the key technical outputs (TDA and SAP) was not compromised. While the performance of the PMU was satisfactory, some problems were encountered because of limited project management capacity, which affected project implementation and required intervention by UNOPS. At the national level implementation was affected by several factors including difficulties by the governments to mobilize cash co-finance, which affected remuneration of national project personnel leading to low motivation and poor performance among some individuals.
12. Execution of the demonstration projects was hampered by several factors including late start, change in focus and partnership arrangements, and social and cultural practices (e.g., transhumance, burning of vegetation in hunting and agriculture). Further, all three bi-national demonstration projects were impacted by circumstances that affected implementation in one of the partner countries, undermining achievement of the original aim to encourage bi-lateral collaboration, as seen, for example, in the effect of the political crisis in Côte d'Ivoire on bilateral collaboration with Ghana within the framework of demonstration project 3.
13. Based on the terminal evaluation findings, the TE rating for the GEF Volta project is **Satisfactory**. A summary assessment and ratings by evaluation criteria are presented in the following table.



Highly Satisfactory (HS); Satisfactory (S); Moderately Satisfactory (MS); Moderately Unsatisfactory (MU); Unsatisfactory (U); Highly Unsatisfactory (HU).

Sustainability is rated from Highly Likely (HL) down to Highly Unlikely (HU).

Criteria	Summary Assessment	TE Rating	MTE Rating
<b>A. Strategic relevance</b>	The project is highly relevant to the challenges faced by the VRB countries regarding issues such as limited capacity, water scarcity, persistent poverty, climate change, and ecosystem degradation in the Volta Basin. It is also consistent with UNEP's mandate and cross-cutting priorities and objectives (Medium Term Strategy 2010-2013), and with GEF Operational Program (OP) 9 and with IW Strategic Priorities in support of the WSSD outcomes.	<b>HS</b>	<b>HS</b>
<b>B. Achievement of outputs</b>	All expected outputs were satisfactorily achieved, in particular the TDA and SAP, which were the 'raison d'être' of the project.	<b>S</b>	<b>MU</b>
<b>C. Effectiveness: Attainment of project objectives and results</b>	The project's intended outcomes were achieved, culminating in the overwhelming endorsement of the SAP by both water and environment ministers of all the six countries. The aim of the demonstration projects to promote bilateral collaboration between the countries was not completely achieved although valuable lessons and experiences for replication were produced.	<b>S</b>	<b>MU</b>
<b>D. Sustainability and replication</b>	The overall rating on this criterion is based on the weakest rating for sub-criteria	<b>L</b>	<b>MU</b>
Financial factors	There are good prospects for support for SAP implementation through uptake by countries of SAP elements in their water resources management plans as well as from bilateral and multilateral donors, among others.	<b>HL</b>	<b>ML</b>
Socio-political factors	Validation of the TDA by the countries and endorsement of the SAP by both the water and environment ministries of all six basin countries, as well as ratification of the VBA Convention indicates good prospects for political sustainability. Threats to socio-political sustainability include socio-political upheavals and terrorist activities to which this region can be prone, and certain cultural practices.	<b>HL</b>	<b>MU</b>
Institutional factors	The Volta region possesses a strong institutional foundation for sustaining project outcomes, including environment and water resources agencies at the national level and the VBA and other institutions at the regional level.	<b>L</b>	<b>L</b>
Environmental factors	Achievement of the SAP EQOs will ensure environmental sustainability although climate change impacts and factors such as grazing by livestock, transhumance, and uncontrolled bush fires could diminish any environmental gains.	<b>L</b>	<b>L</b>
Replication and upscaling	Uptake of the SAP in the VBA's strategic planning framework is expected to contribute to catalysing and accelerating SAP implementation. The experiences and lessons from the demonstration projects are incorporated in the SAP, which will facilitate replication and upscaling in other areas. SAP implementation has already started, e.g., through a World Bank project.	<b>S</b>	<b>-</b>
<b>E. Efficiency</b>	Cost saving measures included establishing strategic partnerships for various aspects of the project and building on existing data and information and other ongoing projects. The project however	<b>MS</b>	<b>MU</b>

	suffered delays from the start, resulting in the need for two extensions, which decreased efficiency.		
<b>F. Factors affecting performance</b>			
Preparation and readiness	The extensive project preparation period affected the quality at entry of the project with repercussions for the project's relevance and institutional set up, in view of the creation of the VBA in June 2006. As a result, the project had to be substantially revised during the inception phase. The initial planned duration and budget were inadequate. The MTE rating is retained as this criterion assesses the design and inception phase.	<b>MS</b>	<b>MS</b>
Implementation approach and management	The implementation structures at local, national, and regional levels were functional and generally able to adapt well to changing circumstances. Constraints such as inadequate technical support to the PMU and the language barrier did not have any major impact on delivery.	<b>S</b>	<b>MS</b>
Stakeholder participation and public awareness	The project closely engaged a wide range of key stakeholders at regional, national, and local levels and adopted a highly participatory approach particularly to the development of the TDA and SAP. Stakeholders demonstrated a high level of awareness about the VRB and its transboundary nature, which they attributed to the project.	<b>HS</b>	<b>MS</b>
Country ownership/driveness	The project was initiated by the countries themselves. Validation of the regional TDA by all the countries and endorsement of the SAP by the environment and water ministries demonstrate a high level of ownership by the countries.	<b>S</b>	<b>MU</b>
Financial planning and management	There were no major irregularities, but issues included weak country reporting, delays in reporting and disbursement of payments, shortfall in cash cofinance, and non-payment of PMU staff for work done following operational closure.	<b>MS</b>	<b>MU</b>
UNEP supervision and backstopping	UNEP provided effective supervision and backstopping although this could have been better in the pre-MTE period.	<b>S</b>	<b>MS</b>
Monitoring and Evaluation	The overall rating on M & E is based on rating for M&E Implementation.	<b>S</b>	<b>MS</b>
- M & E Design	The revised logical framework was coherent although there were some weaknesses, e.g., the outputs and outcomes were the same and not all the indicators were 'SMART'.	<b>MS</b>	<b>MS</b>
- M & E Implementation	M & E was conducted in accordance with the M & E plan set out in the inception report.	<b>S</b>	<b>MS</b>
<b>OVERALL RATING</b>		<b>S</b>	<b>MU</b>

## Lessons learned

14. The following lessons derived by the TE are based on the above findings and relate to the key factors (positive and negative) affecting the project's performance and achievements:

1. Engaging an existing regional basin organization (VBA) in the execution of project activities and for future SAP implementation is a very effective strategy to help achieve the objectives, strengthen country ownership, and sustain project outcomes following project closure. The VBA played a substantial role in the execution of project activities and was assigned responsibility by the PSC for coordinating future SAP implementation. An important contribution of the VBA was facilitating

endorsement of the SAP by both the water and environment ministers in all the six countries. Incorporation of the SAP into the VBA's strategic plan provides a robust mechanism for SAP implementation.

2. In projects that have a strong technical focus (development of TDA and SAP in the case of the GEF Volta project) provisions must be made to ensure the availability of adequate technical support in addition to managerial capacity. The GEF Volta project PMU suffered from limited technical support especially when UDC's role was scaled down and the TTF disbanded. This was compounded by factors such as resignation and poor performance of some of the consultants contracted for specific technical tasks. It was necessary for the RPC and UNEP Task Manager to devote a considerable amount of time to technical tasks such as finalizing the TDA.
3. It is unrealistic to expect that an expert hired to manage a technical project will have both the required managerial and technical skill sets since it can be difficult to find an individual who possesses both skill sets. The RPC had excellent technical capabilities but some initial challenges were encountered regarding project management (e.g., financial reporting, processing of contracts and payments), and much coaching was necessary from UNOPS. While training of the RPC and other PMU staff greatly improved the situation, the initial problems had knock-on effects on project implementation. Similarly, limited managerial capacity at the national level required considerable effort by the PMU and UNOPS to address ensuing problems. For a technical project, it is important that adequate technical and managerial support is provided at national and regional levels. This may require hiring of two separate individuals (a technical adviser supported by a project manager) if one individual with both skill-sets cannot be identified.
4. Unrealistic co-finance pledges particularly cash co-finance, and overestimation of countries' ability to mobilize funds can seriously threaten progress at the national level, with potential repercussions on overall achievement of project objectives. Owing to a number of factors, the GEF Volta project participating countries experienced difficulties in realizing their cash co-finance pledges (revised pledges were made during the inception phase). It was expected that some of this cash co-finance would be used for remuneration of national project personnel, but this did not happen, leading to low motivation and poor performance among some of them. Discussion of this matter also took up a considerable amount of time during multiple PSC meetings.
5. The time required for completion was underestimated. Regional projects of this scope and complexity require many adjustments, revisions, and, ultimately, extensions, etc. during implementation, which can have significant cost implications even though extensions are labelled 'no-cost'. The GEF Volta project had two extensions that increased its duration from four to six years. Whilst the budget envelope is not altered, covering the associated additional running costs meant that some activities had to be dropped and the associated budget moved to project management, and PMU staff reduced. Additional 'hidden' costs were incurred by the implementing and executing agencies due to time demands on the responsible personnel.
6. Demonstrating that concrete benefits to stakeholders could be derived from specific management measures greatly increases stakeholder buy-in during project implementation and the prospects for uptake and sustainability of results after the project ends. Local charcoal producers in Ghana were keen to adopt the new charcoal production methods introduced because they saw actual substantial increases in income from using these methods. In addition, providing an alternative source of wood for charcoal from planted woodlots not only meant that producers had a more easily accessible supply of raw material but that the pressure on natural forests was reduced. In contrast, where no concrete long-term benefits are foreseen, stakeholders are likely to abandon the activities thereby undermining sustainability of outcomes, as was seen in Ghana and Benin. In the demonstration areas in these two countries, there was no maintenance of the reforested

plantations following the end of the GEF Volta project and discontinuation of financial support to the local communities who were involved in the reforestation programmes.

7. For transboundary projects between multiple countries, specific problems in individual countries can delay implementation and undermine the purpose of transboundary knowledge sharing and cooperation, as demonstrated by the impact of political instability in Côte d'Ivoire on the joint demonstration project with Ghana. Similarly, differences in national priorities between the partner countries could also undermine the goal of transboundary cooperation, as experienced in Togo and Benin. As far as possible, the selection of transboundary projects should be based on similar conditions and priorities in each of the participating countries.
8. Social and cultural practices can potentially affect project delivery and sustainability of outcomes. In the demonstration project areas issues such as transhumance and deliberate setting of bush fires for farming and hunting were observed to have a significant impact on the demonstration project activities and sustainability of outcomes. Similarly, differences in regulatory frameworks and levels of surveillance and enforcement between countries that share a transboundary basin can undermine project performance and the achievement of global environment benefits and sustainability on the long term. Mitigating measures to address these issues must be considered in project design and development of management measures.

## **Recommendations**

1. The VBA member countries (specifically the water and environment ministries) should make every effort to strengthen the VBA for coordination of SAP implementation (including timely payment of dues), for which it has been given the responsibility by the GEF Volta project PSC. The VBA will need, for example, appointment of appropriate staff.
2. As seen in many GEF IW projects, inability of the countries to mobilize cash co-finance is a frequently occurring problem. To avoid this in future projects, countries must ensure that co-finance, especially cash co-finance, is realistically estimated and further that adequate budgetary provisions are made for remuneration of national project personnel, many of whom have responsibilities under the project added to their already heavy workload.
3. The water and environment ministries in the VRB countries as well as the VBA should disseminate the project results to all key stakeholders using appropriate communication channels. Consideration should be given to developing a range of information products in the appropriate format and languages (English and French), including local languages. These activities can be undertaken during SAP implementation to support the process and to attract other donors and partners for the collaborative management of the VRB.
4. UNEP and the VBA should continue to develop projects for donor support for implementation of the various SAP components and to help countries to uptake the SAP into their national IWRM strategies and programmes.

## **I. INTRODUCTION**

15. This report presents the findings of the terminal evaluation of the Global Environment Facility (GEF) full size project “Addressing Transboundary Concerns in the Volta River Basin and its Downstream Coastal Area” (GEF Project Id: 1111; IMS No. GFL/2328-2731-4957). The United Nations Environment Programme (UNEP) was the implementing agency and the United Nations Office for Project Services (UNOPS) Kenya Operations Centre the executing agency. UNOPS established a Project Management Unit (PMU), which was hosted by the Ghana Water Resource Commission (WRC) in Accra. Participating countries were Benin, Burkina Faso, Côte d’Ivoire, Ghana, Mali, and Togo. The overall objective of the project was “to enhance the ability of the riparian countries to plan and manage the Volta River Basin and its downstream coastal area (including aquatic resources and ecosystems) on a sustainable basis.

16. Financial support was provided by the GEF (US\$5,347,380) and through co-financing from the six governments and other partners. The project was implemented from January 2008 to December 2013 (including two extensions).

17. The midterm evaluation (MTE) was carried out in 2011. This terminal evaluation was initiated in April 2015.

## **II. THE EVALUATION**

### **Purpose and Scope**

18. In line with the UNEP Evaluation Policy and the UNEP Evaluation Manual, the terminal evaluation (TE) is undertaken at the end of the project implementation period to assess project performance (in terms of relevance, effectiveness and efficiency), and to determine outcomes and impacts (actual and potential), including their sustainability, stemming from the project. Main evaluation principles and criteria are presented in the evaluation Terms of Reference (TORs) in Annex 1. Two independent consultants were contracted by UNEP for the conduct of this evaluation.

19. The two primary purposes of the TE are:

- i. To provide evidence of results to meet accountability requirements; and
- ii. To promote learning, feedback, and knowledge sharing through results and lessons learned among UNEP and the executing partners.

20. The evaluation was guided by a set of key questions, based on the project’s intended outcomes:

- a) How successful was the project in building national and regional capacity (at individual, organizational and enabling environmental level) for sustainable environmental management and monitoring of the VRB? How effective was the project in promoting stakeholder participation in the process towards the Transboundary Diagnostic Analysis (TDA)?
- b) To what extent has the project developed regional legal, regulatory and institutional frameworks and management instruments for addressing transboundary concerns in the VRB and its downstream coastal areas? Is the TDA a robust synthesis of technical information on the VRB useful to support the Strategic Action Programme (SAP) process? Has an enabling environment for SAP implementation been created and adequate technical support provided to its development?
- c) Have Action Plans for the national part of the VRB been prepared?

- d) To what extent have the demonstration projects achieved their intended results? Do they have a good strategy in place for monitoring, lesson learning and replication? How is implementation proceeding for the demonstration projects in the five countries?
  - e) How successful was the project in building partnerships with international and national organizations, the private sector and other projects?
21. These questions were expanded by the evaluation consultants during the evaluation inception phase and used for the interviews with partners and stakeholders.
22. The project was assessed based on a set of evaluation criteria grouped into four categories as follows:
- i. Attainment of objectives and planned results, which comprises the assessment of outputs achieved, relevance (including strategic relevance, which looks at the alignment of project objectives with UNEP, donor, partner and country policies and strategies), effectiveness and efficiency and the review of outcomes towards impacts;
  - ii. Sustainability and catalytic role, which focuses on financial, socio-political, institutional and ecological factors conditioning sustainability of project outcomes, and also assesses efforts and achievements in terms of replication and up-scaling of project lessons and good practices;
  - iii. Processes affecting attainment of project results, which covers project preparation and readiness, implementation approach and management, stakeholder participation and public awareness, country ownership/driven-ness, project finance, UNEP supervision and backstopping, and project monitoring and evaluation systems; and
  - iv. Complementarity with the UNEP strategies and programmes, which covers linkage to UNEP's Expected Accomplishments and Programme of Work, Alignment with the Bali Strategic Plan, Gender, and South-South Cooperation.
23. The project document and logical framework (Annex 2) were used to assess the quality of project design in the TE inception phase (Annex 3). All evaluation criteria were rated in accordance with standard UNEP assessment guidelines, which are given in the evaluation TORs.

### **Evaluation approach**

24. The evaluation was conducted by two independent consultants between April and December 2015, under the overall supervision of the UNEP Evaluation Office (Nairobi) and in consultation with the UNEP/GEF Task Manager (TM). The findings of the evaluation are based on both quantitative and qualitative methods that were used to evaluate project achievements against the expected outputs, outcomes, and impacts, and consisted of:

- A desk review of key project documentation, reports produced by the project, and relevant websites, among others (Annex 4).
- Interviews: Face to face/telephone/Skype interviews with the Regional Project Coordinator, National Focal Points, National Project Coordinators, National Operational Focal Points, representatives of partner institutions, national ministries of water and environment and other executing partners such as UNEP, UNOPs, the Fund Management Officer (FMO), UDC, and others. A list of individuals interviewed is presented in Annex 5.
- Country sites visits: The consultants visited Burkina Faso (Ouagadougou), Benin (Cotonou, Natitingou), Ghana (Accra, Sunyani, Bole, Akosombo), and Togo (Kara, Lome), where they met representatives of regional and national agencies, NGOs, relevant organizations and other regional and local partners to discuss project interventions and achievements. They also visited a number of project sites. The schedule is presented in Annex 6.

- The consultants held face-to-face interviews with persons from Côte d'Ivoire and Mali, whom they met in Burkina Faso.

### **Limitations of the evaluation**

25. Because of security concerns in Cote d'Ivoire and Mali, these countries were not visited by the terminal evaluation consultants. Although interviews were held in Burkina Faso with two persons from each of these countries, feedback from a wider group of national partners and stakeholders was needed. To this end, a questionnaire was circulated to partners in both countries but no response was received.

## **III. THE PROJECT**

### **A. Context**

26. Covering an estimated area of 400,000 km<sup>2</sup>, the VRB is the 9<sup>th</sup> largest river basin in sub-Saharan Africa. It extends over six West African countries (Benin, Burkina Faso, Côte d'Ivoire, Ghana, Mali, and Togo) in one of the poorest regions in Africa. Areal coverage of the basin in each country ranges from 1% (Mali) to almost 70% (Ghana). The VRB's population exceeds 20 million, is growing at about 2% per annum, and is highly dependent on land, water, and forest resources, living predominantly on subsistence agriculture, fishing, and animal husbandry.

27. A major concern for the countries is the need to produce adequate food for the growing human populations. Increased urbanization and industrial and mining activities place additional pressures on the relatively scarce natural resources of the region. The project document projected a 300% increase in the water demand by the year 2025 for domestic and industrial activities due to rapid population growth and expected industrial expansion. The water demand for irrigation in the basin in Ghana and Benin were projected to increase by 538% and 706%, respectively<sup>1</sup>. Rain-fed agriculture, however, is becoming more precarious and less reliable under climate change and the ensuing variable precipitation. Throughout the VRB, dams and reservoirs have been created in order to mobilize water for agricultural, industrial, and electricity-generating purposes. The number of large and small dams continues to expand as population pressure grows. Increasing use of these waters and decreasing precipitation in the region, however, threaten the sustainable management of the VRB.

28. A combination of the climatic, ecological, economic, and demographic problems makes the region very susceptible to environmental damage when inappropriately managed. The need for a regional approach to basin management is accentuated by socio-economic and environmental linkages amongst the six countries stemming from but extending beyond the basin, including shared benefits of power generation and effects of modified flows on coastal areas. The project aimed to strengthen the capacity of the VRB countries for joint management of the basin.

29. As part of activities in the project preparation phase, a preliminary TDA including a causal chain analysis, and a preliminary SAP were prepared. The preliminary TDA identified a number of inter-related environmental concerns in the VRB, including land degradation, water scarcity, loss of biodiversity, flooding, coastal erosion, and water quality degradation. Water scarcity was identified as a priority transboundary concern and received particular attention in the project. The preliminary SAP identified specific environmental quality objectives (EQO), targets, and actions designed to address the main transboundary issues in the VRB.

---

<sup>1</sup>The baselines for these projections are presumably 2003 or 2004 when the GEF Volta project was being designed.

30. There has been no major change in the project context since it was designed. Sustainable management of the VRB is becoming increasingly important in view of growing pressures from human populations and development activities in the countries that share this basin. Furthermore, climate change impacts on the water resources of the basin are likely to exacerbate some of the current problems such as freshwater scarcity, floods, and drought.

## **B. Objectives and components**

31. The project was a foundational project towards future implementation of strategic actions to achieve the long term goal and broad development objective. As defined in the project's inception report, the project's goals and objectives were:

- Long-term goal: Equitable and sustainable management of water resources and other connected natural resources in the Volta River Basin and its downstream coastal area.
- Overall objective: To enhance the ability of the riparian countries to plan and manage the Volta River Basin and its downstream coastal area (including aquatic resources and ecosystems) on a sustainable basis, by achieving sustainable capacity and establishing regional institutional frameworks for effective management; developing national and regional priorities; and effective legal, regulatory and institutional frameworks and management tools as a basis for action as well as initiating national and regional measures to achieve sustainable ecosystem management.
- Broad development objective: To address the perceived major transboundary problems and issues of the Volta Basin leading to the degradation of the environment as a result of human activities, by reducing those activities that lead to water scarcity, land and water degradation, and to integrate environmental concerns with present and future development of the basin. The broad development objectives are in line with the World Summit on Sustainable Development (WSSD) recommendations, national IWRM planning process, and national development and poverty reduction strategies.

32. To achieve the broad development objective, three major components were proposed in the original project document. These components were modified in the project's inception report into three specific objectives with associated output, indicators, activities, work plan, and budget:

- Specific Objective 1: Build capacity, improve knowledge and enhance stakeholders' involvement to support the effective management of the VRB;
- Specific Objective 2: Develop river basin legal, regulatory and institutional frameworks and management instruments for addressing transboundary concerns in the Volta River Basin and its downstream coastal area;
- Specific Objective 3: Demonstrate national and regional measures to combat transboundary environmental degradation in the Volta Basin.

33. Expected outputs, outcomes, and objectively verifiable indicators for each specific objective are presented in the updated project logical framework, approved by the PSC in 2008) (Annex 2). The major planned outputs were the regional TDA and SAP, Action Plans for the National Part of the VRB (APNP-VRB), and implementation of three transboundary demonstration projects.

## **C. Target areas and groups**

34. The project was conducted in the six VRB countries and was intended to link freshwater basin management with coastal and marine ecosystem management. As such, the project document



considered the area of influence of the project to include the VRB as well as the coastline of Benin, Ghana, and Togo (which are part of the Guinea Current Large Marine Ecosystem).

35. The specific target population of the project was not defined in the project document or project inception report, but the primary stakeholders included the national and local governments of the six project countries (particularly the water and environment ministries), local communities, non-governmental organizations (NGO), general public, and regional institutions particularly the VBA.

#### **D. Milestones in design, implementation, and completion**

36. The Volta River Basin project was endorsed by the GEF Chief Executive Officer (CEO) in August 2006 and approved by UNEP and UNOPS in May 2007. Project execution started in January 2008 with the establishment of the PMU and all its governance systems. The initial planned duration was four years but implementation continued for six years following two extensions, the first to December 2012 on recommendation of the Project Steering Committee (PSC) at their second meeting in April 2010 and the second to December 2013 following the MTE, which was completed in November 2011. There were three revisions during the course of the project.

#### **E. Implementation arrangements and partners**

37. UNEP as the implementing agency was responsible for overall project supervision and implementation support to ensure that the project remained on track and consistent with GEF and UNEP policies and procedures. Implementation was initially through UNEP's Division for GEF Coordination (DGEF) and afterwards through the Division of Environmental Policy Implementation (DEPI) following the dissolution of DGEF and the integration of UNEP's GEF operations into other UNEP Divisions.

38. UNOPS was responsible for administrative and financial management of the project and production of financial and progress reports to UNEP. According to the Project Document, UNOPS was to execute the project in close collaboration with the UNEP-DHI UDC, whose role was identified as assisting in key technical and scientific issues based on a budgeted input of 20 months. However, in practice, UDC was contracted in August 2010 for four man months over the remaining 27 months of the project (see Part IV Section F, Factors affecting performance).

39. The regional PMU was hosted by the WRC of Ghana. It was headed by a Regional Project Coordinator (RPC) who was contracted by UNOPS, and assisted by three full-time staff. In each of the six countries, National Implementation Committees (NIC), National Project Coordinators (NPC), National Focal Points (NFP), and National Operational Focal Points (NOFP) were designated.

40. Memoranda of Agreement (MOAs) for project implementation at the national level were signed in 2008 between UNOPS and the government agency responsible for water or environment in each country:

- Togo: Direction de l'Environnement (Ministère de l'Environnement, du Tourisme et des Ressources Forestières); Direction Générale de l'Eau et de l'Assainissement;
- Burkina Faso: Direction Générale des Ressources en Eau (Ministère de l'Agriculture, de l'Hydraulique et des Ressources Halieutiques); Direction Générale de la Conservation de la Nature (Ministère de l'Environnement et du Cadre de Vie);
- Ghana: Water Resources Commission (Ministry of Water Resources, Works and Housing); Environmental Protection Agency (Ministry of Environment Science and Technology);
- Benin: Direction Générale de l'Environnement (Ministère de l'Environnement et la Protection de la Nature); Direction Générale de l'Eau (Ministère de l'Energie et de l'Eau);

- Côte d'Ivoire: Direction des Ressources en Eau (Ministère de l'Environnement des Eaux et Forêts); Direction des Politiques Environnementales et de la Coopération (Ministère de l'Environnement des Eaux et Forêts);
- Mali: Secrétariat Technique Permanent du Cadre Institutionnel de la Gestion des Questions Environnementales (Ministère de l'Environnement et de l'Assainissement); Direction Nationale de l'Hydraulique (Ministère de l'Energie, Ministère de l'Eau).

41. Key regional partners were the VBA, Economic Community of West African States/Water Resources Coordination Unit (ECOWAS/WRCU), European Union (EU) Volta Project, Volta Hydrological Cycle Observing System (HYCOS) Project, International Union for the Conservation of Nature Project d'Amélioration de la Gouvernance de l'Eau dans le Bassin de la Volta (IUCN/PAGEV), Global Water Partnership-West Africa (GWP-WA), and Syndicat Interdépartemental pour l'Assainissement de l'Agglomération de Paris (SIAAP).

## **F. Project financing**

42. GEF financing for the full size project was US\$5,347,380 and for project development (PDF-A and PDF-B) US\$497,500 (Table 1). Expected cash and in-kind co-financing was \$10,871,231, but this was revised in the inception report to US\$6,598,239. Table 2 gives a summary of expected financing sources for the project as presented in the Inception Report. The project budget was originally developed in 2003, and was affected by the fluctuating value of the US dollar with a drop in value relative to the CFA (used in five of the six basin countries) since May 2003 when the budget was first approved, and by inflation. Details on actual expenditures and co-finance contributions are presented in Part IV Section F and Annex 7.

**Table 1. Project expected financing sources** (source: Inception Report)

Country/Partner	Initial pledge US\$	Revised pledge (2008) US\$
<b>GEF Support</b>		
Project	5,347,380	5,347,380 <sup>2</sup>
PDF – B	472,500	472,500
PDF – A	25,000	25,000
<b>Subtotal GEF</b>	<b>5,844,880</b>	<b>5,844,880</b>
<b>Co-financing</b>		
Benin	418,200	418,200
Burkina Faso		267,353
Côte d'Ivoire	915,000	915,000
Ghana	3,888,270	690,000
Mali	7,211	314,270
Togo	819,916	819,916
UNEP	60,000	60,000
Hungary	10,000	10,000
Czech Rep.	50,000	50,000
IUCN	620,000	620,000
ECOWAS/EU <sup>3</sup>	1,962,500	1,962,500
SIAAP <sup>4</sup>	471,000	471,000
MCA Burkina Faso		To be determined
<b>Subtotal Co-financing</b>	<b>9,222,097</b>	<b>6,598,239</b>
<b>Total Project Budget</b>	<b>15,066,977</b>	<b>12,443,119</b>

## G. Project partners and roles, benefits

43. In addition to the six VRB countries, a range of other partners participated in the project. They added value to the project and some of them were themselves beneficiaries. The key project partners and their respective roles and benefits are presented in Table 2.

**Table 2. Key project partners, roles, and benefits.**

Key partners	Role	Benefits from project
Governments of the six VRB countries (environment and water ministries and agencies)	Implementation of the project at the national level, including demonstration projects, through appointment of NFPs, NOFPs, NICs, engagement of national stakeholders, co-finance contributions.	Improved knowledge based and capacity for management of the VRB (including identification of priority transboundary issues and root causes, actions to address issues, project data base and information sharing system, project management and coordination)
Local communities	Execution of demonstration projects	Improved capacity including lessons and best practices for addressing priority issues in hotspots, increased knowledge and awareness about the VRB environment
Local NGOs and CBOs	Development and execution of	Improved capacity and awareness, training

<sup>2</sup> 100,000 USD directly managed by UNEP as project evaluation costs

<sup>3</sup> 1,250,000 euros

<sup>4</sup> 300,000 euros

	demonstration projects, engagement of local communities, training	material
UNEP/DHI UDC	Technical support	Information, lessons, and experiences for future projects executed by UDC in African river basins.
VBA	Provide policy guidance and strategic orientation to the project; SAP implementation (follow up phase)	Assistance in developing its 5 year strategic plan; support for stakeholder meetings; mechanism for implementation of the VRB Convention (SAP); support for development of the Water Charter and VBA programming framework; improved knowledge base and capacity for management of the VRB (including the GEF Volta project outputs and participating in capacity building activities); support for the establishment of the VBO and data platform; support to VBO studies (hydro-meteorological baseline; assessment of the basin's socioeconomic and environmental situations; analysis of the issues regarding sustainable management of water resources).
IUCN, GWP, and others	Implementation of joint activities; Execution of demonstration projects; capacity building and awareness raising; establishment of pilot local committees in Benin and Togo, Ghana and Côte d'Ivoire.	National and regional reports from the GEF Volta project as inputs for other activities (e.g., preparation of IUCN/PAGEV phase III document); technical and financial support for training activities and capacity building workshops; support provided for preparation of trainings in monitoring tools; support for the preparation of the 4th Consultative Forum of Communities in the Black Volta.

## H. Changes in design during implementation

44. One of the original objectives (objective 2) in the project was 'Establish policy, legal and institutional frameworks for addressing transboundary concerns in the basin, including a regional convention for basin management, NAPs<sup>5</sup> and an updated and endorsed SAP', under which one of the results was 'Convention/protocol developed and signed by all countries'. However, as a result of the signature of the Volta Basin Convention and establishment of the VBA in July 2006 prior to GEF approval of the project, it was necessary to amend the project design during the inception phase, with objective 2 changed to 'Develop river basin legal, regulatory and institutional frameworks and management instruments for addressing transboundary concerns in the Volta River Basin and its downstream coastal area', and to revise the log frame accordingly.

45. Changes were also made to the demonstration projects. The original intention was that the demonstration projects would be transboundary, but this did not proceed as planned for all the projects due to a number of circumstances that were largely beyond the control of the project. For demonstration project 1 between Mali and Burkina Faso, the Government of the latter signed an agreement with the Millennium Challenge Account (MCA) to support water resources management

<sup>5</sup> National Action Plan

development, which included activities planned much earlier by the GEF Volta Project in the demonstration area. Most of the budget for this demonstration project was therefore reallocated to Mali in the framework of the MOA signed with this country. In early 2009 Benin pulled out of demonstration project 2 with Togo “Installation and comparison of technological models of waste water treatment in the cities of Kara (Togo) and Natitingou (Benin)” since this was not consistent with the priorities of local stakeholders in Benin. An alternative project was subsequently developed in Benin for restoration and protection of the Pendjari Riverbank. Another amendment was the removal from the project workplan of the output ‘Replication strategy for demonstration project developed and initiated’ (under specific objective 3) following the MTE.

## **I. Reconstructed Theory of Change**

46. UNEP evaluations require a Theory of Change (TOC) analysis and Review of Outcomes to Impacts (ROtI) in order to identify the sequence of conditions and factors deemed necessary for project-specified outcomes to yield impact and to assess the current status of and future prospects for results. The methodology is presented in Annex 6 of the TORs.

47. The exercise identifies “intermediate states”, which are the transitional changes between the project’s immediate outcomes and the intended impact that are necessary for the achievement of the intended impacts. UNEP defines ‘impact’ as changes in environmental benefits and how these affect human living conditions. For the Volta project, the long term impact (Global Environmental Benefit) is considered to be ‘Achievement of EQOs<sup>6</sup> leads to improvement in environmental condition of the VRB and downstream coastal areas and increase in global environmental benefits and ecosystem services for stakeholders.’

48. The TOC analysis also identifies the Impact Drivers (the significant external factors that if present are expected to contribute to the realization of the intended impact and can be influenced by the project and its partners) and the Assumptions (the significant external factors that if valid are expected to contribute to – or at least not to hamper – the realization of the intended impacts but are largely beyond the control of the project). By measuring the direct outcomes and impact drivers, and verifying the validity of the assumptions, it should be possible to estimate the likelihood that the project will bring about the intended, long term changes and have a lasting impact.

49. The reconstructed TOC for the project is presented in Figure 1. The project strategy is based on three main mutually supportive components to promote sustainable management of the VBR and its downstream coastal areas: (1): Build capacity, improve knowledge and enhance stakeholders’ involvement to support the effective management of the Volta River Basin; (2): Develop river basin legal, regulatory and institutional frameworks, and management instruments for addressing transboundary concerns in the Volta River Basin and its downstream coastal area; and (3): Demonstrate national and regional measures to combat transboundary environmental degradation in the Volta Basin.

50. The project-specified outcomes and outputs are achievable within the project’s timeframe, but these in themselves are not sufficient to attain the long term impact. As shown in Figure 1, in addition to the drivers that result from the project, a number of critical assumptions must be met to move towards the achievement of impact.

51. Unintended effects along other causal pathways are likely to occur. For example, improvement in the provisioning of ecosystem services (e.g., freshwater) in the VRB could encourage more people to move to the area including through transhumance. It is likely that not all of these individuals will adopt sustainable practices, and there is also a danger that the carrying capacity of certain areas could be

---

<sup>6</sup> Environmental Quality Objectives

exceeded, to the detriment of the VRB environment. These pathways could undermine the achievement of the project and sustainability of its results.

#### IV. EVALUATION FINDINGS

##### A. Strategic Relevance

52. The Project Document states that “the overuse and misuse of land and water resources in the Volta basin is affecting the region’s rich biodiversity and degrading downstream coastal ecosystems” and that “a combination of the climatic, ecological, economic and democratic problems makes the region susceptible to environmental damage when inappropriately managed”. Further, the preliminary TDA and SAP made it clear that the region as a whole lacks the capacity and the information base for the integrated management of the Volta basin, linked also to lack of capacity for Integrated Coastal Zone Management (ICZM) / Integrated Coastal Area and River Basin Management (ICARM) and for Integrated River Basin Management (IRBM). It was against this background that the project was formulated. The project was and remains highly relevant to addressing the challenges faced by the VRB governments and poor communities regarding issues such as water scarcity, persistent poverty, climate change, and ecosystem degradation in the Volta Basin. The implementation of the GEF Volta Basin project supplemented existing regional, bi-lateral, and national efforts to address environmental issues in the Basin.

53. The project as implemented has remained relevant in the context of the UNEP mandate and policies. For example, it is supportive of two of the Strategic Objectives of the UNEP GEF Action Plan on Complementarity: (i) relating national and regional environmental priorities to the global environmental objectives of the GEF; and (ii) promoting regional and multi-country cooperation to achieve global environmental benefits. The project is also consistent with UNEP’s cross-cutting priorities and objectives (Medium Term Strategy 2010-2013) in the areas of ecosystem management and climate change. In addition, the project supports UNEP’s focus on efforts on the special needs of Africa in the field of freshwater, consistent with a decision adopted at the 20<sup>th</sup> session of the UNEP Governing Council on support to Africa. The Project is also consistent with the UNEP Global Programme of Action for the Protection of the Marine and Coastal Environment from Land Based Activities (GPA/LBA) for the WACAF region. Further details on the project’s contribution to UNEP’s Medium Term Strategy (2010-2013) and related Programme of Work are provided in Part IV Section G.

54. The project conforms with the objectives of GEF Operational Program 9, “Integrated Land and Water Multiple Focal Area” and with GEF International Waters (IW) Focal Area Strategic Priorities in Support of the WSSD Outcomes. This applies particularly to the following two priorities:

- Priority 2. Expand global coverage of foundational capacity building addressing the two key program gaps with a focus on cross-cutting aspects of African transboundary waters and support for targeted learning; and
- Priority 3. Undertake innovative demonstrations for reducing contaminants and addressing water scarcity issues with a focus on engaging the private sector and testing public-private partnerships.

55. The project was also highly relevant at the regional level, for example, with respect to the African Development Bank’s (AfDB) Water Supply and Sanitation Sector Policy adopted in 1989 and the draft Integrated Water Resources Management Policy; and implementation of the Action Plan for the conservation and sustainable use of coastal, marine, and related freshwater resources of the Environmental Component of the New Partnership for Africa’s Development (NEPAD).

56. The overall rating for strategic relevance is **Highly satisfactory**.

## B. Achievement of Outputs and Activities

57. The MTE overall rating on delivery of activities and outputs was **moderately unsatisfactory** in view of significant concerns around the slow progress and risks to completion of the TDA/SAP and demonstration projects. The following paragraphs provide a synthesis of the status of outputs and activities for each of the three specific objectives at the end of the project. A detailed summary is presented in Annex 8. This analysis is based on the revised logframe that was approved at the project inception meeting in 2006 and by the PSC in 2008.

### *Specific Objective 1*

58. This objective was concerned with building capacity, improving knowledge, and enhancing stakeholders' involvement to support the effective management of the VRB.

59. Output 1.1: Project managed and coordinated to partners' satisfaction: All activities under this output were completed. The project management system consisting of the PMU, PSC, Technical Task Force (TTF), NFPs, NOFPs, and NICs were established and fully functional by January 2008 (considered the project's actual start date). The PMU was hosted by the WRC in Accra, and represented part of Ghana's co-finance contribution to the project. An RPC was appointed along with three other PMU staff members (scientific and information officer, administrative assistant, and bilingual secretary). PMU staff and the NOFPs were trained and regularly updated in UNOPS' administrative, financial and procurement procedures and regulations.

60. This was a relatively small PMU for a project of this size, but it functioned very efficiently, despite some challenges encountered including limited technical support and project management capacity (see Part IV Section F). National and regional partners interviewed expressed satisfaction with the management of the project, although a few voiced dissatisfaction, for example, with the heavy bureaucracy and delays in release of funds. Further details of project management are presented in Sections E and F of this report.

61. The Project Inception Report, including the review of the project brief (logical framework, activities, workplan, budget, and institutional framework) and the project monitoring and evaluation plan were approved during the 1<sup>st</sup> PSC meeting held in Bamako from 13-15 May 2008.

62. MOAs were signed between UNOPS and each of the six countries for implementation of activities at the national level. Functioning of the national structures (NFPs, NOFPs, NICs) was variable, and some problems were encountered in relation to, for example, limited project management capacity, poor financial reporting, and low motivation linked to lack of remuneration of national project personnel. Measures taken by UNOPS to address some of these issues included providing training to national project personnel. Further details are presented in Part IV Section F.

63. The project also established partnerships with a number of different organizations with ongoing initiatives at the time related to the management of the Volta Basin water resources and environment. Among these were the VBA, IUCN/PAGEV, Volta HYCOS, SIAAP, EU Volta Initiative, BFP-Volta, GWP-WA, and ECOWAS/WRCC. Key execution partners were UDC and the VBA. A collaboration framework was signed with the VBA in 2009 as the main collaborator. The strategic partnership with the VBA was particularly important not only for implementation of the GEF Volta project, but also for future implementation of the SAP and sustainability of project outcomes (see Part IV Section D on Sustainability and Section F on Stakeholder participation and public awareness).

64. Output 1.2. Capacity and participation of stakeholders in VRB management strengthened: A number of training activities for regional, national, and local stakeholders were completed on various topics including the TDA/SAP process, management of the Volta Basin Information Sharing System (VB-ISS), water governance, and IWRM. Some of the training activities were co-organised with the VBA, Volta Basin Observatory (VBO), and IUCN/PAGEV. Consultants were contracted to develop national and regional stakeholders' engagement and capacity building plans, but consultants failed to deliver three of the reports (for Burkina Faso, Mali, and Togo). This was mainly due to the lack of coordination/monitoring of the studies at the national level and to the low competence of the consultants appointed by the national partners. This activity was subsequently reallocated to the VBA to be completed within the framework of its strategic plan. As a consequence, the project remained without a systematic regional stakeholder engagement and capacity building plan although this gap was addressed to some extent by the analyses of national and regional institutions and ongoing/planned initiatives in the Volta River Basin as well as training needs.

65. The GEF TDA/SAP process is a highly participatory process, and the project made considerable efforts to ensure the involvement of all key stakeholders in TDA/SAP development and in all foundational studies and activities supporting the process. Documentation of the involvement of stakeholders in TDA/SAP process is described in the TDA and SAP documents and in reports of national and regional workshops and meetings. The project supported the VBA coordination activities including the establishment of the VBO, stakeholders' forum, contribution to/review of studies, and implementation of joint capacity building activities (training and awareness creation) with key project partners. However, there should have been closer engagement with the private sector, and it is recommended that this be addressed during SAP implementation. Stakeholder involvement is addressed in detail in Section F of this report.

66. Output 1. 3. Knowledge based expanded and basin-wide communication mechanism in place: This output focused on the establishment of a data and information sharing platform and completion of national studies on the establishment of a regional information and data exchange mechanism in the Volta River basin for each of the six countries and the regional synthesis. The feasibility of establishing a Regional Information and Data Exchange Mechanism in the Volta Basin was assessed. This included analysis of existing metadata, data holding institutions, and training gaps. The Volta Basin Information Sharing System (VB-ISS) was subsequently developed and migrated to the VBO, which is a platform for data collection, compilation, and sharing. Contents of the system include hydro-meteorological, socioeconomic and ecological data, reports, documents, maps, and metadata. However, at the time of preparation of this report, information and data from the VBO were not yet directly accessible by the public. The establishment of the VBO by the VBA and with financial support from the GEF Volta project (e.g., purchase of the Arc GIS software and associated accessories) was one of the main achievements under this output. Collecting information from the countries required signing of MOUs with national institutions, but not all the countries have been forwarding data to the VBO. Despite the inherent sensitivity of national water resources data, it is important that national data are made available for management of the VRB (with appropriate data sharing protocols in place). Regional and national project team members were trained in the use of the VB-ISS (server administration, data entry and population of the VB-ISS, remote support and fine-tuning) with the support of UNEP's Division of Early Warning and Assessment (DEWA).

67. Another planned activity was development of hydrological and coastal hydrodynamic models of the Volta basin and its downstream coastal area through the EU Volta project. However, following early closure of the EU Volta project and the need to reallocate the budget, this activity was transferred to the VBO, with IUCN providing support to the VBO.

68. The six national reports and the regional synthesis, hydrological and hydrodynamic models as well as training and support provided by the project to development of the VB-ISS are valuable contributions



to the VRB knowledge base. The knowledge and information generated by the various studies have also supported the development of the regional TDA and SAP. A project website (English and French) was created and hosted by the IW:Learn website (<http://gefvolta.iwlearn.org>).

69. Achievement of outputs under Specific Objective 1 is rated as **Satisfactory**.

### ***Specific Objective 2***

70. Activities and outputs of Specific Objective 2 focused on improving the legal, regulatory and institutional frameworks and management instruments for addressing transboundary concerns in the VRB. They included finalisation of the TDA, preparation of the SAP and APNP-VRBs, and integration of the SAP into the VBA work plan. The aim of Specific Objective 2 was to finalize and agree on a geographically specific, quantitative TDA and to contribute to the development of a SAP and APNP-VRBs. The SAP is “a negotiated policy document that identifies policy, legal and institutional reforms and investments needed to address water and environmental issues in the Volta Basin” and identifies priorities for action by all countries involved to resolve the transboundary problems identified in the TDA.

71. Output 2.1. VRB regional coordination mechanisms supported: The GEF Volta project’s support of the VRB coordination mechanisms involved substantial support to the VBA, with which it worked very closely throughout the implementation period and was a member of the VBA’s Technical and Financial Partners Consultative Group. A collaboration framework was signed with the VBA that anticipated VBA’s adoption of the project outputs specifically the TDA and SAP. Activities supported by the project included the development of the VBA 5-year strategic plan (which was adopted by the VBA Council of Ministers in 2009), drafting of the Water Charter, establishment of the VB-ISS, and organization of stakeholder meetings. The project also donated software (Arc GIS) and associated accessories for the VB-ISS to the VBA, and supported related training to VBA staff to facilitate the implementation of the VB-ISS by the VBO. By playing an active role in the TDA/SAP process, the VBA benefitting from capacity building while at the same time providing valuable guidance to the process.

72. Output 2.1. Transboundary Diagnostic Analysis updated and finalized: The TDA is considered a scientific baseline that provides a foundation for a common understanding of the priority environmental issues and their root causes in a specific basin. It provides a basis for the development of future planning and prioritization processes such as the SAP. The MTE expressed serious concerns about the slow progress in preparation of and risk to completion of the TDA and SAP, and was of the view that the project was unlikely to deliver its key outputs unless it was extended by 6-12 months. The MTE recommended refocusing of the PMU efforts towards the completion of the TDA, SAP development, and support to existing demonstration projects. Specific recommendations are presented in the MTE report.

73. The updated regional Volta Basin TDA was a major output of the GEF Volta project, and was based on the preliminary TDA prepared in 2002, supplemented by information in national TDA reports and regional thematic reports (on basin water resources, ecosystems, governance analysis, and economic status) prepared by regional experts under the GEF Volta project. TDA regional and national teams were established and supported by a regional TDA team leader, a scientific and technical advisory committee, and TDA thematic groups. A number of national and regional workshops were held as part of the TDA development process (regional TDA planning workshop held in Togo in 2009 and national TDA planning workshops in each of the six countries in 2010). Participants were key basin stakeholders including representatives of the key ministries, regional institutions, and universities; project partners; regional and national TDA consultants; experts from water resources management institutions; and governance

and legal experts from the basin countries. Another workshop to support TDA development was the Volta Basin causal chain analysis workshop organised in Ghana (2010) to identify priority transboundary problems and their root causes. Participants at this workshop included regional and national TDA consultants and experts as well as scientists from the six countries.

74. Six national TDA reports were drafted and finalised by 2010, and validated during workshops held in each of the six countries. The reports were substantially revised with the support of the PMU and members of the regional TDA team. During the TDA process six priority transboundary issues were identified for the Volta Basin, and grouped under three main categories: i) changes in water quantity and seasonality flows, ii) degradation of ecosystems and iii) water quality concerns (agricultural, industrial and domestic water quality degradation). The regional TDA was validated by the countries in 2012.

75. One criticism from respondents concerned the extensive use of consultants in the TDA process, which they felt undermined the capacity building effort aimed at the national governments and institutions. It must be acknowledged, however, that engaging consultants was necessary because of the limited technical capacity existing at the time within government agencies. One of the major challenges encountered that delayed progress on preparation of the TDA was the resignation of the TDA team leader for Côte d'Ivoire (2010), regional TDA team leader (2011), and political instability in Côte d'Ivoire and Mali. Another problem encountered was the very limited availability of data (including recent data) for some parts of the Volta basin for preparation of the national TDAs. For example, in contrast to Burkina Faso and Ghana where the basin was studied extensively prior to the project, this was not the case in Togo with some parts not studied at all. Consultants therefore had to rely on extrapolations based on secondary data from other parts of the basin which, according to some of the stakeholders, did not represent the reality on the ground in some of the countries. Other respondents noted that the preparation of the TDA was heavily dependent on data on the White Volta, which is located mainly in Burkina Faso and has been extensively studied over the years.

76. The TE evaluation consultants reviewed the TDA and found that, despite the limitations, it is a comprehensive and robust scientific assessment of the state of the VRB, the major threats and their underlying root causes as well as socio-economic consequences. An assessment of downstream coastal areas in Ghana and Togo is also included. Stakeholders interviewed for the TE were pleased by the highly participatory approach, involving national and regional stakeholders, to TDA preparation. This approach has fostered a high level of ownership of the TDA. Further, through the TDA, stakeholders gained a better understanding of the transboundary nature of the environmental issues facing the VRB, and the need for collaboration among the countries in its management (see Section C on Effectiveness).

77. Output 2.3. Action Plans for the National Parts of the VRB (APNP-VRB) developed: National APNP-VRB planning workshops were held in the six countries in September and October 2012, and thematic groups were established by the countries and thematic meetings held. Guidelines for action sheets submission were prepared and discussed during regional and national SAP planning workshops. The planning workshops were followed by the preparation of APNP-VRBs by national experts/teams with support from the national SAP facilitators, and reviewed by national partners, the PMU, and the VBA. The final APNP-VRBs were integrated into the Volta Basin SAP action sheets.

78. Output 2.4. Strategic Action Programme (SAP) prepared: Along with the TDA, the SAP is the major output of the GEF Volta project and represents an important outcome (See Section C on Effectiveness). The MTE expressed major concerns about whether the project could deliver the SAP and be adopted by the countries (owing to low appropriation of the project at the time due to a number of factors including the extended start up period, low visibility of the project, and lack of trust by the countries in project management) in the remaining time. To address these concerns, the MTE made a number of

recommendations to focus efforts and other available resources on SAP development and adoption during the remaining project lifetime.

79. SAP preparation commenced with the formation of regional and national thematic groups and a regional inception meeting that was held in Burkina Faso in July 2012 with the involvement of UNEP, VBA, PMU, SAP team leader, and economic development expert, among others. This was followed by a regional SAP planning workshop in Benin in August 2012 and SAP EQO workshop in Burkina Faso in February 2013. At the national level, thematic groups were established and grant agreements were signed with national institutions for the implementation of the SAP process as per the updated SAP/APNP–VRB work plan. Subsequently, national SAP planning workshops and thematic meetings were organised between September and November 2012.

80. The SAP was drafted through a highly participatory and consultative process and validated by the PSC at its 5<sup>th</sup> and final meeting held in Lomé in November 2013. In line with the GEF TDA/SAP process, the SAP must be adopted by each government minister responsible for the environment in all the participating countries. This can require a considerable amount of lobbying with the governments, a task assigned to the VBA, which had an MOU with UNEP to run national campaigns for the SAP and other activities. Between April and May 2014, the Volta SAP was endorsed not only by all the ministers responsible for the environment but also the ministers in charge of water resources in all the six countries, which exceeded expectations especially given the limited time available and the numerous challenges encountered. Adoption of the SAP by all 12 ministers has important implications for SAP implementation and the sustainability of the project outcomes (see Part IV Section D on Sustainability). The TE highly commends the project team and the basin countries for this notable achievement. The evaluation consultants reviewed the SAP and found it to be very robust and responsive to the priority transboundary issues in the basin.

81. The completed TDA and SAP documents (the latter translated into French) were printed and copies delivered to the VBA in March 2015 for distribution. The VBA took every opportunity such as capacity building meetings/workshops to distribute the documents to partners and stakeholders. Partners, consultants, collaborators, and other stakeholders interviewed acknowledged that the two key achievements of the project and specifically under Specific Objective 2 were the TDA and the SAP. The production of these documents also increased the visibility of the VBA, which has responsibility for SAP implementation.

82. Achievement of outputs under Specific Objective 2 is rated as **Highly satisfactory**.

### ***Specific Objective 3***

83. Specific Objective 3 focussed on demonstrating national and regional measures to combat transboundary environmental degradation in the Volta Basin. In compliance with the recommendation of the MTE, Output 3.2 (with 4 activities) on the development of a replication strategy for the demonstration project was dropped due to delay in commencement of the demonstration projects. The 2003 Project Brief approved by the GEF Council anticipated three transboundary demonstration projects that UNEP was asked to further develop prior to approval of the project by the GEF CEO. Three demonstration project concepts were elaborated with the support of UDC and a supplemental PDF-B grant approved in February 2005. The initial demonstration project documents were reviewed, updated, and approved at the project inception meeting. MOAs were signed with the participating governments for demonstration project 1 and demonstration project 3 in 2010, with SIAAP for demonstration project 2 in 2011 for Togo, and in 2012 with SIAAP for demonstration project 2 in Benin. Demonstration project managers/coordinators were designated and community implementation committees or equivalent were established. The demonstration projects were intended to be transboundary with the aim of strengthening regional cooperation and encouraging the VRB countries to begin addressing common

issues in the basin. However, none of the demonstration projects implemented were actually transboundary owing to a number of different factors largely beyond the project's control. Nevertheless, the projects in individual countries succeeded in demonstrating measures to address certain common priority issues and that can be replicated in other areas. A notable achievement with a transboundary element was the preparation of two major transboundary agreements between Burkina Faso and Mali.

***Demonstration project 1: Joint management by Burkina Faso and Mali of a flow release warning system in the Sourou river valley (tributary of Black Volta River or Mouhoun).***

84. The overall objective of the demonstration project between Burkina Faso and Mali was preventing the risks of flooding in the Sourou catchment through a joint management system operated by the two countries. Activities focussed on improving the monitoring of hydrometric conditions, the characterisation of hydrological processes, and the management of Lery Dam; and developing a framework convention for the joint management of the Sourou river valley. During the planning workshop held in Burkina Faso in 2009, national partners in this country informed the PMU that the Government had also signed an agreement with the MCA to support the development of water resources management in the country, including previously planned activities by the GEF Volta Project in the demonstration project area. To avoid confusion and duplication of effort, a coordination meeting was held in Burkina Faso with MCA Burkina Faso and national partners in Burkina Faso and Mali. The budget allocated for the demo project in Burkina Faso was reallocated to other components. As co-financing partners, the MCA agreed to financially support the Burkina Faso Government while the GEF Volta Project provided technical support (primarily in the form of bathymetric measurements, study on historic floods, different probable flooding scenarios, and measures to mitigate flood impacts and improve the management of Lery Dam).

85. As result of a study funded by MCA Burkina Faso for the development of the early warning system in the framework of this demonstration project, the hydrological HEC-RAS model was chosen for flood forecasting including management, rehabilitation, and management of the Lery Dam. According to MCA Burkina Faso partners, the adaptation of the HEC-RAS model to the Sourou basin area was completed. Unfortunately, tests of the adapted model proved not to be satisfactory and resulted in a contractual conflict between MCA Burkina Faso and the MCA consultant hired to that end. Discussions between the two national directorates, MCA Burkina Faso, and the PMU were held to resolve the matter, but without success. Subsequently, in collaboration with the Mali demonstration project team, the PMU initiated a study on the establishment of an empirical relation between water level and floods in the Sourou basin. The results were combined with indigenous knowledge (mainly of local farmers and fishermen) to develop a basic early warning system to assist in anticipating floods and mitigating their socio-economic consequences and environmental impacts.

86. Other activities completed were GIS mapping of the project area in Burkina Faso and installation of hydro-meteorological equipment in Mali. The data needed to run the hydrological model in the two countries were collected under agreements reached with Volta HYCOS and national partners. The GEF Volta project also contributed to the preparation of two major transboundary agreements funded by the IUCN/Global Water Initiative (GWI) Sourou project, which were signed by the two countries: i) Agreement for the establishment of a Sourou basin transboundary IWRM committee between Burkina Faso and Mali and, ii) Agreement for the establishment of a joint IWRM technical committee between Burkina Faso and Mali. The agreements were implemented and followed up by two bilateral meetings in 2013.

***Demonstration project 2: Installation and comparison of technological models of waste water treatment in the cities of Kara (Togo) and Natitingou (Benin).***

87. Two separate demonstration projects were implemented in Togo and Benin because the Government of Benin pulled out of the joint project since it was deemed not consistent with the priorities of the local communities in the project area. Besides, the proposed water treatment system was not relevant to Benin in the absence of a sewerage plant/system in the demonstration project area.

Demonstration project in Togo

88. This demonstration project was executed in the Kara Municipality and championed by the Kara Mayor. It was developed on the basis of concerns about public health problems as well as deterioration of water quality and proliferation of aquatic weeds due to inadequate sanitation and wastewater treatment facilities in the area. The main objective was therefore to restore water quality and improve the health and living conditions of the people of Kara through the implementation of appropriate wastewater treatment technology. The project in Togo involved the construction of small-scale wastewater treatment plant in the Ewawu area of Kara to be connected to the wastewater network funded mainly by SIAAP. An MOA was signed between UNOPS and SIAAP as the demonstration project executing agency. A number of studies were carried out including environmental impact assessments and feasibility studies for connecting mosques, schools, restaurants, and other major public/private institutions to the network. The Kara Municipality organised several sensitisation and awareness-raising activities mainly around environmental sanitation for the beneficiary communities. A local NGO (Eau Vive) carried out some of the sensitisation and awareness creation activities and helped with the construction of the treatment plant. Training sessions were also organized on issues related to river bank protection, forest and water resources management as well as on the role of local stakeholders in the demonstration projects.

89. Delays were encountered due to additional network construction required for the construction of the plant. The construction of the wastewater network was completed before the TE took place but it was not connected to the treatment plant. The system can only be utilised when the treatment plant is completed and water supplied to the houses in the project community. It is necessary for the community members to have a water supply and toilet facilities in their homes in order to benefit from the wastewater network and treatment plant. Progress was also stalled because of the proposal by the Société Togolaise des Eaux to add a sanitation charge to its existing water billing system for areas served by the sewerage network. Communities at the project site had not agreed with the local government on how much they would pay for the supply of water to their homes and, until that was done, the wastewater network and treatment plant could not operate even if completed. Several persons interviewed expressed doubts as to whether the community members would be able to pay for the water supply as the community is one of the poorest in the municipality. It was feared that the plant would not be used if the communities cannot afford to pay for the water supply, which has implications for sustainability of the project results. This situation is very surprising considering that feasibility studies were carried out during the design phase, which should have determined if the community members are able and willing to pay for the water supply.

Demonstration project in Benin

90. Identification and development of a demonstration project for Benin took place over an extended period. Upon a PSC recommendation and as a result of discussions conducted with national partners in Benin, the demonstration project document was prepared and a grant agreement signed with the Benin

Government during the 3<sup>rd</sup> quarter of 2012. This greatly reduced the time for the execution of the demonstration project to only one year, which was compounded by the inherent seasonality of activities such as tree planting linked to the rainy season. The project focused on one of the main concerns and priorities of local stakeholders, which was the restoration and protection of the Pendjari River bank in Natitingou. Participatory reforestation campaigns were conducted along the river banks by local stakeholders.

91. Two training sessions were conducted on forests and water resources management to build and strengthen capacities of local stakeholders including journalists, local communities, regional directorates, and local NGOs. The training for journalists was to enable them to report and conduct educational radio discussions related to forest and water resources management. There were two radio broadcasts in local languages. Other project achievements included the identification of ten 'hotspots' where river banks were highly degraded as well as planting of about 26 hectares of three different tree species along the Kounne River and at its source (tributary of the Penjari River). In addition, 10km of fire break was established around the reforested areas, as bush fires are a common problem. The project also undertook an intensive awareness creation and sensitisation effort targeting the local community. In conversations with the TE consultants some of the community members showed good understanding of the environmental issues such as the relationship between forests and water quality/supply.

92. During the demonstration project execution, members of the local community were paid by the project to engage in various activities such as production of seedlings, tree planting, and maintenance of the plots. However, following the end of the project they returned to their regular livelihoods and had no time for maintenance of the reforested areas. The time period of one year for a reforestation project was too short to see any significant impacts in the area, especially when there are negative factors including user conflicts at play.

93. During visits to the demonstration site the TE consultants observed that the plots were not maintained and some trees were unhealthy or dead and others burnt from recent bush fires (allegedly set by hunters, although hunting is prohibited in the area), destroyed by animal grazing or cleared by farmers for agriculture. It is clear that unless some incentives are provided to local communities following the end of project support it is unlikely that the activities will be sustained or even replicated. Replication is also hampered by difficulty in obtaining seeds and seedlings. The use of fruit trees and integration of farming with reforestation as incentives were proposed by respondents. Furthermore, there was no subsequent follow-up and monitoring by national partners. Respondents from the Ministry of Environment informed the TE that at the time no monitoring was conducted in the country although provisions are made for this in the 2014 national environmental policy. Another challenge faced in protecting the river bank is related to the fact that much of the land along the bank is privately owned, and the objectives of private land owners, local stakeholders and the State do not always coincide. These are all factors that need to be considered in designing new projects or replicating and upscaling lessons from completed projects.

***Demonstration project 3: Restoration and protection of river beds of the Black Volta River (Côte d'Ivoire & Ghana) and its tributaries through participatory campaigns of reforestation.***

94. The focus of this demonstration project was to ensure sustainability of water resources in the Black Volta River basin through participative reforestation campaigns along the river bank. A bilateral steering committee was formed and meetings held in the two countries. This offered opportunities for both countries to share experiences and improve the collaboration and coordination of activities related to the sustainable management of their shared water resources. In Ghana, the WRC, which was responsible for the activities in this country, engaged a number of partners including: Partners in Participatory Development (PAPADEV), a local NGO; Forestry Service Department, Bole; and Ghana

National Fire Service, Bole. Reforestation was carried out along the river banks in identified degraded hotspots in the two countries. The tree species selected for planting were based on their resistance to drought, flood, and fire as well as their economic and medicinal value (e.g., charcoal production and treatment of malaria). Nevertheless, in Ghana some of the planted trees were affected by bush fires and flooding. Other activities in Ghana included development of a management plan for the new parcels of forest and identification of new areas to be reforested, establishment of 12 km of fire break, and dredging in selected tributaries. Training of community fire volunteers and organization of radio programmes on fire prevention by the Bole Ghana National Fire Service did not take place as planned due to high staff turnover within the service. This was as a major setback since there is a high risk of bush fires along the Black Volta River.

95. Other activities in Ghana focussed on more efficient and sustainable charcoal production. Eighty charcoal producers (men and women) in the Bole District were trained in the use of a mobile kiln provided by a local NGO, Kumasi Institute of Technology and Environment (KITE). In addition, KITE worked with the women groups in the area to plant woodlots specifically for charcoal production in order to reduce pressure on the natural forest. Training was provided by PAPADEV (including through training of trainers in the local community) and posters on the charcoal production methods were produced and circulated within the communities. More efficient charcoal production using improved local methods was also introduced by the project. Improving charcoal production was a major achievement as not only were environmental benefits derived, but there were tangible outcomes especially for the producers using the kiln method whose income from charcoal sales doubled due to increase in the volume of charcoal produced per unit volume of wood. As a result there is considerable interest by community members to adopt the more efficient methods, but they do not have the financial means to acquire the kiln. This will hamper replication and sustainability, unless the producers receive further support.

96. In Ghana over 30 local leaders (chiefs, elders, and opinion leaders) in five communities were sensitized through activities led by PAPADEV on water resources management and environmental issues. The TE consultants visited the project sites and held interviews with local community members. There was a high level of awareness about the environmental issues in the area and the project itself. Further, there was general consensus that the project had made a valuable contribution to the community and nearly all respondents expressed interest in another phase of the project. Some reforested areas were healthy while others had been affected by flooding, bush fires, and animal grazing. No maintenance had been carried out since the project ended as the community members were no longer receiving any financial compensation and had resumed their normal livelihood activities. There was a strong emphasis that fruit trees such as mangoes should have been planted instead, which would have provided food and income as incentives for the community to maintain the plantations. Such species, however, did not meet the criteria for selection (as mentioned above).

97. Implementation of the project activities was stalled in Côte d'Ivoire because of the political situation and security concerns in this country in 2010. This also meant that it was not possible to implement activities dependent on exchanges between the two countries such as training in efficient charcoal production. This undermined the value of the project in promoting collaboration between the two countries. Subsequent improvement in the situation in Côte d'Ivoire allowed the demonstration project to proceed but within a much reduced time frame. In this country, 50 ha of teak plantation were established, a 30 km fire break created in Bouna and Bondoukou, and dredging in selected areas of certain tributaries (Binéda, Koulida, Kolodio, Fako, and Zola) completed. Unlike in Ghana, bush fires are rare in Côte d'Ivoire because of strict enforcement of the law against bush fires and heavy penalties for infraction. Furthermore, community leaders in Côte d'Ivoire are extra vigilant since they are held responsible for any bush fire caused by members of their communities.

98. In Côte d'Ivoire, the GEF Volta project also provided support to national partners for the acquisition and installation of hydrological equipment required for better monitoring of water resources in the national part of the basin.

99. Achievement of Specific Objective 3 is rated as **moderately satisfactory** in view of the incomplete Togo project and the lack of maintenance of the reforested areas.

100. The MTE rated the overall delivery of activities and outputs as moderately unsatisfactory. This was in light of significant concerns around the slow progress and on-going risks to completion of the TDA/SAP and demonstration projects. By the end of the project and with two extensions granted, major outputs such as the TDA and SAP were delivered and the demonstration projects completed or sufficiently advanced to provide valuable lessons and experiences for replication in the basin. Nevertheless, during interviews with local and national stakeholders, the TE consultants learned that the results and lessons from demonstration projects were not widely disseminated, and many respondents especially in the local communities had no idea about what had become of the project when activities ended. The water and environment ministries along with the VBA are urged to disseminate the project results including in local languages using appropriate communication channels. This will help to promote replication of lessons and experiences derived from the demonstration projects.

101. The overall TE rating for achievement of outputs and activities is **Satisfactory**.

### **C. Effectiveness: Attainment of project objectives and results**

102. Assessment of Effectiveness examines whether the project has achieved its overall objective “to enhance the ability of the riparian countries to plan and manage the Volta River Basin and its downstream coastal area (including aquatic resources and ecosystems) on a sustainable basis” and its three specific objectives, as presented in the logical framework in Annex 2. The project has nine outcomes (which are identical to the outputs) under these specific objectives and 17 indicators. Direct outcomes from the reconstructed TOC and likelihood of impact using the ROTI analysis are also used for evaluation of Effectiveness.

103. The MTE assigned an overall rating on Effectiveness of moderately unsatisfactory, in view of substantial concerns about delivery on the SAP and demonstration projects. Nevertheless, the MTE expressed optimism to deliver the key project outcomes (TDA and SAP) if resources and effort were focussed on these areas and if the project was extended by at least 6 months.

104. Objective 1: Build capacity, improve knowledge, enhance stakeholders' involvement to support the effective management of the VRB. Under this objective there are three outcomes with nine indicators in the logframe. The MTE assigned an overall rating to achievement of Objective 1 of moderately satisfactory.

105. The terminal evaluation identified two direct outcomes under this objective from the reconstructed TOC:

- i). National and regional institutions and stakeholders have improved capacity to manage the VRB;
- ii). Managers and decision makers have improved access to data and information to support management of the basin.

106. The project adopted a multi-pronged approach to strengthening the capacity of national and regional stakeholders to manage the VRB: development of the TDA and SAP, directly involving key stakeholders in the TDA and SAP process and other project activities, providing training in the TDA and SAP methodology and in other areas such as IWRM and International River Basin Management, developing management tools and instruments to address transboundary issues, improving knowledge through the TDA and a number of thematic studies, facilitating access to data and information required



for planning and monitoring the condition of the basin, raising awareness about the transboundary issues affecting the basin and their root causes, and demonstrating measures to combat transboundary environmental degradation in the basin. In particular, the SAP itself will increase capacity of the countries to manage the basin (see Objective 3). As stated in the SAP document, the long-term objective of the SAP is “to enhance the abilities of Volta Basin countries to plan and manage the basin’s water resources on a sustainable basis”.

107. A range of stakeholders benefited from capacity strengthening, from government ministries responsible for the environment and for water resources, other national agencies responsible for water (e.g., WRC of Ghana), regional bodies such as GWP-WA, NGOs (e.g., PAPADEV), IUCN, and local communities in the demonstration areas.

108. An important achievement was raising awareness at national and local levels about transboundary issues and the need for collaborative management of the VRB. The project countries all have national agencies for management of their water resources, but these largely focus on the national scale. Respondents were highly appreciative of the contribution of the project to improving knowledge about the transboundary nature of the basin and the transboundary issues confronting it, and fostering dialogue among the countries for joint management of the basin. Policy briefs were also prepared by the PMU and presented during frequent courtesy visits by the project manager to national authorities (ministers, deputy ministers, and directors) in charge of water resources and the environment. During those visits, key issues related to the Volta River Basin including the implementation of the GEF Volta Project (TDA/SAP process, implementation of demonstration projects, Volta Basin Information Sharing System, and capacity building activities) and the operation of the VBA were discussed and guidance was provided by the national authorities. From the interviews, however, it was apparent that in general awareness-raising about transboundary issues focused on professionals at the technical level, and not on policy makers at high political levels. This needs to be addressed if the SAP is to be taken up meaningfully in policy and planning processes within the countries. The SAP and APNP-VRBs have also provided the countries and the VBA with tools and measures to sustainably manage the VRB. These measures need to be mainstreamed into national and regional policy frameworks and decision making processes. Engaging national institutions in the Volta Basin TDA/SAP processes has prepared them to participate in SAP implementation in the future.

109. At the local level, communities learned how their actions contribute to degradation of the basin and about measures that they should take to protect it. They were trained in several areas such as producing seedlings for reforestation and replanting of trees in degraded areas of the river banks and more efficient and sustainable methods of charcoal production. Through demonstration projects, local stakeholders were also trained in IWRM. Providing training and facilities for reducing the environmental impact of charcoal production while at the same time improving charcoal yields and income for producers was one of the major achievements at the demonstration site in Ghana (see Part IV Section B). One NGO (PAPADEV) was extending training to others in producing seedlings and reforestation techniques as well as sustainable charcoal production. Demonstration of technological measures to address common issues related to flood forecasting and waste water treatment has provided lessons and experiences that enhance the capacity of stakeholders to address these issues and to adapt and replicate these measures in other areas (see Objective 3 below).

110. While it is undeniable that one of the project’s greatest achievements was building capacity, as mentioned above, respondents felt that the use of external consultants for many of the technical activities reduced the potential impact of the project with respect to capacity building. It is recognized, however, that using external consultants was unavoidable in many cases due to the limited capacity within the countries. This situation could have been mitigated to some extent by having national counterparts work with the external consultants in order to strengthen their capacity through ‘learning by doing’. Further, in some cases there was no ‘handing over’ to national personnel by the consultants

before they left. Another concern was the high turnover of trained personnel, especially when they do not transfer the knowledge or skills acquired under the project. The TE consultants were informed, however, that although there may be a high staff turnover within specific agencies, the individuals usually stay within the same country or the region, so the capacity is not lost. During the country visits, the TE consultants also noted the absence of some persons who were involved in the project; they had moved on to other agencies or taken on other responsibilities. Several of the persons available for interviews were not directly involved in the project or only marginally so, and had limited knowledge about the project. Loss of capacity has implications for sustainability of project outcomes, and the participating governments and the VBA are urged to continue capacity strengthening activities and take measures to retain capacity in the countries and the region.

111. In terms of the second outcome, the VB-ISS was developed with support from UNEP/DEWA, and is regularly populated with data (See Part IV Section B). It was used as a reference tool for the training of VBO staff and national and regional partners. The VB-ISS will contribute to the VBO, which is a decision support and communication tool that will help the countries overcome problems faced in the collection, analysis and dissemination of water related geo-information and strengthen their capacities for ensuring water security. It will fill an important need for timely data and information required for management and for monitoring the health of the basin.

112. The achievement of Objective 1 is rated as **Satisfactory**.

113. Objective 2: Develop river basin legal, regulatory and institutional frameworks, and management instruments for addressing transboundary concerns in the Volta River Basin and its downstream coastal area. This objective aimed to finalize and agree on a TDA and to contribute to the development of a SAP, and APNP-VRB. The logframe includes four outcomes with six indicators under this objective. One of the indicators is 'VBA adopts SAP into their work plan', which the TE found was a premature expectation during the project as the SAP was endorsed right at the end of the project and the VBA needs time to incorporate it into its work plan. This process is in fact ongoing, and is an intermediate outcome in the TOC. The MTE assigned an overall rating to Objective 2 of moderately unsatisfactory because of substantial concerns about delivery on the TDA and SAP.

114. The terminal evaluation identified three direct outcomes under this objective from the reconstructed TOC in addition to the first order outcome of SAP endorsement at ministerial levels:

- i). Countries and partners have improved awareness and knowledge of and agree on the priority transboundary environmental issues, their root causes, and socio-economic consequences in the VRB and downstream coastal areas (TDA);
- ii). Decision-makers in all the countries recognize the need for and endorse management measures and legal, regulatory, and institutional reforms needed for sustainable management of the VRB and downstream coastal areas (SAP);
- iii). Countries endorse Action Plans for the National Parts of the VRB.

115. The TDA/SAP process provides a mechanism for improved and collaborative decision-making at the regional level, and is a prominent feature of many GEF IW projects. The TDA is a scientific document that is a necessary precursor to the SAP. Development of the TDA is a highly participatory process through which the priority transboundary environmental issues and their root causes are identified and agreed by all the countries (mainly through the PSC). Engagement of all key stakeholders in the process facilitated their agreement about the key issues and causes, and their eventual endorsement of the TDA. A number of technical experts and partners were also involved in the TDA process (such as UDC, IUCN, GWP-WA). Part IV Section B above describes the activities and outputs related to preparation of the TDA and SAP.

116. The TDA identifies and assesses three groups of environmental concerns in the VRB (water quantity, water quality, and degradation of ecosystems including coastal erosion) and their root causes along with cross-cutting concerns notably those related to governance and climate change. The most

striking transboundary concerns are related to water quantity and seasonal flows, which is evident in localized water shortages, seasonal shortages, and floods. Many of the key cross-cutting concerns are related to governance, specifically the policy, legislative and institutional constraints that undermine effective water resources management in the basin, both at the national and regional levels. Another cross-cutting concern identified in the TDA is climate change, which is considered a highest priority cross-cutting concern that can affect all sectors in the basin. All respondents were of the view that the TDA is a valuable information resource that has helped countries to understand the transboundary nature of the major environmental problems in the basin and the need for collaboration among countries and sectors in addressing them. This is an important outcome considering that current efforts to manage the basin consist mainly of national and sectoral approaches.

117. Using the TDA as the scientific basis, the project developed the regional SAP. The Volta Basin member countries and partners defined the vision for this regionally negotiated SAP: “to create a basin shared by willing and cooperating partners managing the water resources rationally and sustainably for their comprehensive socioeconomic development”. To realise this vision, the long-term objective of the SAP is “to enhance the abilities of Volta Basin countries to plan and manage the basin’s water resources on a sustainable basis”. To reach this objective, the SAP includes 33 prioritized actions to reinforce the institutional management capacities of the Volta Basin countries and the VBA, to improve knowledge and monitoring of environmental and water resources (one of the pillars of IWRM), and physical actions for the protection and restoration of the environment, all of which are linked to the priority problems identified in the TDA. The prioritized actions compliment the IWRM plans of the countries involved. Relevant stakeholders and the SAP team discussed and finalized these actions along with the formulation of the EQOs, and the indicators and targets for the actions.

118. The involvement of stakeholders in the development of the TDA as well as the ASNP-VRB and the SAP was a critical component to achieve buy-in and to create the basis for their effective implementation in the future. As the SAP must be endorsed and implemented by the governments of the basin countries, basin stakeholders ranging from national and local authorities to regional and international institutions were involved throughout the SAP development process. As previously mentioned, the Volta River Basin SAP was validated at the final meeting of the PSC in November 2013 and endorsed by all the ministers responsible for the environment and water resources in each of the six VRB countries between April and May 2014. Endorsement by the ministers in charge of water resources bodes well for coordination of SAP implementation by the VBA, as they constitute the VBA Council of Ministers.

119. Coordination and oversight of SAP implementation is the responsibility of the VBA, which is well-placed to carry out this function as the regional body mandated by the governments of the basin countries to coordinate management of the basin. A number of elements of the SAP are included in the VBA Strategic Plan, which will facilitate its implementation (see Section D on Sustainability). The priority actions of the SAP are to be implemented within the framework of the Volta Convention. Stakeholders interviewed agreed that the SAP will foster collaborative management of the VRB, but nearly all of them particularly within the government ministries indicated the need for financial resources for SAP implementation in their respective countries. While in general there was a high level of awareness among stakeholders about the project and the TDA and SAP, several persons interviewed were not very familiar with the project partly because they themselves were not involved in it or information was not disseminated within the countries by those who were involved. Such situations can hamper SAP implementation in the countries and further lobbying and awareness-raising are required for successful SAP implementation. At the time of the country visits, the countries had not yet received the final printed TDA and SAP as these documents had only just been received by the VBA for distribution. It is important that these documents are widely distributed to stakeholders at all levels. Local communities

were not aware of the project outcomes including the demonstration projects, and the governments are urged to prepare information briefs in the local languages for distribution to these communities.

120. The achievement of Objective 2 is rated as **Highly satisfactory**.

121. Objective 3: Demonstrate national and regional measures to combat transboundary environmental degradation in the Volta Basin. Under this objective demonstration projects were executed across the project countries (See Part IV Section B). The revised logframe includes one outcome (the second was omitted following the MTE) with one indicator. The MTE assigned an overall rating to Objective 3 of moderately unsatisfactory because of limited progress at the time of the MTE.

122. The terminal evaluation identified two direct outcomes from the reconstructed TOC:

- i). Decision-makers are aware of replicable measures to address common transboundary issues in the VRB;
- ii). Local communities are aware about how their actions impact the VRB and are better equipped with experience and knowledge about measures to address degradation of the VRB and its natural resources.

123. While the GEF Volta project successfully demonstrated measures to address certain challenges faced by the local communities, the original intention to implement joint transboundary demonstration projects between pairs of countries was not fully realized due to various factors (see Section IV B). Nevertheless, the demonstration projects yielded valuable experiences and lessons that will facilitate restoration of degraded hotspots and adaptation, replication, and upscaling in other areas, including through incorporation of lessons in and implementation of the SAP. Decision-makers interviewed were aware of the demonstrated measures and indicated that they intended to incorporate them in national management plans for the basin. Further details on the demonstration projects are provided in Part IV Section B. Demonstration projects 1 (Burkina Faso and Mali) and 2 (Togo) focused on technological measures such as an empirical early warning system for floods to assist in predicting floods and mitigate their socio-economic effects and environmental impacts; installation of hydrological equipment for monitoring of water resources in the national part of the basin; and construction of wastewater treatment facilities to restore water quality and improve the living conditions and health of the community. Demonstration project 1 also contributed to the preparation of two major agreements funded by the IUCN/GWI Sourou project, which were signed by the two countries. These agreements are good case studies of transboundary collaboration in water resources management. Another 'transboundary' achievement was establishment of bilateral committees between the countries. Through demonstration project 3 in Ghana and Côte d'Ivoire, and Demonstration project 2 in Benin, local stakeholders learned about protection of the river banks through participatory reforestation programmes and farmers have already started to plant further away from the banks. Community members and NGOs gained experience in producing seedlings and in reforestation and are available to offer such services to others. In Ghana, more profitable and efficient methods of charcoal production were introduced and adopted by charcoal producers.

124. The project conducted several capacity building, sensitization, and awareness campaigns in the demonstration areas targeting local NGOs, women's groups, village chiefs, elders, and opinion leaders among others. Topics covered included sanitation, forest and water resources management, land degradation, bush fire control, and use of chemicals in fishing and mining. Communities visited by the TE consultants showed a high level of knowledge and awareness about the state of the basin, the impact of their actions as well as of climate change, and measures to address certain problems especially those related to floods, water scarcity, bush fires, and deforestation. They attributed much of this increase in knowledge and awareness to the GEF Volta project. The TE consultants also learned that some neighbouring communities were aware of the demonstration projects and had expressed interest in

adopting some of the approaches (e.g., tree planting and sustainable charcoal production in Ghana and Benin).

125. The achievement of Objective 3 is rated as **Moderately satisfactory**.

#### ***Likelihood of impact using RoTI and based on reconstructed TOC***

126. The likelihood of achievement of the project impact is examined using the RoTI analysis. For this analysis, the project impact is stated as ‘Achievement of EQOs leads to improvement in environmental condition of the VRB and downstream coastal areas and increase in global environmental benefits and ecosystem services for stakeholders.’ This implies increased access to freshwater, equitable and sustainable management of water resources and other connected natural resources in the Volta River Basin and its downstream coastal area, reduced land base pollution, reduced ecosystem degradation, reduced land degradation, and reduced loss of biodiversity (which are indicators for the long term objective stated in the project logframe in the Inception Report). The project impact in the TOC is consistent with the vision of the SAP: ‘to create a basin shared by willing and cooperating partners managing the water resources rationally and sustainably for their comprehensive socioeconomic development’. Annex 9a illustrates the causal chain towards environmental impacts for the GEF Volta Project. A summary of the results and ratings of the RoTI are given in Annex 9b.

127. The three project strategies are based on the synergistic strategic objectives of the project to build capacity and enhance stakeholders’ engagement to support effective management of the basin, develop legal and institutional frameworks and management instruments for addressing transboundary concerns in the basin, and demonstrate measures to combat transboundary degradation. The project outcomes in the reconstructed TOC are derived from the outcomes used in the PIRs and terminal report.

128. The SAP contains seven EQOs that define the level of environmental quality targeted by the SAP, and describes actions and strategies to achieve them. The 33 priority actions in the SAP are categorized into four components that reflect the priority areas of concern: Ensuring water availability, Conserving and restoring ecosystem functioning, Ensuring adequate water quality, and Strengthening governance and improving the quality of information for resource management. As stated in the SAP document, “it is anticipated that achieving the aims of the actions outlined in this SAP will contribute to protecting human health, decreasing poverty levels, and conserving and protecting water resources in the Volta Basin, as well as protecting biodiversity and ecosystem functions”. Based on this, the intermediate states are formulated to reflect the uptake and mainstreaming of the SAP and EQOs into national and regional planning processes for management of the basin, including the VBA Strategic Planning Framework, as well as the sustained and reinforced capacity of the countries to implement the SAP and national action plans. A number of drivers and assumptions are defined in the RoTI analysis (Section I).

129. The overall likelihood of impact achievement was rated on a six-point scale by the MTE as ‘Moderately unlikely’ (DC), while the terminal evaluation assigned a rating of ‘Highly likely’ (AA). This rating is based on the following observations:

(i). Outcome rating (A): The project’s intended outcomes were delivered, and were designed to feed into a continuing process, with specific allocation of responsibilities after project funding. As described above, the project objectives and outcomes were achieved. Further, the project’s intended outcomes were designed to feed into continuing processes (such as development of the VBA Strategic Planning Framework and Water Charter; SAP implementation at the national and regional levels). Regarding allocation of responsibilities following the end of the project, the VBA has been designated as the principal institution responsible for the overall coordination, implementation, and oversight of the SAP (as agreed by the GEF Volta Project PSC at its final meeting). The VBA will act under its Council of

Ministers, which, in addition to the ministries responsible for water resources, will include the ministers in charge of the environment from each of the Volta Basin countries.

(ii). Rating on progress toward Intermediate States (A): The measures designed to move towards intermediate states have started and have produced results, which clearly indicate that they can progress towards the intended long term impact. Measures designed to move towards intermediate states and eventual impact are evident, for instance, in the uptake of the SAP by the VBA in its Strategic Planning Framework and a number of the SAP actions in national frameworks as well as preparation of a World Bank/VBA initiative for SAP implementation. Behavioural changes are also evident, for example, farmers in the demonstration areas have started to increase the distance between their agricultural farms and the river banks and there is reduced use of chemicals for fishing and agriculture (although the TE was unable to quantify this).

130. Based on the above, the overall rating for Effectiveness is **Satisfactory**.

#### **D. Sustainability and replication**

131. Sustainability focuses on financial, socio-political, institutional, and ecological factors conditioning sustainability of project outcomes. Efforts and achievements in terms of replication and up-scaling of project lessons and good practices are also assessed. It must be recognized, however, that the level of sustainability and replication is not homogenous across all the partner countries, because each country has its own specific conditions that would determine its ability to sustain and replicate the project outcomes. The MTE assigned an overall rating to sustainability of moderately unsatisfactory.

#### ***Financial resources***

132. Financial resources are required for SAP implementation in the countries as well as to support the VBA, which is tasked with coordination and oversight of SAP implementation. The SAP includes budget estimates and sources of financing of recurring costs for each of the 33 actions. According to the SAP document, the budget for SAP implementation is estimated at around US\$228 million. A number of potential donors, partners, and financing mechanisms are identified in the SAP document. Major sources of funding include national and municipal budgets and national financing mechanisms, innovative financing mechanisms, and bilateral and international donors (details are given in the SAP). As reported by the MTE, it is uncertain whether countries will be able to mobilise the required counterpart funding and co-finance for a follow on project due to the economic downturn and competing priorities for government funding. This was confirmed during visits to the countries by the TE consultants, when many respondents expressed the need for financial support to implement SAP actions or to replicate and upscale experiences from the demonstration projects. The level of financial resources available is variable across the countries. Basin countries are adopting some of the results and elements of the SAP in their national water resources management plans, which should facilitate financial sustainability to some extent. For instance, the Government of Benin plans to contribute to a joint project worth 3 million francs (US\$5 million) with the Government of the Netherlands to protect the Volta River banks in this country. The VBA will also need sustained financial support for its operations. Currently, all its member countries make annual contributions although there have been delays by some of the countries to fulfil this obligation.

133. There are excellent prospects for international funding for SAP implementation in view of the continued interest of bilateral and multilateral donors in integrated water resource management and land degradation on the African continent. The GEF/World Bank Volta River Basin SAP Implementation Project (VSIP) has been approved and will focus on implementation of a number of SAP actions. In fact, a workshop to launch the VSIP is scheduled to be held in Ghana in February 2016. UNEP is also exploring

possible projects for implementation of specific components of the SAP to be funded by bilateral and international donors. One such initiative is a joint project with IUCN that is being developed for GEF funding. There are also good prospects for other partners to include elements of the TDA and SAP in ongoing and planned projects. For example, the GEF Floods and Droughts Management project, which is being implemented from 2014-2018 by UNEP as the implementing agency and DHI and the International Water Association as the executing agencies, includes the Volta Basin as one of its three pilot areas. The initiation of this project was closely linked to the final PSC meeting (Lomé, 2013) and links with some of the key issues raised in the TDA and SAP. Another avenue for funding is the Cooperation in International Waters in Africa (CIWA), which is a multi-donor trust fund established in 2011 by the World Bank and the governments of Denmark, Norway, Sweden, the Netherlands, and the United Kingdom. CIWA supports riparian governments in Sub-Saharan Africa and has an ambitious target of mobilizing \$200 million for cooperative transboundary water management and development over ten years.

134. The prospects for financial sustainability are considered **Highly likely**.

### ***Socio-political factors***

135. A number of socio-political factors that present a risk to sustainability were identified in the project document, notably conflicts, civil strife, political unrest, and localized disputes caused by transhumance. Political unrest in Côte d'Ivoire and insecurity in the project area in 2010 and early 2011 stalled the implementation of the demonstration project in the country and validation of the national TDA. Burkina Faso and Mali have also had their share of political instability and security concerns. Conflicts can reduce the prospects for sustainability at the national level and the effectiveness of regional processes. While at present the countries are relatively stable, this region can be prone to socio-political upheavals, for example, around the time of national elections, and terrorist activities.

136. A number of cultural practices such as hunting, shifting cultivation, burning of bushes to clear land for agriculture and hunting, pastoralism and livestock grazing, and transhumance represent significant risks to sustainability in localized areas and need to be managed to reduce their impacts on the basin's natural resources. Transhumance across national boundaries, a transboundary problem, and ensuing conflicts between migrants and indigenes over fishing, farming, animal grazing, and access to land are of major concern. The Volta basin SAP includes actions such as the creation and marking of transhumance corridors to reduce conflicts and limit the degradation of natural resources from this phenomenon. The land ownership regime (e.g., private ownership of land along the river banks) in some countries can also affect implementation of management measures and sustainability of outcomes, and has to be taken into account in management of the VRB.

137. Differences in the legal framework among the countries can also potentially affect sustainability. For example, while charcoal production in the demonstration area is prohibited and enforced in Côte d'Ivoire, the contrary prevails in Ghana. Similarly, fishing in the Pendjari forest reserve is banned in Benin but allowed in Burkina Faso, which can also cause tensions between the communities. Addressing these issues is important for developing peaceful and effective regional cooperation. It is therefore recommended that in future the development of transboundary projects should be guided by similar interests taking into account similar situations and conditions in the participating countries.

138. As discussed in Part IV Section B, the prospects for sustainability at the local level can be improved if users derive concrete benefits. For example, introduction of more efficient technology for charcoal production increased charcoal yield and income. Such tangible benefits are very effective incentives for the local communities to adopt sustainable practices. The TE learned that other charcoal producers were encouraged to adopt such practices. On the other hand, lack of sustained benefits to users can stall progress, as seen in the reforestation demonstrations when local communities discontinued maintenance of the reforested areas because they were no longer receiving financial compensation

following the end of the project. Furthermore, they did not anticipate any concrete benefits from the reforested areas in the future. Communities would have preferred that fruit trees were planted instead as these would have given them a source of food and income on the longer term. This underscores the importance of considering the needs and livelihoods of local users in developing management measures for the Volta Basin.

139. An important prerequisite for socio-political sustainability is buy-in and ownership of the project and its results by national and regional stakeholders. The MTE found a low level of buy-in and ownership in the countries at the time of the MTE, but this situation changed drastically in the post-MTE period. The PSC at its fifth meeting recommended that the SAP should be endorsed by both the Minister in charge of water and the Minister in charge of the environment in order to add value to the document and to demonstrate the level of national commitment and support for the SAP. Validation of the national and regional TDAs by the countries and endorsement of the SAP (along with the APNP-VRBs) by the environment and water resources ministers of all six basin countries indicates a high level of buy-in and ownership with good prospects for political sustainability. In addition, ratification of the VBA Convention by the basin countries shows that in principle they have the political will to embark on collaborative management of the basin.

140. The rating on socio-political sustainability is **Highly likely**.

### ***Institutional factors***

141. Sustainability can be seriously jeopardized if the required institutional framework is weak or absent. Fortunately, the Volta region possesses a strong institutional foundation consisting of bodies at the local, national and regional levels. Notable among the latter is the VBA, which was established in 2007 following approval of the Convention and the Statutes for the VBA in July 2006 by the Ministers responsible for water resources in the six Volta basin countries. The Convention was subsequently signed by the six Heads of State in January 2007 and the VBA Statutes by the Council of Ministers in November 2007. The Convention entered into force in August 2009 following ratification by the basin countries between October 2007 and June 2009. The Volta Basin Convention and Authority provides a framework for institutionalizing the project results, notably the TDA and SAP, and for building on these. At its 5th and final meeting held in Lomé in November 2013, the GEF Volta Project Steering Committee recommended that the VBA should coordinate the implementation of the SAP and that the project's assets be handed over to the VBA. Prior to this, the GEF Volta project was appointed to and signed the VBA Framework of Co-operation of the Technical and Financial Partners (CGPTF) in April 2010.

142. The VBA is in the process of integrating the SAP into its strategic planning framework and advancing the development of its Water Charter for the basin, which has been incorporated into the SAP. One concern is whether the VBA will have adequate managerial and technical capacity to implement the SAP. Currently, the VBA has a low staff complement, which must be addressed if the VBA is to effectively perform this function. According to the VBA Ag. Executive Director, recruitment of more staff is directly linked to financial contributions from the Member States, which only agreed to increase their contribution by 25% in 2014 despite a proposal of a minimum of 100% increase. The VBA member countries must ensure that they make their annual financial contributions to the VBA in a timely manner. Developing partnerships with other institutions with the required managerial and technical competencies as well as hiring consultants can help to address the VBA capacity gaps, but this in itself has financial implications. Within the region there are a number of other regional and international institutions with ongoing or planned initiatives in the Volta basin and strategic partnerships will need to be developed with these institutions. As mentioned above (Financial sustainability) there are good prospects for financing SAP implementation by the GEF and the World Bank and through the initiatives of other partners.



143. At the national level, all the basin countries have ministries or agencies responsible for the environment and for water resources. In Ghana, for example, in addition to the Ministry of the Environment, there is the Environmental Protection Agency and two main agencies responsible for water resources, one of which has specific mandate for the Ghanaian Volta (Volta River Authority); the other agency is the Ghana Water Resources Commission. A concern in the countries, which do not augur well for IWRM, is the dichotomy between the respective mandates of the environment and water resources agencies and the limited degree of interaction and dialogue between them although this situation is changing. Other national agencies that can influence development in the VRB such as those responsible for agriculture, forestry, and energy will also have to be engaged. The VBA is well placed to foster closer collaboration among these agencies in managing the basin. As previously discussed, the high turn-over of trained personnel within the national agencies and associated reduction in capacity can affect the ability of these agencies to effectively engage in management of the basin.

144. At the local level there are a number of NGOs (e.g., PAPADEV in Ghana and Eau Vive in Togo) and community based organizations with projects and activities related to sustainable development and natural resources management in the basin. These have an important role to play in sustainability particularly in replicating lessons and experiences from the demonstration projects, implementing measures at the local level, and influencing changes in behaviour among local users of the basin.

145. The rating on institutional sustainability is **Likely**.

### ***Environmental factors***

146. Achievement of the EQOs elaborated in the SAP will ensure environmental sustainability (but this is contingent on the mainstreaming of the EQOs in national and regional policy frameworks and effective implementation of the SAP). One factor that may undermine environmental sustainability (as it is largely outside the control of the basin countries) is climate change and its impacts on the basin such as increased water scarcity. The TDA recognizes climate change as a cross-cutting factor that in combination with the identified priority issues will pose a real threat to sustainable development of the Volta River Basin and the integrity of its natural resources, especially as these impacts are projected to increase in the future. In view of this, the SAP incorporates actions such as assessing the vulnerability of the Volta Basin's natural resources and the potential impacts of climate change on these resources, which aim to promote understanding of the basin's ecosystems, including their capacity for carbon storage, and how they are likely to respond to climate change. Other SAP actions aim to identify appropriate adaptation measures in response to climate change impacts on the water resources of the basin. These measures are expected to increase ecological and human resilience to climate change impacts.

147. Environmental sustainability could be threatened by other factors including grazing by livestock, transhumance, and uncontrolled bush fires, all of which are common in the basin (see socio-political sustainability above). The SAP includes actions to address these issues.

148. The rating on environmental sustainability is **Likely**. The overall rating for Sustainability is the lowest of the rated sub-criteria and is therefore given as **Likely**.

### ***Catalytic role and replication***

#### **Catalytic role**

149. The conventional approach to managing the transboundary Volta River Basin has been largely sectoral approaches at the country level. From the start the foundational GEF Volta project was expected to play an important catalytic role towards joint management of the basin by strengthening

the capacity of stakeholders to collectively manage the basin through, for example, identifying national and regional priorities as well as management actions and legal, policy and institutional reforms; improving the knowledge and information base; and demonstrating solutions to common environmental problems. Two of the project's greatest achievements - raising awareness about the transboundary nature of the basin and the need for collaborative management among the countries, and fostering dialogue among different groups of stakeholders- will have a catalytic effect towards the common goal of collaborative management of this transboundary basin. At the national level, the NICs have provided a good framework for inter-sectoral collaboration and stakeholder engagement, although the extent to which these have continued to function is variable across the countries. The APNP-VRBs, which are integrated into the SAP, complement existing national IWRM plans and processes in all the basin countries. There is thus good potential for implementation of the APNP-VRBs in the countries.

150. At the regional level, the project has played an important role in supporting the VBA, and uptake of the SAP in the VBA's strategic planning framework is expected to contribute to catalysing and accelerating SAP implementation. The project has also attracted interest from potential donors such as the World Bank as well as from other partners for implementing SAP actions.

### Replication

151. In the context of GEF projects, replication is defined as lessons and experiences coming out of the project that are replicated (experiences are repeated and lessons applied in different geographic areas) or scaled up (experiences are repeated and lessons applied in the same geographic area but on a much larger scale and funded by other sources). The demonstration projects addressed certain environmental issues that are common and widespread in the VRB, such as deforestation and degradation of the river banks, contamination of water resources from untreated wastewater, and vulnerability to flooding in some areas. This can promote replication and scaling up at local, national and basin levels in areas where these issues are prevalent. During the life of the project exchange visits should have been organized with the other countries to share experiences and lessons, as they face similar problems with respect to degradation of the basin and its natural resources. This was a missed opportunity to promote replication although lessons learned from the three demonstration projects served as reference for the identification and prioritization of the Volta SAP actions and the preparation of the action sheets.

152. Lessons and experiences from the demonstration projects are incorporated in the SAP actions, which will facilitate replication in other areas. Apart from the results of the demonstration projects, many of the SAP actions are planned to be implemented throughout the entire basin or in multiple areas in the basin, as described in the SAP Action Sheets. As discussed above (Financial sustainability), adequate financial resources will be required for replication and upscaling.

153. The rating on catalytic role and replication is **satisfactory** based on the foundational nature of the project and good potential for catalysing action towards collaborative management of the basin and for replication of demonstrated and other solutions, including through SAP implementation.

154. The overall TE rating for sustainability and replication is **Satisfactory**.

### **E. Efficiency**

#### ***Cost effectiveness***

155. A number of measures contributed to cost-effectiveness of the GEF Volta project, including:

*Hosting of the PMU by WRC in Ghana*

156. The PMU was hosted by the WRC in Ghana, as part of Ghana's contribution to the project. The Commission also provided logistical support including transport to visit the demonstration project sites in Ghana. In addition, the Ghana Forestry Commission provided support such as office space at the demonstration project site in Bole.

#### *Strategic partnerships*

157. A prominent feature of the GEF Volta project was the establishment of strategic partnerships for the conduct of specific activities with different organizations with ongoing programmes and initiatives in the basin (See Part IV F, Partnerships). These ranged from regional (e.g., VBA) and international organizations (IUCN, GWP) and national agencies from both within the basin (e.g., WRC) and externally (e.g., SIAAP) to local NGOs (KITE, PAPADEV). The VBA in particular was a key partner and actively collaborated with the project in various aspects including stakeholder engagement, capacity development for regional and national stakeholders, and hosting the server for the VB-ISS. Some of these partnerships (e.g., IUCN and SIAAP) also represented co-finance contributions to the GEF Volta project. At the local level civil society organizations that participated in the project included Eau Vive in Togo, and KITE and PAPADEV in Ghana. Community leaders (project champions) helped to mobilise their communities for activities at the demonstration sites including awareness-raising. In the Ghana Bole demonstration project, PAPADEV implemented a 'Training of trainers' programme, which was very effective in expanding capacity building to other stakeholders.

#### *Utilizing existing data and information*

158. The preparation of the TDA and SAP was reliant on existing national and regional data and information, as well as the knowledge of local, national, and regional experts. It also built on the experience of the PMU and wider technical support in other GEF IW projects and in integrated water resources management in West Africa. Use was also made of technical forums, awareness creation workshops, and stakeholder meetings, among others, to bring together experts/stakeholders/scientists from the six countries to share experiences and information. Further, adopting a regional approach to address common transboundary issues resulted in cost saving and increased efficiency. In addition, combining the TDA and SAP development with IWRM processes in the countries reduced the demands and rigour of reinventing approaches to understand the root cause of the problems in the basin and identify solutions, and contributed to increased efficiency.

#### *Timeliness of execution*

159. The MTE noted the changes in the project context and its implication for timely execution of project activities. The start of project implementation was delayed because of the one year period it took to put together a project team. This affected the original implementation schedule and resulted in the need for a budget revision, which was approved in 2010 with the first extension of the project. Another extension was approved in 2012 and resulted in an increase in PMU staff cost of roughly 20%, although this was offset by a decrease in the budget allocated for consultancies. The 'no-cost' extensions came with 'hidden' costs that were incurred by the implementing and executing agencies due to time demands on personnel. It was obvious that the initial planned duration was inadequate for a project of this scope and complexity.

160. Completion of the TDA was affected by a number of factors such as difficulties in accessing national data, resignation of the regional TDA consultant, and delays in submission of feedback from

national partners and UNEP. This in turn delayed development of the SAP, and it was only through dovetailing the TDA and SAP development processes and extending the project that both the TDA and the SAP were completed.

161. The initiation of the demonstration projects was also delayed as a result of late signing of the MOAs with the governments, owing to UNOPS' lengthy administrative and legal procedures and other factors (see Part IV section B). As expected, these delays had knock-on effects on the implementation of the demonstration projects. The MOAs between the project and participating Governments were signed in different years (2010, 2011, and 2012), which meant that some of the demonstration projects had barely one year for execution while others had about three years. The national project implementation bodies were only established after the MOAs were signed and inception reports prepared by each national demonstration project team.

162. The MTE rating for efficiency was moderately unsatisfactory, in view of delays in accomplishing certain targets and the need for a further project extension to ensure delivery of the SAP. The TE overall rating of efficiency is **Moderately Satisfactory**, reflecting the delays encountered and need for two extensions on the one hand and the measures taken by the project team to address ensuing problems on the other.

## **F. Factors Affecting Performance**

### ***Preparation and Readiness***

163. The GEF Volta Basin project had an extensive preparation period. A PDF-A grant was awarded in May 1999 followed by a PDF-B grant in February 2000. The latter was used to prepare a preliminary TDA and causal chain analysis and to develop a draft SAP. In April 2003 the first draft of the project brief was submitted to the GEF Council, who approved the project in May 2003 but requested further development of the demonstration projects. To this end a supplemental PDF-B grant was awarded and the project was resubmitted in March 2006 and endorsed by the GEF CEO in August 2006, more than three years following approval by the GEF Council.

164. As discussed by the MTE, this extended development period affected the quality at entry of the project with repercussions for the project's relevance and institutional set up, in view of the creation of the VBA in June 2006. As a result, the project had to be substantially revised during the inception phase, with some of the original activities cancelled or reassigned. At the national level, the project was affected by the turnover in personnel of the government partners and associated loss of institutional memory. The delay also affected the financial status of the project as a result of inflation, the falling value of the US dollar, and revised co-finance commitments from the Volta basin countries.

165. Implementation arrangements and roles of the various project partners were adequately defined. At the project level these consisted of the implementing agency, executing agency, UDC, PSC, and PMU, and at the national level NICs, NFPs, NOFPs, and NPCs. One of the early challenges was that the division of labour between UNEP and UNOPS was not clearly defined, which resulted in some strained relationships, but this improved following the MTE. The limited capacity of the country teams for management of the demonstration projects continued to affect delivery and required some training by UNOPS. The project's logframe, workplan, and budget were revised during the inception phase and approved by the PSC at its first meeting. The objectives and components were clear, but in retrospect, the project's initial planned duration and consequently the budget was inadequate for a project of this scope and complexity.

166. The MTE assigned a rating on preparation and readiness of **Moderately Satisfactory**, which is retained in the terminal evaluation.

## ***Implementation approach and adaptive management.***

### *Regional level*

167. The project document and inception report presented a comprehensive description of the institutional arrangement for project implementation and execution, including the agencies and structures concerned and their respective roles. This was largely adopted, with two significant changes made - scaling back the role of UDC and suspension of the project TTF, which is discussed below (paragraph 181).

168. Paragraphs 59-60 describe the establishment of the PMU and its staffing. The already small PMU was reduced as a result of the no-cost extension to December 2013 and budgetary reallocations, but it remained fully functional. As pointed out by the MTE, the relatively low level of authority of the PMU had negative impacts on project planning and governance, and affected the PMU's relations with partners and service providers. This improved in the latter part of the project's lifetime. Project staff were trained and regularly updated on UNOPS policy, administrative instructions, procedures, rules and regulation (including UN mandatory courses and project management certification), which helped to bolster the limited capacity of the PMU.

169. The PMU reported to and was supported administratively by UNOPS. As pointed out by the MTE, there was a mismatch between the PMU's technical orientation and UNOPS' operational orientation. The UNOPS officer responsible for the project revealed to the TE consultants that he was not qualified to supervise the RPC with respect to the technical aspects, and relied on the UNEP/GEF Task Manager for substantive issues. The RPC was highly qualified and possessed excellent technical skills and considerable regional experience, but a substantial part of his responsibilities was related to management of the project. However, as indicated by UNOPS, the RPC assumed the role of chief technical adviser (CTA) rather than project manager, had limited knowledge about UNOPS procedures, and required considerable mentoring from UNOPS. This led to issues such as inadequate financial oversight and delays in reporting and processing of payments by the PMU particularly in 2009 and 2010. To address this, the RPC was held accountable for project management and asked to play a more active role in financial oversight by UNOPS. He was given training in UNOPS procedures, following which the situation improved. As discussed in the MTE and during TE interviews, the relationship between the PMU and UNOPS was initially strained as a result of delays and miscommunications, but this was subsequently addressed.

170. As was pointed out by UNOPS, failure to take into account the capacity for project management within the PMU was one of the inherent weaknesses of the project. For future projects the difficulty in finding an individual with both technical and project management skill sets, and the need to separate these functions must be recognized and addressed. Provisions must be made for this possibility, for example, contracting a CTA and a project manager to support the CTA. However, the GEF's rule that the project management fee must not exceed 10% will be a constraint to this kind of arrangement (although, as pointed out by UNOPS, the management fee covers the management apparatus of the executing agency, and not the project manager).

171. There was a perception in the PMU of 'micro-management' by UNEP, with UNEP's approval required for even small actions even though they were already approved in the annual workplans. This caused some delays in delivery, and affected morale in the PMU. Another issue that caused dissatisfaction among the PMU staff was their having had to work without remuneration for the administrative closure of the project and finalization of the TDA and SAP documents (see Part IV, Section F, Financial planning and management).

172. The PSC was established in early 2008, and comprised the two NFPs from each of the VRB countries and representatives from the implementing and executing agencies. The PSC held its first

meeting in May 2008, and thereafter held annual meetings from 2010-2013. The PSC approved the MTE report at its 4<sup>th</sup> meeting held in 2012 and recommended that the PMU implemented the MTE recommendations. In December 2012, the PSC agreed to extend the project to 31 December 2013 to accommodate the development and delivery of the TDA and SAP.

173. The coming into force of the Volta Basin Convention and establishment of the VBA could have had major repercussions for the project. But the project turned this situation to its advantage, strategically using the Convention and the VBA as a mechanism to facilitate implementation of both the project and the SAP, thereby ensuring sustainability of its outcomes. Following agreement by the PSC that the project would be implemented within the framework of the Volta Basin Convention, a collaboration framework between the project and the VBA was signed in April 2009. The VBA functioned as a policy guidance body and provided strategic orientation to the project. The long term objective of this collaboration was to ensure that the Volta Project outputs were integrated into the VBA work plan as a mechanism for the implementation of the Convention through the following areas:

- Mutual information, exchange of reference documents;
- Reciprocal invitations to attend key events (meetings, workshops, conferences, etc.);
- Coordination of respective activities;
- Organisation of joint activities; and
- Endorsement of the GEF Volta Project activities and outcomes by the VBA.

174. Engaging the VBA to lobby with the countries for SAP endorsement was instrumental in the SAP being endorsed by both the water and environment ministers of all the six countries. In addition to the VBA, a rich network of other institutions and organizations with a range of relevant programmes and activities as well as expertise and experience exists within the Volta region. The project built on this foundation, strategically teaming up with relevant partners for specific activities that helped to reduce costs and add value, for example, with IUCN for training of national partners in Togo, co-organisation of joint workshops with IUCN/PAGEV and the VBO on groundwater and the VRB-ISS, and with SIAAP for execution of the demonstration project in Togo (see Part IV Sections B, E, and F).

175. In terms of the technical approach, the project combined the GEF TDA/SAP approach and IWRM processes in the countries towards the creation of a knowledge base to develop the action plan for the basin. This innovative approach reduced the demands and rigour of reinventing approaches to understand the root cause of the problems in the basin and identify solutions.

176. The MTE expressed serious concerns about the delivery of the TDA and SAP as well as endorsement of the latter in the remaining time frame of the project, considering that the original time frame was already over-optimistic, the delayed start, and slow progress in the period preceding the MTE. Following the MTE, the project focused efforts on completion of the TDA and preparation and endorsement of the SAP, dovetailing the TDA and SAP processes (which are usually conducted in a sequential manner in GEF IW projects). This approach along with other measures such as a 'no-cost' extension greatly facilitated the completion of the two documents and endorsement of the SAP within the remaining timeframe.

#### *National and local levels*

177. Each country nominated two NFPs (a representative of the ministry in charge of water and a representative of the ministry in charge of environment). The involvement of national partners from these two ministries created the opportunity for a better application of IWRM principles and stronger dialogue and integration between the two sectors. According to the interviews conducted, however, in most of the countries there was little interaction and collaboration between these two ministries outside of the project, although this is slowly changing. In each country, one of the NFPs was assigned by the government to serve as the NPC. Three countries identified an NPC in the water agency and three in

the environment agency. Six NOFPs were appointed by national authorities to provide support to the NPCs to manage the project activities at the country level on a day-to-day basis. Their contribution was monitored by the PMU through the submission of monthly reports approved by the NPCs. In addition, a NIC comprised of key ministries and other stakeholders was established in each country. The role of the NICs was to guide project implementation at the national level, ensure inter-sectoral coordination, and help to facilitate sustainability including through engagement of a broad range of government agencies and civil society. The NICs met on an occasional basis and played an important role in SAP development. At the local level, management committees were established and local communities were closely engaged in the demonstration projects (see Part IV Section B).

178. National implementation arrangements functioned moderately well but have been affected in some countries by recurrent changes in nominated officers as well as limited human capacity and financial resources of the national partners resulting, for example, in the lack of coordination and feedback from national partners, and low motivation among national personnel linked to remuneration (see following paragraph). The limited capability and management capacity especially for execution of the demonstration projects and financial reporting was a major challenge (see Part IV Section F).

179. The request for salaries and non-payment of the national institutional focal points were recurring issues that were raised at PSC meetings. It was pointed out that the NOFPs were considered to be assistants to the NFPs and were remunerated while the latter were not. This resulted in general lack of motivation of the NFPs. According to GEF's policy national staff time is not covered by GEF funds, therefore this issue should have been resolved through cash contribution from the national governments, who pledged a total of US\$800,926 in cash co-finance (as indicated in the project inception report). The RPC was able to identify ways to compensate the NFPs, for example, hiring young graduates as assistants, who were motivated and given training, to support them; involving them in regional workshops and other meetings including at the demonstration sites, and providing small financial incentives to technical committees set up for specific studies.

180. Poor performance of certain consultants in terms of both quality and timing of deliverables had repercussions on overall progress. For example, the testing of the adapted hydrological model for the Sourou basin area (demonstration project 1) for flood forecasting was not satisfactory, which led to a contractual conflict between MCA Burkina Faso and the MCA consultant hired for this purpose. Coordination meetings/discussions involving the two national directorates, MCA Burkina Faso, and the PMU were organised without success. The budget was subsequently reallocated for other activities by national partners in Mali. The demonstration projects experienced delays in starting, which reduced the time available for their execution. In some instances this was aggravated by the onset of the rainy season, which hampered activities related to reforestation of the river banks. Delays were also encountered in arranging the no-cost extension of the MOAs due to UNOPS administrative and legal constraints and in the release of funds. Respondents were of the view that much more could have been accomplished had there been more time for completion of the demonstration projects. The approaches for implementation of the demonstration projects are described in Part IV Section B.

### *Technical support*

181. Technical support to the project was weak especially during the first semester. The RPC stressed in annual reporting that the technical capacity within the PMU was limited and needed to be strengthened; a concern that was also expressed by project partners. The idea of recruiting regional experts to provide technical support to the PMU when requested was approved by the PSC during its first meeting in 2008. The TTF was established in 2008 to provide technical support (reviewing consultancy TORs and reports, preparing the TDA, SAP, APNP-VRBs, and associated documents, and

providing technical and scientific advice). Potential task force members were identified by the PMU, approved by UNEP/DGEF, and appointed by UNOPS. The TTF consisted of six regional experts in the fields of water resources management, forestry/biodiversity, environment, land management and desertification, agronomy/economy and sociology. Because of budget constraints, UNOPS and UNEP/DGEF took a decision in 2010 to suspend the TTF until additional project outputs were forthcoming. As a result, project activities had to be carried out without technical support from regional experts as originally planned.

182. Another factor affecting technical support was the scaling back of UDC's role. According to the project document, UDC was to be contracted at the start of the project for 20 man months to provide technical support to the PMU. Delays were experienced in resolving differences regarding the most appropriate institutional modalities for engaging UDC, and agreement was reached on UDC's roles only in mid-2010. The UDC budget was reduced by 75% and a contract was concluded with UDC in August 2010 covering four months and related travel costs. UDC contributed an additional month as co-finance. This significantly reduced the technical support provided to the PMU as well as to the demonstration projects, which was aggravated by suspension of the TTF. The MTE recommended that UDC's technical support be refocused to TDA completion and SAP development.

183. Regional TDA consultants (team leader, water resources expert, ecosystems expert, governance expert and socio-economist) and national consultants (one consultant per country) for finalisation of the TDA were selected and participated at the regional TDA planning workshop held in Lomé in December 2000. In addition, SAP teams were established both at regional and national levels and a SAP regional inception meeting was held in Burkina Faso in July 2012. At the national level, thematic SAP groups were established, grant agreements signed with national institutions for implementation of the SAP process, and national planning workshops as well as thematic meetings organised between September and November 2012.

184. Other events affecting technical support to the project included resignation of the TDA team leader, who cited concerns about quality of inputs as a reason for his resignation. A new team leader was recruited by the PMU with the support of UNEP/DGEF and VBA. In addition, two TDA regional experts (water resources and ecosystems experts) could not complete their assignments. After several months' delay, a new ecosystems expert was hired and the water resources thematic report was prepared by the RPC.

185. As a result of the limited technical support to the project, it was necessary for the RPC and the UNEP Task Manager to devote a considerable amount of time to finalizing the TDA and SAP documents to ensure that they were of a high quality.

#### *Other constraints*

186. The project did not have a formal communication strategy, although Outcome 1.3 was 'Knowledge base expanded and basin-wide communication mechanism in place' (which in the log frame pertained to the VBA database and VBO). The language barrier was a major constraint to communication under certain circumstances. Five of the countries participating in the VRB project are Francophone and one Anglophone. The RPC and project secretary operated in both French and English, and simultaneous interpretation was provided at formal events such as PSC meetings but not at smaller technical meetings. Several respondents highlighted this issue as a constraint at such meetings. Technical reports have generally been translated, although there have been discrepancies in the English and French versions of the report.



187. As discussed in the Part IV Section B, the political crises in Côte d'Ivoire and security concerns in Mali severely impacted progress, particularly with respect to the TDA process and demonstration projects 1 and 3. This was, however, outside the control of the project.

188. The MTE assigned a rating of moderately satisfactory to implementation approach and management. The TE rating on this criterion is **Satisfactory**. The implementation structures at local, national, and regional levels were functional and generally able to adapt well to changing circumstances. Constraints such as inadequate technical support to the PMU and the language barrier did not have any major impact on delivery.

## ***Stakeholder Participation and Public Awareness***

### *Stakeholder Participation*

189. The project document acknowledged that successful implementation of the project depended on the active participation of stakeholders. Stakeholder involvement was an integral requirement for each project component, and there was a deliberate inclusion of the major stakeholders in all aspects of project implementation. According to the inception report, development of a stakeholders' involvement plan was planned for the first two quarters of project implementation. However, it was subsequently agreed that the VBA would develop this plan within the framework of its strategic plan (see Section on Output 1.2).

190. The primary stakeholders included Public Sector (ministries responsible for land and water resources, environment, tourism, planning, agriculture (forestry, fisheries), industry, community development, and education; Local government authorities); Private Sector (manufacturers/industrialists, hotel owners/managers, tour operators); NGOs (national trusts, conservation associations, women's organizations, national and regional organizations representing farmers, fisher-folk community-based organizations; Professionals (researchers, sociologists, medical practitioners, environmental managers, engineers, biologists, teachers, curriculum specialists, media practitioners); and the Public (traditional rulers, farmers, women, nomadic herdsman, hunters, etc.). The TDA document includes a list of stakeholders classified into two categories: the state and public institutions and non-state actors.

191. Key national stakeholders involved in the project implementation were policy/decision makers and representatives of riparian countries ministries in charge of the environment and water resources as well as technical experts (see section on implementation arrangements). There was limited engagement of the private sector in project activities, which should be addressed during the SAP implementation. At the local level, the project engaged local NGOs (e.g., PAPADEV) and local communities in the execution of the demonstration projects including the establishment of pilot local (grassroots) committees in Benin, Togo, and Ghana/Côte d'Ivoire. A number of capacity building workshops for stakeholders were conducted (e.g., on IWRM and the TDA/SAP process). Comprehensive stakeholder analysis and public participation plans were developed for the demonstration projects in Burkina Faso, Mali, and Togo (in French).

192. At the regional level the project established strategic partnerships with various institutions and organizations, and built on ongoing projects of some of these organizations. Collaboration agreements were signed with several of these groups (VBA, IUCN/PAGEV, ECOWAS/WRCC, and SIAAP), thus supporting a coordinated execution of key project activities. Inter-ministerial dialogue facilitated the involvement of a range of national/regional educational, research, governmental and non-governmental agencies and organizations, and other stakeholders.

193. The GEF TDA and SAP process is a highly participatory one, and the project made significant efforts to ensure stakeholders' involvement in the development and validation of the TDA and SAP throughout the entire process, including through regional as well as national workshops in the six riparian countries during the first quarter of 2010 and national TDA validations workshops in the last quarter of 2010. Stakeholders' participation activities and the TDA and APNP-VRB/SAP development process are described in the VRB regional TDA document. Stakeholders participated in all foundational studies supporting the TDA/SAP process and in the various regional/national TDA/SAP workshops, thematic meetings and discussions/planning, validation, TDA causal chain analysis, environmental quality objectives definition, identification and prioritisation of SAP Action and preparation of associated action sheets, etc.

194. In 2012, the regional TDA document was validated and finalised after inclusion of comments and recommendations from reviewers, stakeholders, and partners. A number of meetings and workshops were also convened in 2012 and 2013 for development of the SAP, with the participation of a wide range of stakeholders. The VBA was tasked with assisting UNEP in obtaining the ministerial signatures from the countries for SAP endorsement, and lobbied extensively with the countries. Support was also provided to the VBA for the organisation of key stakeholders meetings (Forum of Parties Involved in the Development of the Basin, Technical Forum, Experts meetings). Signing of the SAP by both the water and environment ministers in all six participating countries is a major success, for which the VBA, UNEP, and the countries are highly commended by the TE.

#### *Public Awareness*

195. The project undertook considerable efforts in raising public awareness of stakeholder groups. Among the activities conducted were:

- Courtesy visits by the RPC to environment ministers and other high level officials in the project countries;
- Preparation of project briefs and their presentation during courtesy visits by the RPC;
- Sensitization and awareness-creation activities during various field visits for the demonstration projects. Issues discussed with stakeholders at the local and grassroots levels comprised IWRM and IRB management, transboundary water and associated environmental issues, environmental sanitation, agricultural practices, and land and riverbank degradation;
- In the Benin demonstration area, local journalists were trained on how to conduct radio discussion on issues related to forests and water resources management, and two radio broadcast in local languages were prepared;
- Creation of the project bi-lingual (English and French) website ([//gefvolta.iwlearn.org](http://gefvolta.iwlearn.org)) in 2008. The website, which is hosted on IW:Learn, is a rich source of information on the project, including background information, technical reports and studies, monitoring and evaluation reports (PIRs, annual progress reports), and financial reports;
- Production of a 24-minute documentary ('Together for a sustainable development of the Volta River Basin resources') video, suitable for television;
- Presentations on the project at various regional and international events;
- Production of stickers, leaflets, and brochures in English and French, distributed to countries and partners;
- Participation of journalists in opening and/or closing sessions of meetings and events;
- Participation of the RPC in radio and television interviews around events such as World Water Day, World Water Forum, and GEF Biennial International Waters Conference;

- Radio and TV interviews conducted during the PSC meeting in Togo and national TDA validation workshop in Côte d'Ivoire;
- Key project reports translated into French/English and posted on the website and shared with partners.

196. Most of the stakeholders interviewed during the TE were appreciative of the project's awareness raising efforts and showed a high level of awareness about the project as well as the environmental issues facing the VRB and how their actions contribute to its degradation. Several respondents indicated that the project created awareness, previously lacking, about the transboundary nature of the basin and its problems and the need for collaboration among the countries in managing it. Among local communities at the demonstration sites, however, the TE noted limited knowledge about the goals of the overall project and the TDA/SAP process, although they were aware of the goals of the demonstration project. Preparation of public awareness material in the local languages would have helped to increase awareness and better engage local communities. Greater attention to communication in local languages will be important in subsequent activities regarding management of the VRB.

197. The MTE overall rating on stakeholder engagement as moderately satisfactory, reflecting the absence of a planned and systematic approach to engagement of stakeholders. The TE rating on this criterion is **Highly satisfactory**. The project closely engaged a wide range of key stakeholders at regional, national, and local levels and adopted a highly participatory approach particularly to the development of the TDA and SAP. This culminated in the validation of the TDA by all the countries and of the SAP by all the environment and water resources ministers.

### ***Country Ownership and Driven-ness***

198. The project was initiated by the countries themselves in 1998-1999, when Ghana proposed an initiative on integrated ecosystem management of the VRB, which resulted in the awarding of a GEF PDF-A grant in 1999. At the Accra workshop, which was held in 1999 as a part of the PDF-A grant activities, a working group comprising the six countries focused on the identification of the perceived water-related environmental problems. This regional inter-ministerial meeting resulted in the Accra Declaration, through which the countries formally agreed to collaborate on the integrated management of the Volta basin and strongly recommended the preparation of a project document to seek funds from GEF for this purpose. MOAs signed with each of the VRB countries reiterated their commitment to the project and reconfirmed the revised levels of co-finance agreed during the project inception phase.

199. Each country provided institutional support for project activities within the country, as described above (Implementation approach and adaptive management). All six countries participated regularly and actively in the PSC meetings and the TDA and SAP process. The PSC also agreed to implement the MTE recommendations. But, as previously mentioned, a number of problems were encountered such as recurrent changes in personnel and low motivation of national project personnel tied to remuneration issues. In addition, countries have had difficulties in mobilising co-finance to meet their pledges (see section on financial planning and management), but this can be attributed to the unfavourable economic situation in the countries rather than to lack of ownership and driven-ness. In some instances reluctance on the part of countries to share national data could be interpreted as a low level of ownership, although this was most likely related to the sensitivity of national water resources data.

200. National stakeholders, particularly from the environment and water ministries and other water resources agencies expressed a high level of ownership of the resulting TDA and SAP documents. This is attributed to their full engagement in the TDA and SAP processes as well as consideration and incorporation of national priorities in the TDA and SAP through officially approved national reports prepared by national committees with broad-based consultation. Validation of the regional TDA and

endorsement of the SAP attest to the level of ownership by the VRB countries. Stakeholders within the two ministries expressed high enthusiasm for another phase of the project to implement the SAP.

201. Another indication of high country ownership was the involvement of the VBA in project execution and importantly, in SAP implementation following the end of the current project. The VBA was established and is supported by the six countries, and its Council of Ministers consists of the six ministers of water resources, all of whom have also endorsed the SAP.

202. The MTE found limited appropriation of the project, which presented a substantial risk to achieving the project outcomes, and assigned a rating on country ownership and driven-ness of moderately unsatisfactory. Country ownership and driven-ness improved significantly following the MTE, and the TE rating is given as **Satisfactory**.

### ***Financial Planning and Management***

203. Financial planning and management was consistent with UNEP's and UNOPS' established procedures. A Funds Management Officer was designated by UNEP to provide oversight on the GEF funds administration.

#### ***Budgeting and project revisions***

204. A detailed project budget as well as a summary budget organised by project component and activity is included in the project document. The project budget (excluding PDF funds) consisted of GEF contribution of US\$5,388,200 and original pledged co-financing of US\$23,456,816. Most of the latter was in-kind, which limited the cash budget for the project. Due to changes in project design, and management and operational arrangements proposed during the inception stage, a revised project budget was prepared and included in the inception report. Component budget lines were significantly altered with funding for component 1 reduced by about 50% and funding for components 2 and 3 increased by around 40% each. The revised budget was approved at the first PSC meeting held in 2008. There were three budget revisions. Incremental changes were made in the 2010 annual budget, where a notable change was a reduction of 24% in the budget for the three demonstration projects, with a corresponding reallocation in component totals, and in the 2011 annual budget. The project budget was again revised in March 2012 and June 2013. Extension of the project had a number of implications including reduction in PMU staff as well as dropping of certain activities and associated budget revisions as well as 'hidden' costs to UNOPS and UNEP in terms of time demands on its personnel.

#### ***Expenditure and reporting***

205. The statement of expenditure is shown in Annex 7. Actual expenditures (GEF funds) reported in July 2014 was US\$5,309,566. Disbursement of funds was done in a series of tranches and was directly linked to the quarterly reporting mechanism (including both activity and financial reporting). Although this is standard management practice in UNEP, linking the request for funding to financial reporting created delays in the release of funds when there were delays in reporting, which affected implementation progress. But in high-risk projects it is more risky to decouple fund disbursement from financial reporting. UNOPS provided quarterly financial reports and certified annual financial reports to UNEP. UNEP reported significant delays in receipt of financial reports, which in turn led to delays in the processing of cash requests for the subsequent tranche. This also had a knock-on effect on the smooth and timely processing of budget revisions, when actual expenditures to date needed to be taken into account. However, the situation improved in the post-MTE period.

206. The MOAs with the basin countries included a schedule for payments in eight tranches with the first payment based on signature of the agreements and subsequent payments based on submission of progress and expenses reports. Payments were made by UNOPS based on expense reports approved by the RPC, invoicing from suppliers, and confirmation of delivery of services from consultants.

207. The processes put in place to assure timely approval of expenditures and payments have not always functioned to the satisfaction of the concerned parties. As reported by the MTE, reasons for this included last-minute requests for approval, procedural delays compounded by a failure to communicate the urgency of payments, inconsistent payment methods, and at least one misdirected payment. Delays in financial reporting by the countries to the PMU were encountered, mainly due to administrative challenges. This resulted in delays in processing of payments particularly in 2009 and 2010. To address this, the PMU organised a training session for NOFPs on UNOPS administrative, financial, and procurement procedures, which was conducted by the UNOPS Senior Portfolio Assistant in 2009. In addition, a tracking tool was developed by the PMU to help national partners understand their commitments. UNOPS also requested the RPC to play a more proactive role in financial oversight and provided training to the project administrative assistant in the use of Atlas.

208. At the end of the project all assets were transferred to the VBA (project vehicle, computer equipment, etc.) and the WRC (office furniture).

### *Co-financing*

209. The main deviation from the co-finance pledged in the Project Document was a reduction from nearly US\$4 million (to US\$690,000) in the pledge from Ghana, which was to account for the hosting of the VBA in Ghana (this was subsequently established in Burkina Faso). Anticipated and realized co-finance contributions are presented in Annex 7. It was recognized in the PIRs that there was medium to substantial risk that all the pledged co-financing may not materialize. Total co-financing realized as at 31 December 2013 was US\$6,125,873, representing 93% of the total pledged (excluding contributions from Czech Republic and Hungary). The realized co-financing from the Volta Basin countries amounted to US\$2,717,799, representing 79% of the total amount initially pledged. Failure to realize a higher level of co-financing has been attributed to several factors including challenges faced by the countries in honouring cash contributions, the global economic downturn, and failure by the countries to fully incorporate the project into their own structural planning and budgeting processes. Of the total contributions realized from the Volta Basin countries, only 10% was cash co-financing. However, this low level of materialized cash co-financing did not significantly affect project delivery since cash contributions were in most cases less than 20% of the amounts pledged by the countries. But it did affect the performance of national personnel who did not receive financial compensation for their time spent on project activities. This compensation should have come from the cash co-financing of the governments.

210. One solution to increase co-financing proposed by UNEP at the 3<sup>rd</sup> PSC meeting was that the countries' contributions to the VBA be considered as a (cash) contribution to their co-finance commitments. Involvement of the VBA in the project activities likely amounted to a substantial level of co-financing, but the TE did not receive a response from the VBA to a request for an estimate.

211. IUCN, SIAAP, ECOWAS/WRCC, and MCA Burkina Faso made parallel co-finance contributions through complementary project-based activities. SIAAP and IUCN contributions exceeded expectations. SIAAP's co-financing for the demonstration project activities in Kara was more than twice the expected amount while IUCN's contribution was 348% of the amount pledged. On the other hand, co-financing from the ECOWAS/WRCC EU project was lower than anticipated as unspent funds were returned to the donor because the project closed before activities were completed. Nevertheless, the ECOWAS WRCC project reported some US\$276,226 in parallel co-financing based on the support it provided to the VBA

in the lead up to and during the EU project. In its contract signed with UNOPS in August 2010, UDC committed technical support of US\$25,000 and travel costs of US\$4,375 as co-financing to the project.

#### *Other issues*

212. Following operational closure of the project PMU staff continued working, but without remuneration, for the administrative closure and finalization of the TDA and SAP documents, since UNEP was unable to extend the project beyond December 2013. This caused considerable dissatisfaction among the PMU staff. UNOPS had to rely on the RPC's professionalism to complete the outstanding tasks, which he did 'beyond the call of duty'. Such a situation is unsatisfactory, and could have put the final delivery and closure of the project at risk. The TE also learned that there was some delay by UNOPS in paying the RPC's terminal dues. Better planning for financial closure of the project would have avoided such situations.

213. The MTE rating on financial planning and management was Moderately Unsatisfactory, based on a number of concerns including whether the amount of co-finance anticipated in the inception report will be realised, the failure to formalise the project extension and budget revisions, weak country reporting, as well as delays in reporting and receipt of project payments that have at times strained relationships amongst project partners. Financial planning and management is rated by the TE as **Moderately satisfactory**.

#### ***UNEP Supervision and Backstopping***

214. The project document and inception report included a brief description of the roles and responsibilities of UNEP as the project implementing agency. Supervision and backstopping were under the responsibility of the UNEP TM, a role performed by two successive individuals within UNEP DGEF, and later DEPI after the former was dissolved. The TM provided for oversight and accountability throughout the duration of the project, with the support of the FMO assigned to the project. The MTE assigned a rating of moderately satisfactory to UNEP supervision and backstopping, which, at the time, was based on insufficient flexibility to accommodate the provision of sufficient time to fully address the range of implementation issues experienced in the project and concerns about the effectiveness of communication related to GEF procedures.

215. In the period following the MTE, the supervision and administrative and financial support provided by UNEP was satisfactory, and there was an emphasis on results-based project management. Both the RPC and UNOPS informed the TE that the TM was very 'hands-on' and closely engaged in the project, and expressed deep appreciation for the support provided by the TM. The TM actively supported the project during all stages, and provided valuable technical guidance during development of the TDA and SAP as well as guidance on GEF policies and procedures. Although UNEP's review comments on the TDA and SAP resulted in additional work for the consultancy team and RPC and contributed to the delays in finalizing these documents, UNEP's comments greatly improved the quality of these two products. UNEP's substantive contribution was of particular value since the main project outputs were substantive documents (TDA and SAP). The TM, who was very experienced and knowledgeable about the TDA/SAP process, worked closely with the RPC to finalize the regional TDA. UNOPS also relied heavily on the TM for scientific and technical matters. UNEP also anticipated that major lobbying would be required to prepare countries for SAP endorsement, and in this regard contracted the VBA to organize national SAP awareness campaigns. This contributed to signing of the SAP by both water and environment ministries in all the six countries, which was a major success for the project and the region.

216. The TM participated in all the PSC meetings, and undertook visits to the PMU and the demonstration project sites. Five Project Implementation reports (PIRs) were completed between 2009 and 2013, and five annual reports prepared for the period 2008 - 2012. The TM provided detailed comments and guidance to the RPC on the project implementation reviews (see M & E implementation section), and collaborated with the PMU and the VBA to prepare the management response to the MTE recommendations.

217. At times the PMU experienced considerable delays in receiving responses from UNEP, for example, comments on the draft TDA came nearly one year afterwards. This could have been attributed to the heavy workload of the TM. In addition, the PMU felt that UNEP was 'micro-managing', with UNEP's approval required even for small actions (such as procurement of items), which affected timely delivery and caused some degree of frustration for the PMU. Greater flexibility on the part of UNEP was needed. The PMU also experienced some delay in receiving feedback from the FMO on financial reports, which in turn caused delays in the release of funds by UNEP. This, however, did not have any major impact on delivery of project outputs.

218. The TE rating on UNEP supervision and backstopping is **Satisfactory**. Despite delays in responses and perceived micro-management by UNEP, its competent supervision and technical backstopping contributed to successful completion of the project and delivery of a high quality TDA and SAP.

## ***Monitoring and Evaluation***

### ***M & E design***

219. A key monitoring tool is the project logical framework. The original framework was modified in the inception phase, resulting in a more logical and coherent framework. Some weaknesses were noted, however. For example, the outcomes were the same as outputs, and not all the indicators were 'SMART'- a number of them were activities, some were not easily measurable, and others were not realistic within the project timeframe (e.g., Volta Basin Authority adopts SAP into their work plan, demonstration projects executed resulting in stress reduction). The targets (including mid-term and end of project targets) and timeframe were specified and means of verification and assumptions were adequate. The revised log frame was used in preparing the annual PIRs reports.

220. The project document also presented a detailed Monitoring and Evaluation (M&E) Plan and a description of the arrangements and responsibilities for monitoring, reporting, and evaluation as well as an indicative M&E work plan and budget. The M&E design consisted of the standard tools including PSC meetings, annual PIRs, annual progress reports, annual project reviews, mid-term and terminal project evaluations, and financial reports. The mid-term evaluation and terminal evaluation were adequately planned and budgeted for, and the former was completed in 2011.

221. The Inception Report included a budget for evaluation (consultants fees/travel/DSA, administrative support, etc.) of US\$100,000 (excluding staff time). Additional funding of US\$10,000 for evaluation and reporting (under the miscellaneous component) was allocated in the budgets for each of the demonstration projects. The level of funding allocated to M&E was considered adequate.

The TE rating for M & E design is **Moderately satisfactory**.

### ***M & E implementation***

222. M & E of project performance and progress was conducted in accordance with the M & E plan set out in the inception report. Day to day monitoring of implementation progress was the responsibility of the PMU based on the project's annual work plan, with the support of the co-executing agencies. Five annual PIRs for the years 2009-2013 were prepared by the PMU and with inputs from the TM. The PIRs,

which were based on the revised log frame, provided a comprehensive description of implementation progress for each activity and outcome, and assigned ratings to progress on activities and outcomes. Problems encountered were briefly mentioned, but a more in-depth, analytical description of the problems and their impacts would have been more informative (although the RPC and TM obviously had a good understanding of the problems). Internal and external risks to the project were also addressed in the PIRs, and in the 2013 PIR, the TM assigned a higher risk than the RPC to a number of risk factors: governance structure (the PSC had not met since February 2012 causing concern over ownership of the TDA and SAP), internal communications, work flow, and budget. The TM considered the last three at a substantial level of risk. The 2013 PIR project overall risk rating was 'substantial' due to the large number of remaining activities to be completed within a six-month time horizon.

223. Five annual progress reports (APR) for 2008-2012 were prepared by the PMU and with inputs by the TM. All the APRs were reviewed and approved by the PSC. As in the PIRs, a more in-depth analytical discussion of the problems and solutions would have been more informative, rather than a list of bullet points of challenges encountered. Another mechanism for tracking progress was the GEF 3 International Waters Tracking Tool (for Strategic Priority 2, New Waters/Foundational Projects), which was used by the TM and in the MTE. UNOPS also initiated preparation of a quarterly engagement assurance report (internal to UNOPS).

224. Quarterly financial reports were prepared by the countries and the PMU and submitted to UNOPS, which has stringent reporting requirements. Despite UNOPS training sessions with the countries there were delays in submission of financial reports, which in turn delayed the release of funds and hampered progress (see financial planning and management).

225. The MTE was carried out in 2011 by the UNEP Evaluation Office, three and a half years into implementation of the project and three years after the adoption of the project inception report by the PSC. The MTE identified a number of implementation challenges that were seriously impacting progress towards achieving project objectives, and expressed major concerns about the delivery of activities and outputs and whether the project was on track to deliver its objectives, particularly objectives 2 and 3, within its remaining timeframe. It assigned an overall rating for the project of Moderately Unsatisfactory, and made a number of important recommendations including a no-cost extension of 6-12 months. Implementation of the MTE recommendations and extension of the project by 12 months to December 2013 were instrumental in the successful completion of the project.

226. The project document also made provisions for the submission of the project terminal report within 60 days of project completion, to the Chief of UNEP Budget and Fund Management Unit. This report was prepared and was made available by the RPC for the TE.

227. The MTE rating on M&E implementation based on the original M&E plan was moderately satisfactory, reflecting good overall reporting but the absence of a systematic approach to tracking project progress on a day to day basis and of a system for risk management. The TE rating on M & E implementation is **satisfactory**.

228. The overall TE rating on M & E is **Satisfactory**. The overall rating on this criterion is based on the rating for M&E Implementation.

## **G. Complementarity with UNEP strategies and programmes**

### ***Linkage to UNEP's Expected Accomplishments***

229. Although the GEF Volta project was formulated prior to the publication of the UNEP Medium-term Strategy 2014-2017, the results are consistent with UNEP's programmatic objectives and expected



accomplishments under its Climate Change, Ecosystem Management, and Environmental Governance subprogrammes of this Strategy:

Climate Change: Increased carbon sequestration as a result of reduced land degradation, and reduced emissions from deforestation and forest degradation.

Ecosystem Management: Integrated management of land and water for the provision of ecosystem services, including freshwater efficiency and food security. The GEF Volta project strengthened the capacity of the countries to address degradation of the VRB and its coastal ecosystems using integrated approaches such as IWRM and IBM, which will lead to an increase in ecosystem services (specifically the provisioning of freshwater and hence improved food security) on the longer term.

Environmental Governance: National and regional institutions are strengthened to address agreed transboundary environmental priorities defined in the TDA, through development and adoption of the SAP; mainstreaming of environmental sustainability in national development processes through the APNP-VRBs; and improved access by stakeholders to science and policy-relevant information through the VB-ISS.

### ***Alignment with the Bali Strategic Plan***

230. With a major focus on capacity building, the project was consistent with the Bali Strategic Plan (BSP) for Technology Support and Capacity-building. The project contributes to Objective A of the BSP by strengthening the capacity of the VRB governments to achieve their environmental goal, targets, and objective as a result of individual and institutional capacity building. Technology support (Objective B) was provided to the VBA and VBO through the VB-ISS. The project also encouraged a participatory and multi-stakeholder approach with full national ownership during development and adoption of the TDA and SAP (Objectives D and F of the BSP).

### **H. Gender**

231. While the project document examined the impact of inadequate natural resources management on livelihoods and the poor, it was silent on the impacts on gender. There were no specific gender indicators in the project logframe and therefore little gender mainstreaming in the course of project execution. There was low participation of women at the regional and national levels in the capacity building events and preparation of the TDA and SAP. At the local level, however, this improved with some level of gender balance demonstrated in execution of the demonstration projects. In Bole, for example, about 420 persons participated in the awareness creation activities of which about 55% were reported to be women. Women were also involved in producing seedlings for reforestation and attending to planted seedlings. They also mobilized other women in their communities to join in the maintenance of the trees. In Benin, the men were involved in maintenance of the planted trees while the women benefited from the sensitization activities. Charcoal production is one of the main economic activities among local communities across the region, and is done by men and women. In Bole, however, charcoal production is done solely by women. Some women groups were encouraged by the project to establish woodlots for charcoal production. Women were not included in the 50 demonstration project implementation committee members that were trained to assist in managing the demonstration project at Bole. The VBA should ensure that gender issues are considered in the implementation of the SAP.

### **I. South-South Cooperation**

232. As a regional project the GEF Volta project was designed to increase cooperation among the Volta basin countries including through its support to the VBA and to the VBO that are long term platforms for

South-South Cooperation. The preparation of the TDA and the SAP brought together national and regional scientists and technical experts, key partners, and other stakeholders at various technical and training workshops. The demonstration projects were explicitly designed to facilitate cooperation including through sharing of technology, knowledge, and experiences among basin countries. The demonstration projects brought together partners such as IUCN/PAGEV, Eau Vive, and the GWP who have a wealth of experience in the sub-region and beyond, as well as local NGOs such as KITE and PAPADEV. Exchange of knowledge with other GEF IW projects is facilitated through the IW:Learn website.

## **V. CONCLUSIONS AND RECOMMENDATIONS**

### **A. Conclusions**

233. The GEF supported full sized project “Addressing Transboundary Concerns in the Volta River Basin and its Downstream Coastal Area” was designed to strengthen the ability of the riparian countries to sustainably plan and manage the Volta River Basin and its downstream coastal area. The major expected outputs were a regional Transboundary Diagnostic Analysis and a Strategic Action Programme, and demonstration of national and regional measures to combat transboundary environmental degradation in the basin. Because the project’s initial time frame of four years was inadequate, it was extended twice with a total duration of six years (January 2008-December 2013). The MTE identified several issues that were seriously impacting progress, resulting in operational delays and risk to completion of the project. The MTE assigned an overall rating of Moderately Unsatisfactory to the project and made a number of recommendations to address the key concerns. The terminal evaluation of the GEF Volta project focused on the post-MTE period and addressed a set of key questions based on the project’s intended outcomes (see Section II of this report).

234. In the post-MTE period, the project has been able to achieve all its expected outputs, outcomes, and objectives, enhancing stakeholders’ capacity and leaving a valuable legacy for the effective management of the VRB and its downstream coastal areas in the form of the regional TDA and SAP as well as demonstrated measures to address priority problems in selected local hotspots. The culmination of the project’s activities was the completion of the SAP and its endorsement by both the water and environment ministers in all the six countries, for which the project team and the VBA are applauded. Endorsement of the SAP also demonstrates a significant level of ownership of the project and its outcomes by the VRB countries. By assigning responsibility for SAP implementation to the VBA, the project has left in place an established mechanism for sustaining its outcomes. In order to effectively implement the SAP, however, the VBA must be strengthened through, for example, hiring of additional personnel.

235. There are good prospects for sustainability of the project outcomes and achievement of long term impact within the basin. Several factors, however, can undermine sustainability such as climate change impacts on the Volta Basin water resources, harmful social and cultural practices, and differences in regulatory frameworks between the countries.

236. Several factors contributed to the successful completion of the project and achievement of its objectives (see Part IV, Section F). This was all underpinned by the solution-oriented and adaptive management approach of the PMU and the implementation agency, for which they are highly commended. On the other hand, a number of challenges affected project progress and performance including limited technical support to the PMU, poor performance of some of the consultants, limited project management capacity of the PMU and in the countries, and difficulties experienced by the countries to mobilize cash co-finance. All three bi-national demonstration projects were affected by

circumstances that affected implementation in one of the partner countries, undermining achievement of the original aim to encourage bi-lateral collaboration, as seen, for example, in the effect of the political crisis in Côte d'Ivoire on bilateral collaboration with Ghana within the framework of demonstration project 3.

237. Based on the terminal evaluation findings, the overall TE rating for the GEF Volta project is **Satisfactory**.

238. A summary assessment and ratings by evaluation criteria are presented in Table 4. The ratings reflect consideration of the full set of issues affecting or characterizing project performance and impact that are discussed in Part IV of this report.

**Table 4. Summary assessment and ratings by evaluation criteria.**

Highly Satisfactory (HS); Satisfactory (S); Moderately Satisfactory (MS); Moderately Unsatisfactory (MU); Unsatisfactory (U); Highly Unsatisfactory (HU).

Sustainability is rated from Highly Likely (HL) down to Highly Unlikely (HU).

Criteria	Summary Assessment	TE Rating	MTE Rating
<b>A. Strategic relevance</b>	The project is highly relevant to the challenges faced by the VRB countries regarding issues such as limited capacity, water scarcity, persistent poverty, climate change, and ecosystem degradation in the Volta Basin. It is also consistent with UNEP's mandate and cross-cutting priorities and objectives (Medium Term Strategy 2010-2013), and with GEF Operational Program (OP) 9 and with IW Strategic Priorities in support of the WSSD outcomes.	<b>HS</b>	<b>HS</b>
<b>B. Achievement of outputs</b>	All expected outputs were satisfactorily achieved, in particular the TDA and SAP, which were the 'raison d'être' of the project.	<b>S</b>	<b>MU</b>
<b>C. Effectiveness: Attainment of project objectives and results</b>	The project's intended outcomes were achieved, culminating in the overwhelming endorsement of the SAP by both water and environment ministers of all the six countries. The aim of the demonstration projects to promote bilateral collaboration between the countries was not completely achieved although valuable lessons and experiences for replication were produced.	<b>S</b>	<b>MU</b>
<b>D. Sustainability and replication</b>	The overall rating on this criterion is based on the weakest rating for sub-criteria	<b>L</b>	<b>MU</b>
Financial factors	There are good prospects for support for SAP implementation through uptake by countries of SAP elements in their water resources management plans as well as from bilateral and multilateral donors, among others.	<b>HL</b>	<b>ML</b>
Socio-political factors	Validation of the TDA by the countries and endorsement of the SAP by both the water and environment ministries of all six basin countries, as well as ratification of the VBA Convention indicates good prospects for political sustainability. Threats to socio-political sustainability include socio-political upheavals and terrorist activities to which this region can be prone, and certain cultural practices.	<b>HL</b>	<b>MU</b>
Institutional factors	The Volta region possesses a strong institutional foundation for sustaining project outcomes, including environment and water resources agencies at the national level and the VBA and other institutions at the regional level.	<b>L</b>	<b>L</b>

Environmental factors	Achievement of the SAP EQOs will ensure environmental sustainability although climate change impacts and factors such as grazing by livestock, transhumance, and uncontrolled bush fires could diminish any environmental gains.	<b>L</b>	<b>L</b>
Replication and upscaling	Uptake of the SAP in the VBA's strategic planning framework is expected to contribute to catalysing and accelerating SAP implementation. The experiences and lessons from the demonstration projects are incorporated in the SAP, which will facilitate replication and upscaling in other areas. SAP implementation has already started, e.g., through a World Bank project.	<b>S</b>	<b>-</b>
<b>E. Efficiency</b>	Cost saving measures included establishing strategic partnerships for various aspects of the project and building on existing data and information and other ongoing projects. The project however suffered delays from the start, resulting in the need for two extensions, which decreased efficiency.	<b>MS</b>	<b>MU</b>
<b>F. Factors affecting performance</b>			
Preparation and readiness	The extensive project preparation period affected the quality at entry of the project with repercussions for the project's relevance and institutional set up, in view of the creation of the VBA in June 2006. As a result, the project had to be substantially revised during the inception phase. The initial planned duration and budget were inadequate. The MTE rating is retained as this criterion assesses the design and inception phase.	<b>MS</b>	<b>MS</b>
Implementation approach and management	The implementation structures at local, national, and regional levels were functional and generally able to adapt well to changing circumstances. Constraints such as inadequate technical support to the PMU and the language barrier did not have any major impact on delivery.	<b>S</b>	<b>MS</b>
Stakeholder participation and public awareness	The project closely engaged a wide range of key stakeholders at regional, national, and local levels and adopted a highly participatory approach particularly to the development of the TDA and SAP. Stakeholders demonstrated a high level of awareness about the VRB and its transboundary nature, which they attributed to the project.	<b>HS</b>	<b>MS</b>
Country ownership/driveness	The project was initiated by the countries themselves. Validation of the regional TDA by all the countries and endorsement of the SAP by the environment and water ministries demonstrate a high level of ownership by the countries.	<b>S</b>	<b>MU</b>
Financial planning and management	There were no major irregularities, but issues included weak country reporting, delays in reporting and disbursement of payments, shortfall in cash cofinance, and non-payment of PMU staff for work done following operational closure.	<b>MS</b>	<b>MU</b>
UNEP supervision and backstopping	UNEP provided effective supervision and backstopping although this could have been better in the pre-MTE period.	<b>S</b>	<b>MS</b>
Monitoring and Evaluation	The overall rating on M & E is based on rating for M&E Implementation.	<b>S</b>	<b>MS</b>
- M & E Design	The revised logical framework was coherent although there were some weaknesses, e.g., the outputs and outcomes were the same and not all the indicators were 'SMART'.	<b>MS</b>	<b>MS</b>
- M & E	M & E was conducted in accordance with the M & E plan set out in	<b>S</b>	<b>MS</b>

Implementation	the inception report.		
<b>OVERALL RATING</b>		<b>S</b>	<b>MU</b>

## B. Lessons learned

239. The MTE presented several lessons related to a number of issues including extended project development phase and implications for the project's overall relevance in view of the creation of the VBA prior to project approval, continuity in view of institutional and personnel changes and loss of institutional memory, and difficulties in mobilising co-finance; risks to transboundary demonstration projects by circumstances affecting implementation in one of the partner countries and ensuring that any demonstration projects involving bi-national collaboration can continue regardless of progress of the project in the partner country; and remuneration for national project staff and ensuring that there is a clear understanding of the nature of funding available for staff remuneration from the outset of the project.

240. The following lessons derived by the TE are based on the above findings and relate to the key factors (positive and negative) affecting the project's performance and achievements:

1. Engaging an existing regional basin organization (VBA) in the execution of project activities and for future SAP implementation is a very effective strategy to help achieve the objectives, strengthen country ownership, and sustain project outcomes following project closure. The VBA played a substantial role in the execution of project activities and was assigned responsibility by the PSC for coordinating future SAP implementation. An important contribution of the VBA was facilitating endorsement of the SAP by both the water and environment ministers in all the six countries. Incorporation of the SAP into the VBA's strategic plan provides a robust mechanism for SAP implementation. (Paragraphs 63, 71, 141, 142, 173).
2. In projects that have a strong technical focus (development of TDA and SAP in the case of the GEF Volta project) provisions must be made to ensure the availability of adequate technical support in addition to managerial capacity. The GEF Volta project PMU suffered from limited technical support especially when UDC's role was scaled down and the TTF disbanded. This was compounded by factors such as resignation and poor performance of some of the consultants contracted for specific technical tasks. It was necessary for the RPC and UNEP Task Manager to devote a considerable amount of time to technical tasks such as finalizing the TDA. (Paragraphs 181-185).
3. It is unrealistic to expect that an expert hired to manage a technical project will have both the required managerial and technical skill sets since it can be difficult to find an individual who possesses both skill sets. The RPC had excellent technical capabilities but some initial challenges were encountered regarding project management (e.g., financial reporting, processing of contracts and payments), and much coaching was necessary from UNOPS. While training of the RPC and other PMU staff greatly improved the situation, the initial problems had knock-on effects on project implementation. Similarly, limited managerial capacity at the national level required considerable effort by the PMU and UNOPS to address ensuing problems. For a technical project, it is important that adequate technical and managerial support is provided at national and regional levels. This may require hiring of two separate individuals (a technical adviser supported by a project manager) if one individual with both skill-sets cannot be identified. (Paragraphs 165, 169-170).
4. Unrealistic co-finance pledges particularly cash co-finance, and overestimation of countries' ability to mobilize funds can seriously threaten progress at the national level, with potential

repercussions on overall achievement of project objectives. Owing to a number of factors, the GEF Volta project participating countries experienced difficulties in realizing their cash co-finance pledges (revised pledges were made during the inception phase). It was expected that some of this cash co-finance would be used for remuneration of national project personnel, but this did not happen, leading to low motivation and poor performance among some of them. Discussion of this matter also took up a considerable amount of time during multiple PSC meetings. (Paragraphs 179, 209).

5. The time required for completion was under estimated. Regional projects of this scope and complexity require many adjustments, revisions, and, ultimately, extensions, etc. during implementation, which can have significant cost implications even though extensions are labelled 'no-cost'. The GEF Volta project had two extensions that increased its duration from four to six years. Whilst the budget envelope is not altered, covering the associated additional running costs meant that some activities had to be dropped and the associated budget moved to project management, and PMU staff reduced. Additional 'hidden' costs were incurred by the implementing and executing agencies due to time demands on the responsible personnel. (Paragraph 159, 204).
6. Demonstrating that concrete benefits to stakeholders could be derived from specific management measures greatly increases stakeholder buy-in during project implementation and the prospects for uptake and sustainability of results after the project ends. Local charcoal producers in Ghana were keen to adopt the new charcoal production methods introduced because they saw actual substantial increases in income from using these methods. In addition, providing an alternative source of wood for charcoal from planted woodlots not only meant that producers had a more easily accessible supply of raw material but that the pressure on natural forests was reduced. In contrast, where no concrete long-term benefits are foreseen, stakeholders are likely to abandon the activities thereby undermining sustainability of outcomes, as was seen in Ghana and Benin. In the demonstration areas in these two countries, there was no maintenance of the reforested plantations following the end of the GEF Volta project and discontinuation of financial support to the local communities who were involved in the reforestation programmes. (Paragraphs 93- 96, 138).
7. For transboundary projects between multiple countries, specific problems in individual countries can delay implementation and undermine the purpose of transboundary knowledge sharing and cooperation, as demonstrated by the impact of political instability in Côte d'Ivoire on the joint demonstration project with Ghana. Similarly, differences in national priorities between the partner countries could also undermine the goal of transboundary cooperation, as experienced in Togo and Benin. As far as possible, the selection of transboundary projects should be based on similar conditions and priorities in each of the participating countries. (Paragraphs 87, 90, 97).
8. Social and cultural practices can potentially affect project delivery and sustainability of outcomes. In the demonstration project areas issues such as transhumance and deliberate setting of bush fires for farming and hunting were observed to have a significant impact on the demonstration project activities and sustainability of outcomes. Similarly, differences in regulatory frameworks and levels of surveillance and enforcement between countries that share a transboundary basin can undermine project performance and the achievement of global environment benefits and sustainability on the long term. Mitigating measures to address these issues must be considered in project design and development of management measures. (Paragraphs 136-137).

## C. Recommendations

1. The VBA member countries (specifically the water and environment ministries) should make every effort to strengthen the VBA for coordination of SAP implementation (including timely payment of dues), for which it has been given the responsibility by the GEF Volta project PSC. The VBA will need, for example, appointment of appropriate staff.
2. As seen in many GEF IW projects, inability of the countries to mobilize cash co-finance is a frequently occurring problem. To avoid this in future projects, countries must ensure that co-finance, especially cash co-finance, is realistically estimated and further that adequate budgetary provisions are made for remuneration of national project personnel, many of whom have responsibilities under the project added to their already heavy workload.
3. The water and environment ministries in the VRB countries as well as the VBA should disseminate the project results to all key stakeholders using appropriate communication channels. Consideration should be given to developing a range of information products in the appropriate format and languages (English and French), including local languages. These activities can be undertaken during SAP implementation to support the process and to attract other donors and partners for the collaborative management of the VRB.
4. UNEP and the VBA should continue to develop projects for donor support for implementation of the various SAP components and to help countries to uptake the SAP into their national IWRM strategies and programmes.

## **ANNEXES**

**Annex 1. Terms of references for the GEF Volta project terminal evaluation (to be inserted in final report)**



## Annex 2. Logical framework of the GEF Volta Project

Project Outcomes	Indicator	Baseline	Mid-term target	End of Project Target
Outcome 1.1: <i>Project Managed and coordinated to partners satisfaction</i>	Project management and co-ordination bodies established	None	PMU and all project organs operational and effective	
<b>Outcome 1.2:</b> <i>Capacity &amp; participation of stakeholders in VRB management strengthened</i>	Ministries of environment and water resources are both represented in the Project Steering Committee		(None)	Ministries of environment and water resources participate in the project activities
	All relevant stakeholders participate in project activities and have access to project reports, publications, database, etc.	Not existing	All stakeholders identified and their actions understood; MOUs developed to support key collaborations, e.g. VBA, EU Volta project, IUCN PAGEV project	
	Institutions have the capacity to manage and monitor data in support of the implementation of SAP and APNP-VRB, and provide coordinated data transfer to VBA observatory	None	Existing data is inventoried and CHM established	Countries contributing data to the CHM
	Involvement of stakeholders in SAP and APNP-VRB process and roles detailed in SAP and APNP-VRB documents	None	Stakeholders contribute to the TDA process	Stakeholders have contributed to national and regional SAP processes
	National institutions have the capacity to implement the SAP and APNP-VRB	None	National institutions and partners understand the TDA and SAP processes	National institutions engaged in TDA and SAP processes and are positioned to implement the SAP by incorporating SAP priorities into other national and/or regional initiatives
<b>Outcome 1.3:</b> <i>Knowledge base expanded &amp; basin-wide communication mechanism in place</i>	VBA database developed and updated at regional and national levels	No database for VBA exists	Equipment procured development underway.	VBA database (CHM) developed by year 4 and functional
	Contributions to the establishment of regional Volta Basin Observatory	Volta Basin Observatory to be	Existing metadata understood and synthesized	CHM is functional and supports the observatory

Project Outcomes	Indicator	Baseline	Mid-term target	End of Project Target
	completed and approved by the VBA	established, with funding by French GEF		operations
	At least 2 thematic studies carried out	Thematic studies to be identified will fill in gaps identified by TDA and national experts		2 thematic studies carried out on water and related natural resources of the Volta River Basin by year 3
<b>Outcome 2.1:</b> <i>VRB regional coordination mechanisms supported</i>	VRB Convention into force	Convention signed by the riparian countries	Convention ratified by at least 4 of the riparian countries	VRB convention enters into force and VBA functional
<b>Outcome 2.2:</b> <i>Transboundary Diagnostic Analysis (TDA) updated and finalised</i>	TDA revised, finalized and endorsed by the Project Steering committee	Preliminary TDA prepared under PDF-B phase of the project	TDA endorsed by the project Steering committee by the end of year 2	TDA endorsed by the project Steering committee and informing management
<b>Outcome 2.3:</b> <i>Action Plans for the National Parts of the VRB (APNP-VRB) developed</i>	APNP-VRB finalised and endorsed at country level	IWRM plans at various stages of development for each country.	Methodology developed and agreed	APNP-VRB endorsed at country level by year 4
	Key inter-sectoral transboundary issues identified and plan for sectoral harmonisation developed with relevant sectors and agreed for inclusion in IWRM process	Inter-sectoral harmonization as part of the IWRM process needed in all countries and ongoing and substantial work	APNP-VRB methodology includes IWRM considerations; stakeholders understand links between APNP-VRB and SAP processes and IWRM	APNP-VRB process highlighted for mainstreaming into national IWRM processes
<b>Outcome 2.4:</b> <i>Strategic Action Programme (SAP) prepared</i>	SAP drafted, finalized and endorsed at ministerial level (Water and Environment Ministers)	No SAP exists for Volta River Basin	Methodology for SAP process developed; national partners trained on TDA/SAP processes	SAP endorsed at ministerial level by the end of year 4
	Volta Basin Authority (VBA) adopts SAP into their work plan	Volta River Basin Authority established in 2007 but with no SAP to implement or other strategic planning of activities based on agreed priorities	VBA participates in and advocates for TDA/SAP process	Volta Basin Authority (VBA) adopt SAP into their work plan as mechanism for the implementation of the Volta River Basin Convention by the end of year 4
<b>Outcome 3.1:</b> <i>3 Demo Project</i>	3 Demo projects executed resulting in	None	Six demo project starting at the	Six demo projects

Project Outcomes	Indicator	Baseline	Mid-term target	End of Project Target
<i>successfully implemented</i>	stress reduction (see demo logframe) and analysed for their replicability		beginning of year 2	executed by year 4
<b>Outcome 3.2:</b> <i>Replication strategy for demonstration project developed and initiated</i>	Six national Demo projects are prepared to be submitted to co-funding partners	None	Demonstration projects underway	Key issues in demonstration projects have been identified and incorporated into a replication strategy

### Annex 3. Assessment of project design

(From TE Inception Report)

Relevance		Evaluation Comments	Prodoc reference
Are the intended results likely to contribute to UNEPs Expected Accomplishments and programmatic objectives?		Yes, for example, the project is supportive of two of the Strategic Objectives of the UNEP GEF Action Plan on complementarity: (i) relating national and regional environmental priorities to the global environmental objectives of the GEF; and (ii) promoting regional and multi-country cooperation to achieve global environmental benefits. In addition, the priority actions are consistent with the Integrated Coastal Area and River Basin Management approach that has been developed by UNEP. The project is also consistent with UNEP's cross-cutting priorities and objectives (Medium Term Strategy 2010-2013) in the areas of ecosystem management and climate change.	Para 9 – 11, 30-31.
Does the project form a coherent part of a UNEP-approved programme framework?		The project supports UNEP's focus on efforts on the special needs of Africa in the field of freshwater, consistent with a decision adopted at the twentieth session of the UNEP Governing Council on support to Africa. UNEP also implemented the GEF Global International Waters Assessment project, which has already been carried out in the Volta Basin countries and formed part of the information base for the national reports. One of UNEP's focus in Africa relates to freshwater, which this project is concerned with. The Project is also consistent with the Global Programme of Action for the Protection of the Marine and Coastal Environment from Land Based Activities for the WACAF region.	Para 30 - 34
Is there complementarity with other UNEP projects, planned and ongoing, including those implemented under the GEF?		There is complementarity with several other UNEP projects including those implemented under the GEF. A number of these are listed in Table 1 of the pro doc (pg 17).	Paragraphs 11 - 22, 30 – 34
Are the project's objectives and implementation strategies consistent with:	i) Sub-regional environmental issues and needs?	Yes, for example, this project is in agreement with the water policies of the African Development Bank whose Water Supply and Sanitation Sector Policy and the draft Integrated Water Resources Management Policy both assign high priority to environmental issues such as water resources management, wastewater disposal, solid waste disposal and toxic waste management. It is also in agreement with the World Bank Freshwater Initiative for Africa, as well as the Africa Region Water Resources Management Strategy and the Africa Water Resources Management Initiative.	Para 18 – 27, 82
	ii) the UNEP mandate and	Yes, project objectives and implementation strategies are consistent with UNEP's mandate (as per the Nairobi Declaration) and policies, for instance, those related to	Para 19 -21

	policies at the time of design and implementation?	priority transboundary environmental issues such as those under the Abidjan Convention of its Regional Seas Programme.	
	iii) the relevant GEF focal areas, strategic priorities and operational programme(s)? (if appropriate)	<p>Yes, the project is in conformity with the objectives of GEF Operational Program 9 on Integrated Land and Water Management (under GEF 3). It is also consistent with the GEF International Waters Focal Area- Strategic Priorities in Support of WSSD Outcomes for FY 2003-2006:</p> <p>Priority 1. Expand global coverage of foundational capacity building addressing the two key program gaps with a focus on cross-cutting aspects of African transboundary waters and support for targeted learning; and</p> <p>Priority 2. Undertake innovative demonstrations for reducing contaminants and addressing water scarcity issues with a focus on engaging the private sector and testing public-private partnerships.</p> <p>The project will assist in addressing one of the key International Waters gaps: addressing water scarcity/competing uses of the resource, including those resulting from climatic fluctuation.</p>	Para 12 - 17, 82
	iv) Stakeholder priorities and needs?	The project's objectives and implementation strategies are consistent with the needs and priorities of regional and national stakeholders for sustainable management of transboundary freshwater resources. The implementation of this project supplements existing regional, bi-lateral and national efforts to address environmental issues in the Volta Basin.	Para 18-29, 35-44, 61,82,
<b>Overall rating for Relevance</b>		Highly Satisfactory. The project is consistent with UNEP's mandate, policies and objectives, and its priorities particularly related to ecosystem management and climate change as well as UNEP's efforts to address the special needs of Africa related to freshwater. It is in conformity with GEF's Operational Program 9 and International Waters Focal Area Strategic Priorities. The project directly responds to the needs and priorities of stakeholders for sustainable management of transboundary freshwater resources, and supplements existing regional, bi-lateral and national efforts to address environmental issues in the Volta Basin.	HS
<b>Intended Results and Causality</b>			Section 4
Are the objectives realistic?		Yes, the three objectives are realistic.	Section 4, Para 51 – 52
Are the causal pathways from project outputs [goods and services] through outcomes		Yes, causal pathways from project outputs through outcomes towards impacts are clearly described. There is also a clearly presented Theory of Change.	Section 4, log frame

[changes in stakeholder behaviour] towards impacts clearly and convincingly described? Is there a clearly presented Theory of Change or intervention logic for the project?		
Is the timeframe realistic? What is the likelihood that the anticipated project outcomes can be achieved within the stated duration of the project?	A project of this scope and complexity may require a longer timeframe for successful completion. In reality, most of the project outcomes in the log frame are activities that can be achieved within the stated duration of the project.	Section 4, Para 65, log frame
Are the activities designed within the project likely to produce their intended results?	In general, the activities are likely to produce their intended results but the timeframe is not realistic. Implementation of the transboundary demonstration projects could be a challenge.	Section 4, Para 47, 54 – 58, Annex I
Are activities appropriate to produce outputs?	Yes, activities are appropriate.	Section 4, Para 47, 54 – 58, 60
Are activities appropriate to drive change along the intended causal pathway(s)	Yes, activities are appropriate to drive change along the intended causal pathway(s).	Para 60
Are impact drivers, assumptions and the roles and capacities of key actors and stakeholders clearly described for each key causal pathway?	Yes, impact drivers, assumptions and the roles and capacities of key actors and stakeholders are clearly described.	Section 4
<b>Overall rating for Intended Results and causality</b>	Satisfactory. The project objectives are realistic and causal pathways from project outputs through outcomes towards impacts are clearly described. The activities designed within the project are appropriate but not all of them are likely to produce their intended results within the anticipated timeframe (particularly the demonstration projects). The timeframe is inadequate for a project of this scope and complexity.	<b>S</b>
<b>Efficiency</b>		
Are any cost- or time-saving measures proposed to bring the project to a successful conclusion within its programmed budget and timeframe?	Yes, for example, by building upon pre-existing institutions, agreements and partnerships, data sources, synergies and complementarities with other initiatives, programmes and projects. The project was designed to have close collaboration with national governments and institutions involved in similar projects or have similar capabilities at the national and regional levels. It also considered adopting a regional approach to address common transboundary issues.	Para 80, 81, 82
Does the project intend to make use of / build upon pre-existing institutions, agreements and partnerships, data sources, synergies and complementarities with other	See above. There is a wide range of relevant institutions, partnerships, data sources, etc. in the countries and the region that the project intended to build on. The Volta project will complement other GEF IW projects and others.	Para 15-34, 82

initiatives, programmes and projects etc. to increase project efficiency?		
<b>Overall rating for Efficiency</b>	Satisfactory. The project design took into account a number of measures to ensure efficiency, cost-effectiveness and timeliness. It considered building upon pre-existing institutions, agreements and partnerships, data sources, synergies and complementarities with other initiatives, programmes and projects as cost saving measures. The project was designed to have close collaboration with national governments and institutions involved in similar projects or with the required capabilities. Adopting a regional approach to address common transboundary issues also increased efficiency.	<b>S</b>
<b>Sustainability / Replication and Catalytic effects</b>		
Does the project design present a strategy / approach to sustaining outcomes / benefits?	Strategies to sustain outcomes and benefits are described in the pro doc and include capacity building, awareness raising, stakeholder involvement in project implementation, demonstrating integrated land and water management strategies for replication, creation of partnerships with the private sector, and establishing regional networks and information exchange mechanisms. The need for adequate financial resources to sustain outcomes is also recognized.	Para 61-69
Does the design identify the social or political factors that may influence positively or negatively the sustenance of project results and progress towards impacts? Does the design foresee sufficient activities to promote government and stakeholder awareness, interests, commitment and incentives to execute, enforce and pursue the programmes, plans, agreements, monitoring systems etc. prepared and agreed upon under the project?	The design identifies factors such as government commitment, involvement of key stakeholders, conflicts, civil strife and political unrest and risk due to financial strain initiated by the vulnerability of the national economies to global events, and changes in economic, political and social conditions that may derail national commitments. The project also aims to deliver real benefits to the local people by implementation of demonstration projects at the local level and address priority transboundary issues (focus on water scarcity) and their socio-economic root causes in the Volta Basin. A number of activities are identified to promote awareness and build capacity, etc. and a stakeholder participation plan was developed during project preparation.	Para 44, 50, 61-69
If funding is required to sustain project outcomes and benefits, does the design propose adequate measures / mechanisms to secure this funding?	The project design mentions other possible sources of funding such as the World Bank and African Development Bank and other partners.	Para 64, 113
Are there any financial risks that may jeopardize sustenance of project results and onward progress towards impact?	Yes, the project design has identified the financial vulnerability of the participating countries to global events as likely risk that can affect project implementation and results and onward progress towards impact.	Para 65

Does the project design adequately describe the institutional frameworks, governance structures and processes, policies, sub-regional agreements, legal and accountability frameworks etc. required to sustain project results?		Yes, some of the activities focus on improving policy and legal frameworks for management of the Volta basin. It also mentions the establishment of sustainable institutional frameworks. The project document describes all the key actors to be engaged in project implementation, management, supervision and monitoring and evaluation as part of project institutional framework.	Para 53, 76 -89
Does the project design identify environmental factors, positive or negative, that can influence the future flow of project benefits? Are there any project outputs or higher level results that are likely to affect the environment, which, in turn, might affect sustainability of project benefits?		The project identifies factors such as extreme climatic events that can reduce or greatly increase the availability of water. There are no outputs or higher level results that are likely to directly affect the environment and sustainability of benefits, although improvement in water availability in the VBR could encourage more people to move to the area, not all of who may adopt sustainable practices. In addition, there is a danger that the carrying capacity of certain areas could be exceeded, to the detriment of the environment. These pathways could undermine the sustainability of project results.	Para 50
Does the project design foresee adequate measures to catalyze behavioural changes in terms of use and application by the relevant stakeholders of (e.g.):	i) technologies and approaches show-cased by the demonstration projects;	Yes, three transboundary demonstration projects are considered. These projects have been designed to show cross-sectoral land and water management approaches and be replicable throughout the basin and other Sahel areas.	Para 58, 67
	ii) strategic programmes and plans developed	Yes, through the development of the regional TDA and SAP and national action plans in the participating countries.	Section 4
	iii) assessment, monitoring and management systems established at a national and sub-regional level	Yes, the project has considered several layers of assessment, monitoring and management systems at national and regional levels, including a one-off tri-partite review.	Para 94 – 99
Does the project design foresee adequate measures to contribute to institutional changes? [An important aspect of the catalytic role of the project is its contribution to institutional uptake or mainstreaming of project-piloted approaches in any regional or national demonstration projects]		The project aims to build the required institutional capacity. The demonstration projects will focus on the development of cross-sectoral management approaches, which will address the requirements for institutional realignment and appropriate infrastructure; adoption of new modalities for sectoral participation; and enhancement of regional capacity to manage the basin in a sustainable manner. In addition, the SAP will identify policy/legal/institutional reforms and investments needed for sustainable management of the VRB. A key to the long-term sustainability of project activities is the creation of a new basin framework/organization (a basin authority or commission).	Para 37, 56, 64, 67,



Does the project design foresee adequate measures to contribute to policy changes (on paper and in implementation of policy)?	Yes. The SAP will identify policy changes. Government approval of the SAP is expected to promote policy implementation and reforms.	Section 4, component 2
Does the project design foresee adequate measures to contribute to sustain follow-on financing (catalytic financing) from Governments, the GEF or other donors?	The design has identified opportunities for involving the World Bank (WB) and /or the African Development Bank in potential investment opportunities and planned to explore this during project implementation to have a partner for follow up investments for on-the-ground activities. The SAP will be endorsed by the countries, with national and donor commitment to funding SAP and Workplan elements. The project also intends to develop a funding mechanism beyond project termination to contribute to the stability of established overarching mechanisms and frameworks.	Para 56, 60, 74
Does the project design foresee adequate measures to create opportunities for particular individuals or institutions ("champions") to catalyze change (without which the project would not achieve all of its results)?	The project has identified a number of key organizations and institutions at the national and regional level that will be instrumental in catalysing change (e.g., Water Resources Commission of Ghana, Global Water Partnership, Africa Water Forum), and will create opportunities for these institutions to be involved in the project including as beneficiaries.	Para 18-29, 67, 83
Are the planned activities likely to generate the level of ownership by the main national and regional stakeholders necessary to allow for the project results to be sustained?	Yes, for example, building capacity, involvement of major stakeholders in project implementation, addressing priority issues and responding to stakeholder needs at the national and regional level are expected to increase ownership and the potential for sustaining the project results.	Para 62, 63,
<b>Overall rating for Sustainability / Replication and Catalytic effects</b>	Satisfactory. Measures to sustain outcomes and benefits include capacity building, awareness raising, stakeholder involvement, creation of partnerships with the private sector, and establishing regional networks and information exchange mechanisms. Addressing priority issues in the basin and demonstrating integrated land and water resources management should catalyse replication and uptake of results. The participating governments have shown a high level of commitment to the project, and their endorsement of the SAP, which identifies policy/legal/institutional reforms and investments needed for sustainable management of the VRB, is also expected to facilitate uptake of project results. A new basin framework/organization is also envisioned, which will be key to sustainability. The project identifies other potential sources of funding such as the World Bank and African Development Bank, and intends to develop a funding mechanism to contribute to the sustainability of the basin framework. Factors that pose a risk to sustainability include extreme climatic events, conflicts, civil strife, political unrest and financial constraints.	S
<b>Risk identification and Social Safeguards</b>		
Are critical risks appropriately addressed?	Yes, the pro doc and log frame include a comprehensive discussion of risks and how	Para 50, 64, 65;

	they could be addressed.	Annex II; Revised log frame (Inception report)
Are assumptions properly specified as factors affecting achievement of project results that are beyond the control of the project?	It is not explicitly stated that assumptions are factors affecting achievement of project results that are beyond the control of the project, but this is implied in the wording of some of the assumptions.	Para 49; Revised log frame
Are potentially negative environmental, economic and social impacts of projects identified?	Potentially negative environmental, economic and social impacts of the project are not identified. It is recognized, however, that the project countries may experience financial difficulty in sustaining the needed levels of counterpart funding and to assume the increased financial burden upon completion of GEF funding. Further, transferring lessons from the demonstration projects will require considerable government commitment of manpower and financial resources.	Para 65-66
<b>Overall rating for Risk identification and Social Safeguards</b>	Moderately satisfactory: The project document includes a detailed analysis of risks and how they could be addressed, but does not address social safeguards. Potentially negative environmental, economic and social impacts of the project are not identified, but it is recognized that the countries may experience financial difficulty in sustaining counterpart funding upon completion of the project as transferring lessons from the demonstration projects and implementing the reforms to be identified in the SAP will require considerable government commitment of financial resources and manpower.	
<b>Governance and Supervision Arrangements</b>		
Is the project governance model comprehensive, clear and appropriate?	The project governance model is clearly described, and is considered comprehensive and appropriate for a project of this scope, although the management arrangements are rather complex especially at the national level.	Para 74-90
Are roles and responsibilities clearly defined?	Roles and responsibilities are clearly defined.	Para 74-90, Annexes III, V, VI
Are supervision / oversight arrangements clear and appropriate?	Supervision / oversight arrangements are clear and appropriate.	Para 74-90
<b>Overall rating for Governance and Supervision Arrangements</b>	Satisfactory. The project governance model is clearly described, and is appropriate for a project of this scope with national and regional components. Supervision / oversight arrangements are clear and appropriate.	
<b>Management, Execution and Partnership Arrangements</b>		
Have the capacities of partner been adequately assessed?	Capacities of partners for execution of the project have not been comprehensively and adequately assessed. It is recognized, however, that in all the countries, basic technical expertise is present in government, academic institutions and non-governmental organizations, which indicate that these institutions do have some capacity to take an active part in the project. There are some areas where expertise in	Para 62, 64

	highly specialized disciplines is not available in all the countries. It is anticipated that the project would address these inadequacies very early during project implementation.	
Are the execution arrangements clear?	Execution arrangements are clearly described.	Para 74-90, Inception report
Are the roles and responsibilities of internal and external partners properly specified?	Roles and responsibilities of internal and external partners are properly specified.	Para 74-90, Inception report
<b>Overall rating for Management, Execution and Partnership Arrangements</b>	Satisfactory. Execution arrangements and roles and responsibilities are clearly described in the pro doc and Inception report. Although capacities of partners have not been comprehensively assessed, it is recognized that there are strengths and weaknesses in certain disciplines, and that the latter needed to be addressed. The complex management structure could pose a problem for efficient project coordination.	
<b>Financial Planning / budgeting</b>		
Are there any obvious deficiencies in the budgets / financial planning	No specific deficiencies in financial planning were identified. The original budget appears inadequate for a project of this scope and complexity, especially as most of the pledged co-financing is in-kind.	Table 3, Annex IV
Cost effectiveness of proposed resource utilization as described in project budgets and viability in respect of resource mobilization potential	The proposed resource utilization is satisfactory.	Annex IV
Financial and administrative arrangements including flows of funds are clearly described	Financial and administrative arrangements and flow of funds are described in the project document.	Para 74-76, Annex IV
<b>Overall rating for Financial Planning / budgeting</b>	Moderately satisfactory. There is adequate financial planning and budgeting, which is consistent with UNEP and GEF requirements. The available funds are inadequate for a project of this complexity and scope, especially considering that the co-finance pledged by the countries is mostly in-kind. The project plans to seek funding from elsewhere. Poor individual motivation at the national level that is linked to remuneration was noted by the midterm evaluation.	
<b>Monitoring</b>		
Does the logical framework: capture the key elements in the Theory of Change for the project? have 'SMART' indicators for outcomes and objectives? have appropriate 'means of verification' adequately identify assumptions	The revised logical framework captures the key TOC elements. The project's long-term goal is to enhance the ability of the countries to plan and manage the Volta catchment areas within their territories and aquatic resources and ecosystems on a sustainable basis. It intends to achieve this through a number of activities, including building capacity; developing river basin legal and institutional frameworks; and demonstrating measures to combat water scarcity in the Basin. Indicators are presented for the three objectives and outcomes. The outputs and	Log frame, para 47-48, 51-60, inception report

	outcomes are identical, and some outcomes are in reality activities. The indicators are mixed- some of them are activities and outputs, and some are not easily measurable, others are not realistic within the project timeframe (e.g. Volta Basin Authority (VBA) adopts SAP into their work plan, Demo projects executed resulting in stress reduction). The timeframe (including mid-term and end of project target) is specified. Means of verification are appropriate and assumptions are adequately identified.	
Are the milestones and performance indicators appropriate and sufficient to foster management towards outcomes and higher level objectives?	Milestones are expressed as midterm and end of project targets, and are considered appropriate. Management performance indicators are not given separately, and are considered to be the same as the log frame indicators. One of the activities under Component 3 is to 'Agree on performance indicators for the Volta Basin management project through a broad stakeholder process and a process to monitor those indicators' (under the demo projects). Indicators are included in the preliminary Strategic Action Programme (SAP).	Log frame, para 53, 57-58
Is there baseline information in relation to key performance indicators?	Baseline information is included in the log frame.	Log frame
Has the method for the baseline data collection been explained?	The method for the baseline data collection has not been explicitly explained. However, the Transboundary Diagnostic Analysis (TDA) would have contributed to identifying the baseline including the major perceived problems and issues in the basin and the root causes.	Log frame, para 8, 18-29
Has the desired level of achievement (targets) been specified for indicators of Outcomes and are targets based on a reasoned estimate of baseline?	The desired level of achievement (targets) is specified, although in some cases the targets are not quantified. Targets are based on a reasoned estimate of the baseline. In most cases, the baseline is zero (non-existent).	Log frame
Has the time frame for monitoring activities been specified?	The time frame for progress reporting and monitoring is specified.	Section 6.1, para 94-99, Table 4; para 105, 106, 108, 112, 113
Are the organisational arrangements for project level progress monitoring clearly specified	The organisational arrangements for project level progress monitoring are clearly specified.	Section 6, para 94-113, Inception report
Has a budget been allocated for monitoring project progress in implementation against outputs and outcomes?	A budget has been allocated for midterm and terminal evaluation. The project implementation reviews (PIR) and annual reports are used for regular monitoring of project progress.	Para 91-93, section 6, Annex IV
Overall, is the approach to monitoring progress and performance within the project adequate?	The approach to monitoring progress and performance follows the standard requirements of UNEP and GEF, and is adequate.	Section 6, para 94-113, Inception report
<b>Overall rating for Monitoring</b>	Moderately satisfactory: A comprehensive monitoring and evaluation plan was developed. Monitoring follows UNEP and GEF standards and procedures, including a	

	midterm and terminal evaluation. The revised logframe captures the key elements of the TOC. Some of the outcomes are stated as outputs rather than outcomes, and not all the indicators are 'SMART'. The timeframe (including mid-term and end of project target) is specified and means of verification and the assumptions are adequate.	
<b>Evaluation</b>		
Is there an adequate plan for evaluation?	There is an adequate plan for evaluation.	Para 91-108
Has the time frame for Evaluation activities been specified?	The time frame for evaluation activities including a midterm and terminal evaluation as well as for annual self-evaluation has been specified.	Para 91-108
Is there an explicit budget provision for midterm review and terminal evaluation?	There is an explicit budget provision for midterm review and terminal evaluation.	Project budget Annex IV
Is the budget sufficient?	Yes, the budget is sufficient.	Project budget Annex IV
<b>Overall rating for Evaluation</b>	Satisfactory: There is provision for the midterm and terminal evaluation, for which the budget is adequate.	

#### **Annex 4. Documents consulted for the terminal evaluation**

- Project document
- Project logical framework
- Demonstration project design documents
- Inception Report (June 2008)
- Mid-term Evaluation report (Nov 2011)
- Annual Project Implementation Review reports (2009-2013)
- Annual progress reports (2009-2012)
- Steering Committee meeting reports (1<sup>st</sup> -5<sup>th</sup> meetings).
- Annual work plans and budgets (2009 – 2013)
- MOUs and agreements with countries, UDC
- Monitoring and evaluation plan
- Stakeholder involvement plans (Burkina Faso, Mali, Togo)
- Expenditure report (UNEP)
- Regional workshop reports (TDA/SAP training, TDA inception workshop, CCA workshop, SAP EQOs workshop, TDA validation and SAP planning workshop)
- Study on the analysis of national institutions including ongoing/planned initiatives in Ghana
- Analysis of national institutions and ongoing or planned initiatives in the Volta Basin (Regional Summary)
- Project website (<http://gefvolta.iwlearn.org/>)
- Documentary 'Together for a sustainable development of the Volta River basin resources'
- Final regional Volta River Basin TDA document
- Final regional Volta River Basin SAP document
- UNEP medium term strategy and programme of work
- GEF policies, strategies and programmes pertaining to international waters
- Study on the establishment of a regional system for exchange of data and information on the Volta Basin (Volume 1)
- VBA Strategic Plan
- Terminal project report
- Final demonstration project report Ghana
- UNEP Medium Term Strategy 2014-2017
- GEF international waters policies, strategies, and programmes
- The Accra Declaration (1998)
- Statutes for the Volta Basin Authority

## Annex 5. Persons interviewed for the terminal evaluation

<b>UNEP</b>	
Kelly West (Skype)	Former Task Manager
Christine Haffner-Sifakis (Skype)	Task Manager
Rodney Vorley (Skype)	Fund Management Officer
<b>UNOPS</b>	
Patrick Fruchet (Skype)	Deputy Director, Kenya Operations Centre
<b>Project Management Unit</b>	
Hubert Onibon (Skype)	Regional Project Coordinator
<b>Benin</b>	
Jean Pierre Houélékou	Chef de Service des Politiques et Stratégies Environnementales, Direction Générale de l'Environnement (National Coordinator)
Delphin Aidji	Directeur de la Programmation et de la Prospective, Ministère de l'Environnement, de l'Habitat et de l'Urbanisme (GEF Focal Point)
Bernadin Elegbede	Directeur de la Planification et de la Gestion de l'Eau
Imorou Ouro-Djeri	Chercheur en Sciences Environnementales, Ministère de L'environnement, Charge de la Gestion des Changements Climatiques
Pascal Megnigbeto	National SAP Facilitator
Allomasso Tchokpohoué	Coordinateur de Programme, Gestion des Ressources en Eau, Direction Générale de l'Eau
Kassa Prosper	CARE, Demo project coordinator, Natitingou
Yotto Teto Giles	Benin demo project, Natitingou
Local community members	Benin demo project (Natitingou, Doyakou, Koudegou)
<b>Burkina Faso</b>	
M. L. Wenceslas Somda	Chef de Service Suivi des Organismes de Bassin de la Volta, Direction Générale des Ressources en Eau (National Coordinator)
Kétessaoba Ouédraogo	Independent Consultant (National SAP Facilitator)
Jean-Pierre Mihin	Hydrological Assistant, Volta HYCOS (TDA thematic group)
François Ouédraogo	Water Resources Expert, Ministère de l'Eau (IUCN/PAGEV)
Innocent Ouédraogo	Chargé des Programmes Nationaux, Centre de Coordination des Ressources en Eau (National Focal Point)
Congo Moustapha	Sécrétaire Permanente du Plan d'Action pour la Gestion Intégrée des Ressources en Eau, Ministère de l'Eau, des Aménagements Hydrauliques et de l'Assainissement

Nadine Nare	Directrice de la Législation et de la Réglementation, Direction Générale des Ressources en Eau
Fulgence Ki	Conseiller Technique, GIRE, Ministère Chargé de l'Eau
<b>Cote d'Ivoire</b>	
Alimata Kone Bakayoko	Ministère de l'Economie et des Finances
<b>Ghana</b>	
Fredua Agyemang	Director of Environment, Min Environment, Science, Technology & Innovation
Kwamina Quaison	Min. Environment, Science, Technology and Innovation
Bob Alfa	Water Resources Commission (WRC)
Nicholas Iddi	WRC (National Focal Point)
Ben Ampomah	Executive Secretary, WRC (National Coordinator)
Solomon Danso- Ankamah	WRC Tano Basin Officer, Sunyani (Bole Demonstration Project Manager)
Kwame Odame- Ababio	Consultant in Water Resources Management (National SAP Facilitator)
Charles Addo	Volta River Authority
Eddie Telly	Executive Secretary, PAPADEV (Demo project)
Levina Owusu	Director, PPME, Min Environment, Science, Technology & Innovation
Anastasia Ago Baidoo	Projects Officer, KITE
David Sei Demah	Assemblyman, Bale Community
Chaatey Jeenuur & Dari Pori-Erina	Charcoal producers, Bale
Mumuni Sumani	Village Chief, Sanyeri (Demo project)
Villagers (22)	Demo project participants, Bale Community
<b>Mali</b>	
Mama Yena	Chef, Division Suivi et Gestion des Ressources en Eau
<b>Togo</b>	
Yao Djiwonu Folly	Directeur de l'Inspection des Ressources Forestières, Lome
KagniAttisoh	Dst Mairie, Kara
Badjida Dessougmba	Geslogue a la DRER, Kara
Frederic Ahadji	Ingénieur Eau et Assainissement, Eau Vive
Lebene Kossi Agbemedi	National Operational Focal Point, Directorate of Environment, Lome
Abla A Tozo	Chef Division Gestion des Ressources en Eau, Lome



Gaston Kaka Koulou	Regional Director, Division Gestion des Ressources en Eau, Kara
Koffi Volley	Coordonnateur du Projet FEM- Volta, Direction de l'Environnement, Lome
Allasani Soulemana	SG Marie, Kara
<b>Volta Basin Authority</b>	
Charles Biney	Ag. Executive Director
<b>Other Partners</b>	
Global Water Partnership, West Africa	André Zogo, National Coordinator
	Corneille Ahouansou, Project manager, Water for Growth & Poverty Reduction
	Coulibaly Sidi, Communications Officer
IUCN Central and West Africa Programme, B.Faso	Maxime Somda, Regional Coordinator, PAGE
	Sandrine Sankara Bassonon, Project Coordinator, BRIDGE Africa (Operational Focal Point)
UNEP-DHI Centre for Water and Environment	Niels Ipsen, IWRM Advisor
	Per Bøgelund Hansen, IWRM Advisor
	Peter Bjornsen, Director, UNEP-DHI Centre on Water and Environment

## Annex 6. Evaluation schedule- Country visits and interviews

Dates	Activities
19 April 2015	Arrival of consultants in Accra, Ghana Planning meeting of consultants in Accra
20 -21 April	Demo site visits (Bole, Ghana)
21 April	Meeting with PAPADEV, charcoal producers (Bole)
22 April	Meeting with Ghana demo project manager (Sunyani)
23 April	Meetings in Accra (WRC, Ministry of Environment, KITE)
24 April	Meeting at Volta River Authority, Akuse, Ghana
27 April	Meeting with Volta Basin Authority (VBA), Ouagadougou, Burkina Faso
27 -29 April	Meetings with Ministry personnel and other project partners, Ouagadougou
29 April	Meeting with representatives of Mali and Côte d'Ivoire (in Ouagadougou)
29 April	Wrap up meeting with VBA
01 May	Meetings with Ministry personnel, Cotonou, Benin
02-04 May	Visit to Natitingou demo site (Pendjeri)
06 May	Meetings with Ministry personnel, Cotonou
19 May	Arrival of consultant in Togo
20 May	Meeting with national focal persons and trip to Kara
21 May	Interview with staff at Kara Local Government and Project staff
22 May	Meeting with National Project Coordinator and other national focal persons
09 June	Interview with Regional Project Coordinator (skype)
19 June	Interview with Former and Current Task managers (skype)
08, 09 & 15 September	Interviews with DHI/UDC (skype)
26 October	Interview with UNOPS (skype)
14 January 2016	Interview with FMO (skype)

**Annex 7. Expenditure of GEF funds and co-finance contributions**  
(as at July 2014)

		ALLOCATION BY CALENDAR YEAR									
		ACTUAL									
		2007	2008	2009	2010	2011	2012	2013	2014	2015	Total
UNEP BUDGET LINE/OBJECT OF EXPENDITURE		US\$	US\$	US\$	US\$	US\$	US\$	US\$	US\$	US\$	US\$
<b>10</b>	<b>PROJECT PERSONNEL COMPONENT</b>										
1100	Project Personnel	0	0	392,626	291,487	559,397	188,181	236,082	3,427	0	1,671,200
1200	Consultants w/	0	0	193,963	77,441	76,315	286,126	82,705	0	0	716,550
1300	Administrative support	0	0	31,575	19,118	37,771	21,581	39,554	-15,630	0	133,968
1600	Travel on official business	0	0	73,060	41,583	62,456	31,644	67,472	31,073	0	307,287
	<b>1999 Component Total</b>	<b>0</b>	<b>0</b>	<b>691,223</b>	<b>429,629</b>	<b>735,939</b>	<b>527,532</b>	<b>425,813</b>	<b>18,870</b>	<b>0</b>	<b>2,829,006</b>
<b>20</b>	<b>SUB-CONTRACT COMPONENT</b>										
2199	Sub-contracts (UN agencies)		0	0	0	0	0				0
2299	Sub-contracts (non-profit organizations)			47,736	133,669	132,276	226,003	215,502	14,501	68,188	837,874
	<b>2999 Component Total</b>	<b>0</b>	<b>0</b>	<b>47,736</b>	<b>133,669</b>	<b>132,276</b>	<b>226,003</b>	<b>215,502</b>	<b>14,501</b>	<b>68,188</b>	<b>837,874</b>
<b>30</b>	<b>TRAINING COMPONENT</b>										
3299	Group training	0	0	28,622	69,778	91,691	10,785	1,866	-8	0	202,733
3300	Meetings/conferences	0	0	77,491	120,079	169,963	94,335	120,479	-723	0	581,624
	<b>3999 Component Total</b>	<b>0</b>	<b>0</b>	<b>106,113</b>	<b>189,857</b>	<b>261,654</b>	<b>105,120</b>	<b>122,345</b>	<b>-731</b>	<b>0</b>	<b>784,358</b>
<b>40</b>	<b>EQUIPMENT &amp; PREMISES COMPONENT</b>										
4100	Expendable equipment	0	0	8,801	8,403	5,138	26,153	3,469	-431	0	51,533
4200	Non-expendable equipment	0	0	9,996	4,445	48,294	278	0	750	0	63,763
4300	Premises	0	0	923	816	4,140	4,930	5,081	-3,031	0	12,859
	<b>4999 Component Total</b>	<b>0</b>	<b>0</b>	<b>19,720</b>	<b>13,664</b>	<b>57,572</b>	<b>31,361</b>	<b>8,550</b>	<b>-2,712</b>	<b>0</b>	<b>128,155</b>
<b>50</b>	<b>MISCELLANEOUS COMPONENT</b>										
5199	Operation and maintenance c	0	0	0	1,828	4,296	1,626	3,282	20,992	0	32,024
5299	Reporting costs (publications	0	0	5,535	41,256	23,170	14,167	112,846	0	0	196,974
5399	Sundry (communications, pos	0	0	9,115	15,234	16,173	6,588	9,935	-873	0	56,172
5499	Hospitality and entertainment	0	0	0	0	0	0	0	0	0	0
5500	Evaluation (consultants fees/travel/	0	0	70,355	87,899	150,128	72,800	40,042	-34,697	58,477	445,005
	<b>5999 Component Total</b>	<b>0</b>	<b>0</b>	<b>85,005</b>	<b>146,217</b>	<b>193,767</b>	<b>95,181</b>	<b>166,105</b>	<b>-14,578</b>	<b>58,477</b>	<b>730,174</b>
	<b>GRAND TOTAL COSTS</b>		<b>0</b>	<b>949,797</b>	<b>913,035</b>	<b>1,381,208</b>	<b>985,197</b>	<b>938,315</b>	<b>15,350</b>	<b>126,664</b>	<b>5,309,566</b>

**Summary of co-financing from the VRB countries and other partners (Source: Inception Report)**

Country/Partner	Amount pledged for the project (\$)	Total contribution (2008-2013)	
		\$	%
Country			
Benin	418 200	270,143	65
Burkina Faso	267 353	248,155	93
Côte d'Ivoire	915 000	791,000	86
Ghana	690 000	525,425	76
Mali	314 270	130,175	41
Togo	819 916	752,902	92
Total	3 424 739	2,717,799	79
Partner			
UNEP	60 000	60,000	100
Hungary	10 000	Not available	
Czech Rep.	50 000	Not available	
IUCN	620 000	2,160,591	348
ECOWAS/EU	1 962 500	276,226	14
SIAAP	471 000	911,256	193
MCA Burkina Faso			
Total	3 173 500	3,408,074	107
Grand Total	6 598 239	6,125,873	93

### Annex 8: Summary of achievement of expected outputs and outcomes

Expected Results	Achievements of Outputs at end of project	Status at TE	Rating
Objective 1: Build capacity, improve knowledge, enhance stakeholders' involvement to support the effective management of the VRB			
1.1 Project Managed and coordinated to partners' satisfaction.		Completed	S
1.1.1 Establish the Project Management Unit and governance system including PMU, MOUs, PSC, PTF, NFP, NIC etc.	<ul style="list-style-type: none"> <li>PMU was established in Water Resources Commission, Ghana and full time staff were recruited and trained.</li> <li>All other project management (PMU, MOUs, PSC, PTF, NFP, NIC, Inception report, etc.) were established and trained.</li> <li>Project signed MOAs with all the six participating countries.</li> <li>Inception meeting held in all six countries to introduce and discuss the project (logframe, workplan, activities, budget, institutional framework, collaboration, etc.) at high authority level and seek additional information.</li> </ul>	Completed	S
1.1.2 Develop and implement project monitoring and evaluation plan.	<ul style="list-style-type: none"> <li>Project M&amp;E Plan developed by the PMU and approved by the PSC at project inception workshop.</li> <li>The M&amp;E plan was used in monitoring the project using the indicators.</li> </ul>	Completed	S
1.1.3 Identify linkages with other partners, develop and implement collaboration plan.	<ul style="list-style-type: none"> <li>Linkages with partners and collaborators (Volta-HYCOS, SIAAP, VBA, IUCN/PAGEV, GLOWA, ECOWAS/WRCC, EU Volta Initiative, IWMI, Volta Basin Observatory Project and many others) identified and established.</li> <li>Collaboration agreements between project and other partners signed.</li> <li>Project assisted VBA in preparing its programmes including 5-year strategic plan.</li> <li>Project prepared and signed collaboration framework with VBA.</li> </ul>	Completed	HS
1.1.4 Carry out project reports (inception report, Half Yearly and annual reports)	<ul style="list-style-type: none"> <li>Five PSC meetings were held in Mali (2008), Côte d'Ivoire (2010 and 2012) and, Togo (2011 and 2013).</li> <li>All mandatory project reports (project studies reports, project annual reports, PIRS, financial reports, quarterly reports and demonstration project reports, midterm evaluation and end of project terminal reports, workshops/meetings reports) prepared and approved by PMU, UNEP and the PSC.</li> </ul>	Completed	S
1.2 Capacity & participation of stakeholders in VRB management strengthened.		Completed	S
1.2.1 Conduct training on TDA/SAP process for NFPs.	<ul style="list-style-type: none"> <li>A plan for engaging stakeholders in the TDA/SAP developed and included in methodology of TDA/SAP development.</li> <li>National partners/stakeholders trained in TDA/SAP process methodology.</li> <li>Stakeholders participated in various regional and national TDA/SAP training workshops/thematic meetings (planning, validation, causal chain analysis, environmental quality objective definition, etc.).</li> </ul>	Completed	S
1.2.2 Analysis of national institutions and stakeholders and preparation of stakeholders' involvement plan.	<ul style="list-style-type: none"> <li>Three main studies were undertaken and completed by consultants.</li> </ul>	Completed	S

1.2.3 Conduct training sessions for national institutions and stakeholders on IWRM and IRB management.	<ul style="list-style-type: none"> <li>• Project participated in/contributed to organisation of various workshops, meetings and for/related to project at regional and national levels.</li> <li>• A number of training and awareness creation workshops organised by VBA and IUCN/PAGEV and VBO for regional and national partners and stakeholders including training in IWRM and IRB.</li> <li>• Project team members from the six countries benefited from study and exchange visits (visit to ORASECOM (Orange-Senqu River Commission) in Pretoria, South Africa).</li> </ul>	Completed	S
1.2.4 Conduct training sessions for national institutions on data management and monitoring and, clearinghouse system.	<ul style="list-style-type: none"> <li>• VB-ISS developed with support from UNEP/DEWA and migrated to VBO.</li> <li>• Project with support from UNEP/DEWA organised training on the VB-ISS in Burkina Faso in 2010.</li> </ul>	Completed	S
1.2.5 Conduct training on SAP implementation at national and regional levels.	<ul style="list-style-type: none"> <li>• Training on SAP implementation at regional and national levels suspended</li> <li>• Fund raising by VBA to fund SAP is currently on going.</li> </ul>	Completed	S
1.3 Knowledge based expanded & basin-wide communication mechanism in place.		Completed	S
1.3.1 Conduct study on data inventory and assessment including data sharing mechanism, training gaps and training plan.	<ul style="list-style-type: none"> <li>• Study relating to the Establishment of Regional Information and Data Exchange Mechanism in the Volta River Basin (including analysis of existing metadata, data holding institutions, training gaps and plan) completed.</li> <li>• The study reports (national and regional) disseminated, used as guidelines/references for the development of the Volta Basin data sharing and clearinghouse mechanism, during the TDA/SAP process and other studies conducted by various partners at regional and national levels.</li> </ul>	Completed	S
1.3.2 Support and/or contribute to studies on the establishment of the Volta Basin Observatory through database, data collection and data sharing protocol.	<ul style="list-style-type: none"> <li>• Data holding institutions and existing Metadata were identified.</li> <li>• Volta Basin Information Sharing System (VB-ISS) developed with the support of UNEP/DEWA, migrated to the Volta Basin Observatory system and used as reference for the training of national partners.</li> <li>• Volta Basin data portal page was developed and linked with the VBA's webpage to serve as the point of access for all data portal related to the Volta Basin</li> <li>• Support provided to the VBA for the installation of a Basin data platform through the procurement and installation of: one hardware server, one UPS, the ArcGIS Server software, the ArcGIS desktop, the MS SQL Server 2005, and VBA staff trained on the use of the Arc GIS software</li> <li>• The ongoing population of the VB-ISS done in coordination with the VB Observatory based on information (metadata) available at the observatory (including those received from countries)</li> <li>• Contribution to the preparation of the Volta Basin Observatory work plans and various studies related to the establishment and operationalization of the analysis of the basin's water audit, socioeconomic and environmental situation, the problem areas and issues regarding the sustainable management of water resources</li> <li>• Contribution to the preparation and participation in Volta Basin Observatory workshops, meetings and tracings on ground water, water related diseases, water audit, forum of parties involved in the Development of the Basin, Volta Basin Observatory steering committee meetings, etc.</li> </ul>	Completed (and data collection from the participating countries is still on going to populate the data base).	MS

	<ul style="list-style-type: none"> <li>Platform for the VB-ISS hosted by UNEP (<a href="http://unepdewaags.org/vbiss3">http://unepdewaags.org/vbiss3</a>).</li> </ul>		
1.3.3 Organize one scientific workshop in collaboration with UNESCO, GTZ, GLOWA, WASCAL, etc.	<ul style="list-style-type: none"> <li>Activity was dropped in 2009 on recommendations of the MTE and funds reallocated.</li> </ul>	-	-
1.3.4 Develop and update project website	<ul style="list-style-type: none"> <li>Project website hosted by IW: Learn site.</li> </ul>	Completed	S
<b>Objective n° 2: Develop river basin legal, regulatory and institutional frameworks, and management instruments for addressing transboundary concerns in the Volta River Basin and its downstream coastal area</b>			
2.1: VRB regional coordination mechanisms supported.		Completed	S
2.1.1 Advocate at Ministerial level and through project meetings, workshops and reports, the importance of ratifying the basin convention.	<ul style="list-style-type: none"> <li>All six countries have ratified and deposited Ratification Instruments.</li> <li>VBA convention came into force in April 2009.</li> </ul>	Completed	HS
2.1.2 Insert and mainstream the TDA, SAP and APNP-VRB into the VBA policies, strategies and plans.	<ul style="list-style-type: none"> <li>The VBA was involved in the TDA/SAP process: establishment and review of national TDA reports and regional thematic reports, regional TDA document, SAP Document (including action sheets) national/regional TDA/SAP workshops and meetings; SAP vision, EQOs, components and institutional arrangement, outlines and guidelines of various reports, discussions on TDA/SAP methodology and work plan, link between Volta Basin SAP, water charter and master plan, etc.</li> <li>The six countries ratified Convention on the Status of the Volta River.</li> <li>VBA established in 2009 and functional.</li> <li>VBA participated in TDA and SAP preparation processes and training.</li> </ul>	Completed	S
2.2: Transboundary Diagnostic Analysis (TDA) updated and finalised.		Completed	S
2.2.1 Review the preliminary TDA, identify gap and prepare detailed methodology for TDA finalisation and SAP/APNP-VRB development.	<ul style="list-style-type: none"> <li>The study relating to the review of the preliminary TDA document and preparation of methodology for new TDA and SAP development, including TORs for consultants completed, disseminated and used by the PMU during the basin TDA/SAP process.</li> <li>Methodology for TDA finalisation completed in 2008.</li> </ul>	Completed	S
2.2.2 Organize starting regional/national workshops with national, regional and international institutions and stakeholders.	<ul style="list-style-type: none"> <li>Harmonisation and planning meeting held with TDA regional consultants in December 2009 in Lomé (Togo).</li> <li>Regional TDA starting workshop held in December 2009 in Lomé (Togo).</li> <li>National TDA starting workshops held in the six riparian countries in 2010.</li> <li>Four thematic meetings organised per country in support to TDA national TDA consultants.</li> <li>TDA regional experts working sessions organised.</li> </ul>	Completed	S
2.2.3 Update and complete the TDA document including situation analysis and causal chain analysis.	<ul style="list-style-type: none"> <li>Six national TDA reports completed and reviewed by the PMU.</li> <li>TDA regional experts finalised and disseminated national TDA reports.</li> <li>Causal Chain Analysis Workshop organised in Ghana (2010).</li> <li>Regional thematic report on the Volta Basin water resources, ecosystems economic and governance analysis finalized.</li> </ul>	Completed	S

	<ul style="list-style-type: none"> <li>Regional TDA document completed, reviewed, re-updated, translated into French and shared with project partners/stakeholders.</li> </ul>		
2.2.4 Organize validation regional workshop with national, regional and international institutions and stakeholders.	<ul style="list-style-type: none"> <li>National TDA validation workshops organised in the six countries.</li> <li>A TDA regional validation workshop held in Cotonou, Benin (2012).</li> </ul>	Completed	S
2.2.5 Finalise the regional TDA document (including thematic reports) based of the validation workshop recommendations.	<ul style="list-style-type: none"> <li>Regional TDA document updated based on recommendations from the validation workshop and comments received from appointed TDA reviewers.</li> </ul>	Completed	S
2.2.6 Edit, print and the regional TDA document (including thematic reports)	<ul style="list-style-type: none"> <li>Regional TDA document were edited based on feedback received from various partners and consultants.</li> <li>Printing of regional TDA Document completed.</li> </ul>	Completed	S
2.2.7 Disseminate TDA document (including regional/national TDA, Thematic TDA reports)	<ul style="list-style-type: none"> <li>Regional TDA document disseminated.</li> </ul>	Completed	S
2.3. Action Sheets for the National Parts of the VRB (ASNP-VRB) developed	ASNP-VRB developed and incorporated in the SAP	Completed	S
2.3.1 Organize 6 workshops at country level (with national institutions and stakeholders) as input to the APNP-VRBs elaboration.	<ul style="list-style-type: none"> <li>National SAP/ASNP-VRBs planning workshops held in the six countries (September-October 2012).</li> <li>Thematic groups established by the countries and thematic meetings held as per agreed work plan during national SAP workshops.</li> </ul>	Completed	S
2.3.2 Prepare the National Action Sheets (including APNP-VRBs implementation guideline, monitoring & evaluation system for APNP-VRBs implementation, long term financing strategy for the APNP-VRBs).	<ul style="list-style-type: none"> <li>Guidelines for action sheets submission were prepared and discussed during regional and national SAP planning workshops.</li> <li>Environmental quality objectives and associated actions identified during national workshops and filling of national actions sheets completed.</li> <li>ASNP –VRBs finalised and integrated into the Volta Basin SAP action sheets with support of national SAP facilitators.</li> </ul>	Completed	S
2.3.3 Submit ASNP - VRB to PMU and regional TDA team for validation.	<ul style="list-style-type: none"> <li>National actions sheets reviewed by PMU, regional SAP consultants, discussed with UNEP and VBA and finalised.</li> </ul>	Completed	S
2.3.4 Finalize and submit ASNP -VRB documents to national authorities for endorsement.	<ul style="list-style-type: none"> <li>National actions sheets were updated by national partners and finalisation by regional consultants.</li> </ul>	Completed	S
2.3.5 Edit, print and disseminate ASNP – VRB	<ul style="list-style-type: none"> <li>National actions sheets were edited and printed as annex of the Volta Basin SAP (see SAP report, pages 49-113).</li> </ul>	Completed	S
2.4 Strategic Action Programme (SAP) prepared.		Completed	S
2.4.1 Organize starting regional/national workshops with national, regional and international institutions and stakeholders.	<ul style="list-style-type: none"> <li>SAP regional inception meeting organised in Burkina Faso (July 2012) with the involvement of UNEP, VBA, PMU, SAP Team Lead and Economic Development Expert.</li> <li>Regional SAP planning workshop took place in Benin (August 2012).</li> </ul>	Completed	S
2.4.2 Prepare the Strategic Action	<ul style="list-style-type: none"> <li>SAP Environmental Quality Objective workshop held in Burkina Faso (February 2013).</li> </ul>	Completed	



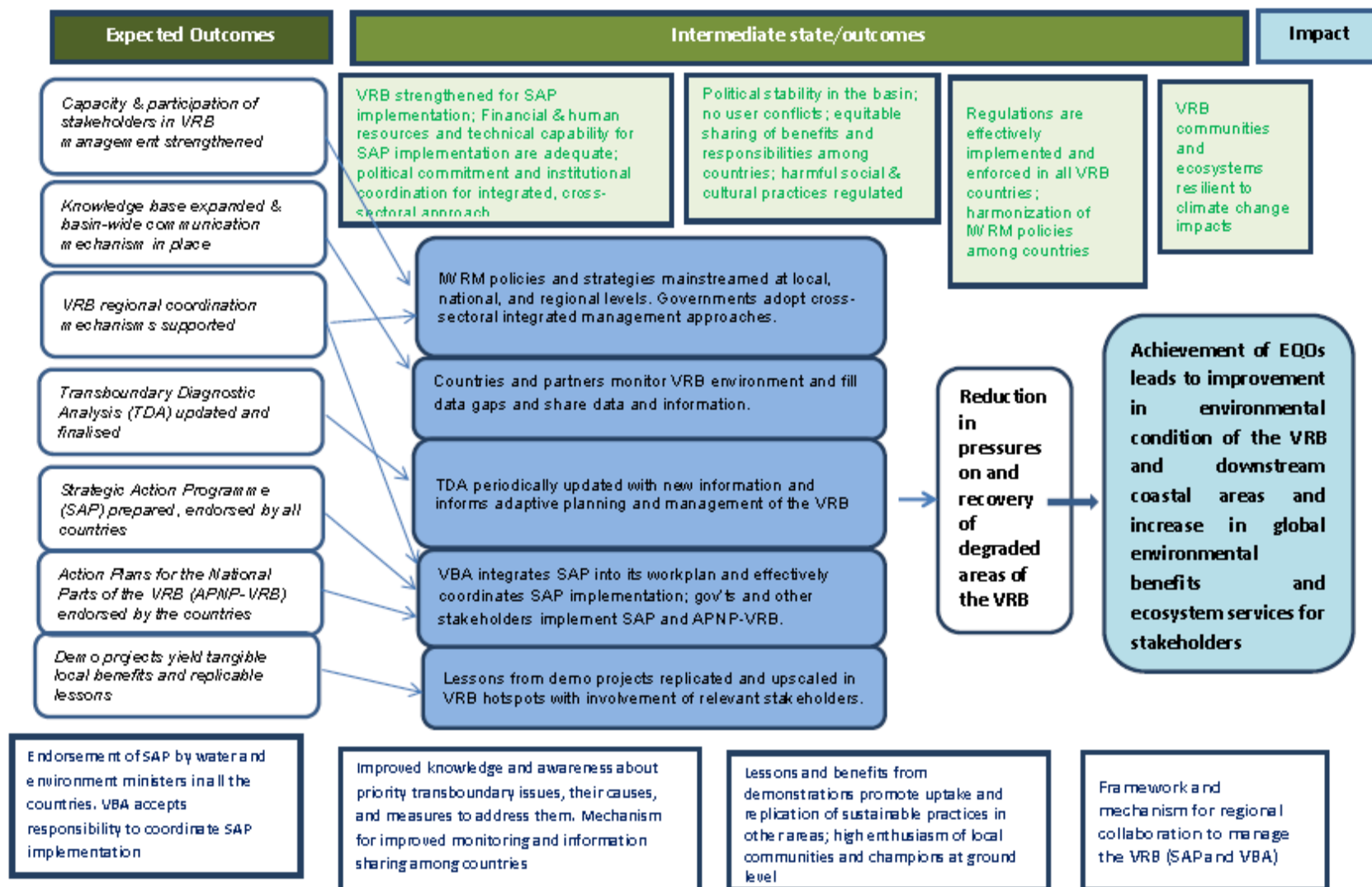
Programme document, including SAP implementation guideline, monitoring & evaluation system for SAP implementation, long term financing strategy for the SAP.	<ul style="list-style-type: none"> <li>• SAP regional action sheet drafted and reviewed.</li> <li>• SAP document drafted, reviewed, re-updated, translated into French and shared with project partners.</li> </ul>		
2.4.3 Organize validation regional workshop with national, regional and international institutions and stakeholders.	<ul style="list-style-type: none"> <li>• SAP validation workshop organised in Lome (November 2013).</li> </ul>	Completed	S
2.4.4 Submit the SAP document to: i) the Steering Committee for approval and, ii) Ministers in charge of Water and Environment for the endorsement (ideally in conjunction with RBO Ministerial meeting)	<ul style="list-style-type: none"> <li>• SAP drafted, finalized and endorsed at ministerial level (Water and Environment Ministers).</li> <li>• Volta Basin Authority (VBA) adopts SAP into their work plan.</li> <li>• SAP finalised and endorsed by December 2013.</li> <li>• VBA adopted SAP.</li> </ul>	Completed	S
2.4.5 Start the fundraising process by establishing contact and involving some donors/partners in the TDA/SAP process: American EPA, World Bank, African Water Facility, BOAD, KfW, etc.	<ul style="list-style-type: none"> <li>• SAP implementation discussed during fundraising meetings with potential donors (US EPA, USAID, World Bank, GEF IW, KfW, GIZ, AfDB, DANIDA, AFD, etc.).</li> <li>• Mission initiated to the World Bank (WB) headquarters in Washington (September 2011) to submit concept note seeking the WB's support for implementation of VBA's strategic plan.</li> <li>• WB in collaboration with the VBA and other key partners (including GEF Volta, IUCN, etc.) conducted institutional audit of the VBA.</li> <li>• WB funding arrangements ongoing and aspects of SAP selected under the WB project and currently being implemented by VBA.</li> </ul>	Fund raising process started and ongoing.	MS
<b>Objective 3 - Demonstrate national and regional measures to combat transboundary environmental degradation in the Volta Basin</b>			
3.1: 3 Demo project successfully implemented.		90% completed (work on Demonstration project in Togo is about 80% completed).	MS
3.1.1 Review and update demo project documents (logframe, activities, budget, M&E plan and work plan) and prepare inception reports.	<ul style="list-style-type: none"> <li>• Review of each demonstration project (including situation analysis, objectives, logframe, activities, work plan and budget, institutional framework) completed and updated Demo Project documents validated and shared with PSC and key partners.</li> <li>• Guidelines for the implementation of each Demo project prepared by PMU.</li> <li>• Planning workshops organised with national partners and local stakeholders.</li> <li>• In each of the six countries, inception report prepared by demo project coordinators and approved by local and national stakeholders.</li> <li>• Demo projects' national project implementation bodies established and functional.</li> <li>• Support provided to national institutions for a better understanding of key issues addressed by each Demo Project.</li> </ul>	Completed	S
3.1.2 Implement the Demo project no 1:	<ul style="list-style-type: none"> <li>• MOA was prepared and signed with the government of Mali.</li> </ul>	Completed	S

<p>Joint management by Burkina Faso and Mali of a flow release warning system in the Sourou river valley (tributary of Black Volta River or Mouhoun).</p>	<ul style="list-style-type: none"> <li>• Organisation of several coordination meetings with MCA Burkina Faso and national partners (Mali and Burkina Faso) for the implementation of the Demo Project.</li> <li>• The HEC-RAS model was selected as a result of an MCA Burkina Faso funded study and following deliberations with key partners.</li> <li>• The study on the development of an empiric early warning system through the establishment of relation between water level, floods and inundations in the Sourou basin completed and the report used by national partners as a reference tool for planning and management purposes.</li> <li>• The GIS mapping of the project area in Burkina Faso completed.</li> <li>• Extension of GIS mapping to the project area in Mali discussed and planned with national partners and MCA Burkina Faso.</li> <li>• Support provided to national Partners in Mali for the installation hydro-meteorological equipment.</li> <li>• Data needed to operate the early warning system in the two countries collected.</li> <li>• Contribution to the establishment of the bilateral committee in view of a joint management of the basin (initiative funder funded by the IUCN Sourou IWRM project).</li> </ul>		
<p>3.1.3 Implement the Demo project no 2: Installing and comparing technological models of waste water treatment in the Cities of Kara (Togo) and Natitingou (Benin).</p>	<ul style="list-style-type: none"> <li>• PMU, UNEP, VBA and National/Local stakeholders agreed on Demo institutional framework and an MOA signed by UNOPS, KOEC and SIAAP (as Demo Project executing agency).</li> <li>• Proposed Demo Project site in Togo assessed by the PMU and UNEP/DGEF (August, 2009) and its feasibility discussed with national partners.</li> <li>• Demo Project 2 in Togo readjusted by small scale wastewater treatment plants in the Ewawu area (Kara city) and to connect those plants to the wastewater networks funded by SIAAP.</li> <li>• The construction of the wastewater network initially planned (about 5000 linear meters) in Ewawu area (Kara, Togo) completed.</li> <li>• The following studies were completed during the reported period: i-) Feasibility study for the construction of the wastewater treatment plant and its connection to the network; ii-) Study on the appropriate technology for the construction of the small scale treatment plant and its connection to the network in the Ewawu area; iii-) environmental impact assessments; iv-) Study for the construction of the treatment plant based on the two options envisaged (Option A for the construction of the plant at the confluence with the Kara River. Option B for the construction of small scale treatment plants and the outlet of the three tertiary wastewater networks); v-) Study for the construction of the additional collector linking the network to the treatment plant (as per Option A), vi-) Feasibility study for the connection of mosques, schools, restaurants and other major public/private institutions to the network</li> <li>• Construction of the wastewater treatment plant on-going.</li> <li>• Several sensitisation and awareness creation activities organised in the Demo area, mainly on water and environmental sanitation issues.</li> <li>• Several field visits undertaken by SIAAP, PMU, National authorities and other partners.</li> </ul> <p><u>Demo project in Benin:</u></p> <ul style="list-style-type: none"> <li>• Field visit carried out in collaboration with IUCN/PAGEV, Benin National Water Partnership and the National Coordinator in view of the identification and main concerns and priorities.</li> </ul>	<p>80% completed (the network is completed but not the treatment plant and there is no household water supply as at TE).</p>	<p>MS</p>

	<ul style="list-style-type: none"> <li>• Several discussions held with national partners in Benin to agree on way forward.</li> <li>• Preparation of the demo project document and signature of a grant agreement with the Government of Benin.</li> <li>• Several capacity building, sensitisation and awareness creation activities (including radio programmes in local language) conducted on issues pertaining to forests and water resources management.</li> <li>• Protection of three hotspots at the source of the Kounnériver (tributary of the Pendjaririver).</li> <li>• Restoration/protection of seven hotspots along the Kounné river bank.</li> <li>• Establishment of firewall and preparation and implementation of plans for the monitoring and management of protected hotspots.</li> <li>• End of demo project report prepared, reviewed and submitted to PMU.</li> </ul>		
3.1.4 Implement the Demo project no 3: Restoring and protecting the river beds of the Black Volta River (Côte d'Ivoire & Ghana) and its tributaries through participative campaigns of reforestation	<ul style="list-style-type: none"> <li>• MOAs prepared and signed with the governments of Côte d'Ivoire and Ghana</li> <li>• Coordination/consultative meetings and monitoring missions organised by and/or with national partners in Ghana and Côte d'Ivoire.</li> <li>• Project Steering Committee meetings held in the two countries as planned.</li> <li>• Bilateral committee established and two Bilateral Steering Committee meetings organized.</li> <li>• Several trainings, sensitisation and awareness creation activities conducted on issues related to forest and water resource management, land degradation, bush fire, impact of buffer zones and, use of chemicals for fishing and mining and, charcoal production.</li> <li>• Restoration and protection of pilot plots of land along river banks through plantations at different hot spots (including construction of fire belt, plan for the management of the established plantations) completed.</li> <li>• Dredging of river channels in selected hotspots completed.</li> <li>• Monitoring and evaluation plan prepared and socioeconomic study of the beneficiary communities carried out in Ghana.</li> <li>• Acquisition and installation of hydrological equipment in Cote d'Ivoire.</li> <li>• End of demo project report prepared, reviewed and submitted to PMU.</li> </ul>	Completed	S
3.1.7 Evaluate the implementation of the three Demo projects.	<ul style="list-style-type: none"> <li>• Midterm evaluation of the demo projects conducted during the midterm evaluation of the overall.</li> <li>• TE evaluated the performance of the demo projects.</li> </ul>	Completed	S
3.2: Replication strategy for demonstration project developed and initiated.	This output was dropped upon MTE recommendation.	-	

## Annex 9a.Theory of Change for the Volta Project

(Assumptions are in green font along the top, Drivers in blue at the bottom of diagram)



### Annex 9b.Results and ratings of Review of Outcome to Impact (ROtI)

Outputs & Outcomes	Rating	Intermediary	Rating	Impact	Overall
Capacity & participation of stakeholders in VRB management strengthened.  Knowledge base expanded & basin-wide communication mechanism in place.	<b>A</b>	IWRM policies and strategies mainstreamed at local, national, and regional levels. Governments adopt cross-sectoral integrated management approaches.  Countries and partners monitor VRB environment and fill data gaps and share data and information.  TDA periodically updated with new information and informs adaptive planning and management of the VRB.  VBA integrates SAP into its workplan and effectively coordinates SAP implementation; gov'ts and other stakeholders implement SAP and APNP-VRB.  Lessons from demo projects replicated and upscaled in VRB hotspots with involvement of relevant stakeholders.	<b>A</b>	Achievement of EQOs leads to improvement in environmental condition of the VRB and downstream coastal areas and increase in global environmental benefits and ecosystem services for stakeholders.	<b>AA</b>
VRB regional coordination mechanisms supported.  Transboundary Diagnostic Analysis (TDA) updated and finalized.  Strategic Action Programme (SAP) endorsed.  Action Plans for the National Parts of the VRB (APNP-VRB) endorsed.					
Demo projects yield concrete local benefits and replicable lessons.					
		<b>Rating justification:</b> The <b>A</b> rating reflects that the project's intended objectives and outcomes were achieved, and were designed to feed into continuing processes (SAP implementation). The VBA has been designated as the principal institution responsible for the overall coordination, implementation, and oversight of SAP implementation.		<b>Rating justification:</b> The <b>AA</b> rating corresponds to 'Highly Likely' that the impacts will be achieved.	

## **Annex 10. The evaluation consultants**

### **SHERRY HEILEMAN**

#### Education

PhD in Marine Biology and Fisheries, University of Miami Rosenstiel School of Marine & Atmospheric Science;

MPhil degree in Zoology/fisheries biology, University of the West Indies, Trinidad & Tobago.

#### Area of expertise

Includes project development and evaluation, integrated marine and coastal ecological/environmental assessments, fish stock assessment and management, transboundary diagnostic analysis (GEF International Waters projects), and integrated natural resources management.

#### Professional experience

Considerable experience at regional and international levels (Caribbean, Latin America, Sub-Saharan Africa, and Southeast Asia), including over 12 years with international organizations on donor-funded regional and global environmental projects (project design, evaluation, coordination, technical studies, etc). Among these were the Canary Current Large Marine Ecosystem (LME) project (mid-term evaluation); Bay of Bengal LME project (mid-term evaluation); Coastal resilience to climate change project (terminal evaluation); COAST project (terminal evaluation); Caribbean Sea LME Project (TDA); and Gulf of Mexico LME Project and Artibonito River Basin Project (project design). Currently conducting the terminal evaluation of the GEF MedPartnership and CLIMVAR projects (Mediterranean Sea). Also worked with UNESCO-Intergovernmental Oceanographic Commission as the coordinator of the LMEs component of the GEF Transboundary Waters Assessment Project. Considerable experience in tropical fish stock assessment and management and marine integrated environmental/ecological assessments. Author of a number of peer reviewed publications in international journals as well as book chapters.

#### Employment

2003-Present: Independent environmental consultant

2000-2002: UNEP, Division of Early Warning and Assessment (Nairobi)

1995-1999: Institute of Marine Science and Limnology, National Autonomous University of Mexico

1980-1995: Institute of Marine Affairs, Trinidad & Tobago

### **SYLVANA RUDITH KING**

#### Education

PhD in Gender and Development Studies, University of Sussex, UK

MSc in Regional Planning and Management, University of Science and Technology, Ghana

#### Areas of Expertise

Project development, management, monitoring and evaluation, energy and gender policy assessment and planning, trainer in M&E, project design and planning and organizational assessments/studies.

#### Professional Experience

Over 20 years working experience in the above areas of expertise. In addition to being a researcher at the Kwame Nkrumah University of Science and Technology for over 25 years, I have consulted for local

and international organisations as an evaluator, assessor and trainer. Some assessments carried out include 'Assessment of National Capacity for Measuring and Reporting Energy Poverty in Ghana', commissioned by UNIDO, Geneva, Switzerland, 2012 and 'Gender Assessment of USAID, Ghana', commissioned by USAID Ghana. Some of the evaluations I have undertaken include 'Institutional Support to Integrate Climate Change and Disaster Risk into National Development' commissioned by UNDP, Ghana, 2015; "Greening the Cocoa Industry" for EO/UNEP, 2013; and "Strengthening Trade Union Participation in International Environmental Processes" for EO/UNEP, 2012.

#### Employment

Currently a senior research fellow at KNUST, Ghana, where I have had over 25 years working experience as a research fellow and lecturer in project planning and management. Worked for two and a half years (2012 – 2014) in the Evaluation Office of UNEP, Nairobi Kenya as Evaluation Manager. About 20 years experience as consultant to several local and international organisations as an evaluator and trainer across Africa and have carried out a number of gender assessments and studies for local and international organisations including USAID in Ghana.