



## 1. Project Data

<b>Project ID</b> P149969	<b>Project Name</b> Volta Basin SAP Implementation	
<b>Country</b> Western Africa	<b>Practice Area(Lead)</b> Water	
<b>L/C/TF Number(s)</b> TF-16611,TF-A0184	<b>Closing Date (Original)</b> 31-Aug-2019	<b>Total Project Cost (USD)</b> 4,338,063.85
<b>Bank Approval Date</b> 21-May-2015	<b>Closing Date (Actual)</b> 31-Aug-2019	
	<b>IBRD/IDA (USD)</b>	<b>Grants (USD)</b>
Original Commitment	10,700,000.00	10,700,000.00
Revised Commitment	8,070,405.00	4,338,063.85
Actual	4,338,063.85	4,338,063.85

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## 2. Project Objectives and Components

### a. Objectives

According to the Project Appraisal Document (PAD) (p. 16) and the Financing Agreement of August 17, 2015 (p.6) the objective of the project was “to improve the capacity of the Volta Basin Authority (VBA) for transboundary water resources management”.

### b. Were the project objectives/key associated outcome targets revised during implementation?



No

**c. Will a split evaluation be undertaken?**

No

**d. Components**

The project included four components:

**Component 1: Water Charter Development for Volta River Basin (appraisal estimate US\$1.99 million, actual US\$1.97 million):** This component was to finance the development of a Water Charter which was to specify roles and responsibilities of riparian countries with regard to water resources use, strengthen the underpinning of VBA to promote coordinated and harmonized water policies in the Basin and define guiding principles for improved water resources development and management for the basin such as better integration of Integrated Water Resource Management (IWRM) where trans-boundary resources are concerned. The Water Charter's objectives were to: (i) facilitate dialogue and cooperation among member States in the planning and implementation of programs and projects that affect water resources; (ii) strengthen solidarity and promote sub-regional integration and economic cooperation among Member States; (iii) specify the regulations for utilization of water resources of the basin; (iv) specify the regulations on the preservation and protection of the environment, especially those relating to water quality; (v) strengthen collaboration on flood management and defining the modalities for exchanging hydro-meteorological data and flood information; and (vi) define the modalities for participation of water users in decision making on management of the water resources of the Volta basin.

**Component 2: Facilitating Dialogue, Communication and Project Monitoring (appraisal estimate US\$1.26 million, actual US\$0.52 million):** This component was to finance the development of a Communications Strategy and Plan which was to serve as the guiding document for improving coordination and collaboration among all relevant stakeholders; and on information sharing on current and planned projects in the Basin. A stakeholder assessment was to be conducted as part of the development of the Communications Strategy and Plan. The component was also to support activities related to participation in the International Waters Learning Exchange and Resource Network (IW-Learn).

**Component 3: Implementation of Strategic Action Program of Priority Actions (SAP) (appraisal estimate US\$6.9 million, actual US\$1.22 million):** This component was to finance the development of projects that were to lead to improvements in water quality, flows and ecosystem services. Priority actions were to include restoration of flows through river bank rehabilitation, reversal of vegetation degradation through reforestation and enhancing of agricultural practices through water-conserving techniques. Furthermore, priority actions were also to include funding for feasibility studies, consultations, capacity building and awareness-raising at the national and local levels and M&E.

This component consisted of three sub-components:

Sub-component 3.1: Reforestation: This sub-component was to finance reforestation in Benin, Cote d'Ivoire, Ghana and Togo, building priority actions based on SAP Actions B.4 (to design and implement a regional program for the protection and restoration of the river banks and gallery forests upstream of Lake Volta) and B.7 (preserve and restore ecosystems of the Pendjari-Oti region), which highlighted the degraded forest ecosystems in these countries.



Sub-component 3.2: River Bank Protection: This sub-component was to finance river bank protection in Burkina Faso, corresponding to SAP Action A.2 (protect all the springs that contribute to the permanent flow of the Mouhoun River), which were to address challenges to the water levels of the tributaries of the Mouhoun River, one of the key streams of the Volta, and situated in the western region of Burkina Faso.

Sub-component 3.3. Development of Market Gardens: This sub-component was to correspond to Action A.3 (develop irrigation infrastructure in the Sourou Basin) and was to be implemented in Mali. Small market gardens were to be developed using water conserving techniques showcasing alternate forms of irrigation applicable for the Sahel.

**Component 4: Project Management (appraisal estimate US\$0.79 million, actual US\$0.53 million):** This component was to finance the strengthening of the management and internal processes of the VBA. Also, this component was to provide support to the Project Coordinating Unit (PCU) to implement the project.

#### e. Comments on Project Cost, Financing, Borrower Contribution, and Dates

**Project Cost:** The project was estimated to cost US\$10.94 million at appraisal; the actual cost was US\$4.42 million. US\$2.63 million was cancelled and US\$3.34 million was undisbursed.

**Financing:** The project was financed by a Trust Fund in the amount of US\$7.2 million of which US\$2.36 million was disbursed and a Trust Fund of US\$3.5 million of which US\$1.98 million was disbursed.

**Borrower Contribution:** The Borrower was to contribute US\$240,000 of which US\$78,446 was disbursed.

**Dates:** The project was restructured on January 15, 2019 to: (i) reduce the number of direct beneficiaries from 50,000 to 6,000; (ii) revise the second intermediate indicator from “surface area forested” to “surface area reforested” and increase the target from 150 hectares to 200 hectares; (iii) reduce the river protection in Burkina Faso from 10 kilometers to five kilometers, finance the provision of material supplies and training to 90 farmers to improve productivity instead of developing 50 hectares of irrigation and change from financing reforestation to the protection of trees; and (iv) reduce the project cost by US\$2.63 million, which was cancelled.

### 3. Relevance of Objectives

#### Rationale

According to the PAD (p. 1) the Volta is a shared river basin connecting the West African countries of Benin, Burkina Faso, Cote d’Ivoire, Ghana, Mali and Togo, covering a surface area of about 400,000 km<sup>2</sup> and extending 1,850 km north-south. The riparian countries of the Volta are characterized by economic differences and disparities of growth that are influenced by several factors such as climate and its impact on natural resources. Burkina Faso and Ghana have the largest share of the basin, with 43 percent and 42 percent respectively, followed by Togo with six percent. Benin, Cote d’Ivoire and Mali have smaller shares. At the time of project appraisal, the total riparian population was estimated at 91 million inhabitants, of which 20 million live in the basin itself. Also, the Volta River basin has substantial economic importance for the diverse countries that share the water resource. However, the riparian countries have not taken



advantage of the Volta River basin to meet their demands for reducing poverty and increasing economic growth. For example, the riparian countries are all facing energy shortages and growing power demand, which is hampering their economic performance. While an important portion of the energy that fuels the economy in some of the riparian countries came from hydroelectric dams within the basin, the remaining hydropower potential of the river was underdeveloped. Agriculture was the main economic activity, the main employer, and a key engine for growth in the basin. However, it was estimated that at the time of appraisal less than 50 percent of the potential irrigable lands of the basin (estimated at 1,487,000 ha) were utilized.

Given the importance of coordinated management of the shared resources of the Volta and the need to harmonize policies across the many institutions that were mandated with management of trans-boundary water resources, the six riparian countries established the Volta Basin Authority (VBA) in 2009. Adopting the principles of integrated water resources management (IWRM) was one of the overarching goals of all riparian countries as well as of the VBA as a basin-wide organization. However, the current institutional arrangements did not adequately allow members states to honor their commitments to the ABV on time. It was critical to address the VBA's many capacity needs at the regional, national and sub-national level such as insufficient knowledge, unreliable data and absence of tools to support decision-making.

The project supported the Cooperation in International Waters in Africa (CIWA)'s objective of strengthening cooperative water resources management and development to enable sustainable, climate resilient economic growth in the region. Also, since the project aimed to strengthen the institutional capacity of the VBA it was aligned with the objectives of the International Waters Learning Exchange and Resource Network (IW-Learn).

Furthermore, the objective of the project was in line with the Bank's most recent Benin Country Partnership Framework (FY2019-FY2023), the Systematic Country Diagnostic Development priority 3 "building resilience to economic and climatic shocks", Togo's Country Partnership Framework (FY2017-FY2020) and its focus area 3 "environmental sustainability and resilience" and focus area 4 "promoting sustainable management of territory, the environment, and living standards." The objective also supported strategic priorities of the Bank's Regional Integration and Cooperation Assistance Strategy (FY2018-FY2023), which included collective action on: (i) public goods and externalities from the management of transnational resources; (ii) natural disasters and adapting to climate change; (iii) resilience to shocks; (iv) strengthening the continent's resilience to climate change impacts on its natural and physical capital and human and social capital; and (v) sustainable management of trans-boundary waters.

## Rating

High

## 4. Achievement of Objectives (Efficacy)

### **OBJECTIVE 1**

#### **Objective**

To improve the capacity of the Volta Basin Authority (VBA) for trans-boundary water resources management:



## **Rationale**

The project's theory of change linked the delivery of outputs--such as the drafting and validating of the water draft by member states, the endorsement of the water charter by council of ministers, the consultation with 500 stakeholders during the development of the communications plan and the validation of the communication plan--with the outcome of improving the capacity of the VBA for trans-boundary water resources management. Also, the project's theory of change linked the same outcome with input activities including the implementation of SAP priority actions in trans-boundary zones, such as the reforestation of 150 hectares to conserve ecosystem functioning, the protection of riverbank and development of infrastructure irrigation as well as improving the capacity to deliver the VBA's mandate.

The project assumed that Bank-executed Institutional Assessment activity would be completed by the start of the project to effectively influence design of Component 1 and 2. Also, the project assumed that the successful implementation of SAP priority actions would demonstrate an improvement of VBA capacity.

## **Outputs:**

- An action plan to implement findings of institutional assessment was developed and validated by member countries, achieving the original target. According to the ICR (p. 17) as part of this assessment a legal and institutional diagnostic analysis was conducted. Also, workshops were held to validate the analysis.
- Water charter was drafted and validated by member states, achieving the original target. Officials were trained to support the water charter ratification process and developed three appendices for the implementation of the water charter. These appendices included: (i) duties, composition, organization, and functioning of the organs created by the water charter; (ii) the prior notification of planned measures; and (iii) the procedure for producing, collecting, exchanging, and utilizing data and information.
- Communications strategy and plan were developed and validated by member countries, achieving the original target. Also, the project established National Focal Structures (NFSs), and implemented a VBA human resources capacity study. According to the ICR (p. 19) NFSs are formal channels between the VBA and the line ministries responsible for water in the countries. The NFSs will facilitate VBA interventions.
- 500 stakeholders were consulted during the development of the communications plan, achieving the target of 500.
- Priority actions were not implemented in the trans-boundary areas of the Volta River basin, not achieving the target of six priority actions being implemented.
- No area was reforested, not achieving the target of 200 hectares being reforested.
- 200 Civil Society Organizations (CSOs) in the basin countries were trained on ecosystem management.

## **Outcomes:**

The ICR did not mention any outcomes.



**Rating**  
Modest

**OVERALL EFFICACY**

**Rationale**

The achievement of the objective was rated Modest.

**Overall Efficacy Rating**

Modest

**Primary Reason**

Insufficient evidence

**5. Efficiency**

**Economic efficiency:**

The PAD (p. 95) conducted a cost-benefit analysis. The PAD stated that several benefits could not be quantified because of lack of usable data. As a result, these were not taken into account in the determination of the project's economic rate of return. These benefits included mainly environmental (such as carbon credits), non-timber benefits such as hunting and biodiversity/ecological protection benefits, which represented returns of significant value for the project. The economic analysis included priority actions under component 3.

The analyses covered 25 years, including four years of project implementation and only considered quantifiable benefit and cost streams. The financial viability of productive investments and the economic attractiveness of the project at the basin level were verified through the computation of Net Present Values (NPVs) and Economic Internal Rates of Return (EIRR) and their comparison with the associated capital investment and the opportunity cost of World Bank funds, estimated at 12 percent.

The analysis calculated a NPV of about US\$2,279,000 and an overall EIRR estimated at 21 percent indicating that the investments under component 3 were to be worthwhile.

However, the activities were ultimately not implemented and activities under component 1 and 2 were not included in the PAD's analysis. The ICR did not include an economic analysis.

**Operational efficiency:**

The ICR (p. 20) stated that the activities under components 1 and 2 were implemented efficiently and within the planned budget. The communication strategy and plans in addition to the action plan were delivered at 41 percent of the approved budget. However, out of the original project cost of US\$10.9 million only US\$4.42 million was disbursed. Also, the project experienced several implementation delays due to the security situation in Burkina Faso, a lengthy restructuring process of 15 months (from November 2017 to January 2019), and



weak procurement and financial management capacity, which all resulted in the reduction of the scope of component 3.

The overall efficiency rating is Negligible.

### Efficiency Rating

Negligible

a. If available, enter the Economic Rate of Return (ERR) and/or Financial Rate of Return (FRR) at appraisal and the re-estimated value at evaluation:

	Rate Available?	Point value (%)	*Coverage/Scope (%)
Appraisal		0	0 <input type="checkbox"/> Not Applicable
ICR Estimate		0	0 <input type="checkbox"/> Not Applicable

\* Refers to percent of total project cost for which ERR/FRR was calculated.

### 6. Outcome

Relevance of objective was High given its alignment with several Bank Country Partnership Frameworks for riparian countries. Efficacy was Modest. Efficiency was Negligible. The project's overall outcome is Unsatisfactory.

#### a. Outcome Rating

Unsatisfactory

### 7. Risk to Development Outcome

**Institutional:** According to the ICR (p. 32) the project design aimed to strengthen the capacity of the VBA. However, this was not fully achieved since the activities under component 3 were not implemented. Capacity that was built will need to be sustained after project closure.

**Financial:** Also, member countries have been investing into the VBA since 2007 and are awaiting tangible outcomes for their investments. Since activities under component 3 were not implemented, no tangible outcomes were produced. The project successfully developed the water charter, thus making it essential to maintain multi-country collaboration among the six member countries in order to implement and achieve the expected impacts of the water charter following its ratification. Additional budget support by member countries will be critical to implement the remaining processes.



**Political:** The project experienced a delay in becoming effective due to the political instability in Burkina Faso. Political instability might occur again in any of the member countries and make trans-boundary collaboration challenging.

## 8. Assessment of Bank Performance

### a. Quality-at-Entry

According to the ICR (p. 29) the project was based on VBA's and member countries' priorities. The Bank team identified relevant risks such as weak capacity in procurement and financial management. However, the risk related to the implementation of the priority actions under component 3 was not identified such as weak capacity within VBA to deliver the priority actions and address the resettlement and land acquisition issues in Burkina Faso. Also, mitigation measures such as providing technical assistance for weak capacity in procurement and financial management were not sufficient and resulted in implementation delays.

The project design had several shortcomings: (i) the implementation plan was complex and VBA did not have sufficient capacity to implement this plan. According to the ICR (p. 25) staff assigned to the implementation of the project also had to fulfill their daily tasks and therefore had very little time for the implementation of the project; (ii) the four year duration of the project was short given that actions under component 3 required feasibility studies which had to be conducted before the implementation of the priority actions; (iii) several shortcomings in regards to M&E such as inadequate definition of indicators and poor timing of planned achievement of targets (see section 9a for more details); (iv) insufficient planning for the risks related to the land acquisition and compensation of the riverbank restoration action in Burkina Faso.

Also, the ICR (p. 23) stated that the Terms of Reference (ToR) for the feasibility studies, necessary for the implementation of the six priority actions under component 3, were not prepared before project implementation. The ICR (p. 30) stated that three of the six sites of the priority actions including Mali were not visited. Also, the feasibility studies were to be conducted in the early phase of project implementation. However, due to absence of certain specialists within the VBA, the procurement process only started six months after the beginning of project implementation. This resulted in implementation delays.

Furthermore, according to the ICR (p. 30) the allocated budget for the irrigation development (feasibility studies and development of irrigation) in Mali was likely insufficient.

**Quality-at-Entry Rating**  
Moderately Unsatisfactory

### b. Quality of supervision





The Bank team (March 30, 2020) stated that the Bank conducted only six implementation support missions. While the Bank also conducted videoconferences and trainings with the VBA to support project implementation, it seems that this was not sufficient given the VBA's weak capacity. Also, according to the ICR (p. 25) the project experienced a high turnover of Task Team Leaders (TTLs) (five TTLs during four years of project implementation), resulting in lack of continuity and proactivity.

The ICR (p. 31) stated that the Bank team repeatedly raised the capacity challenges to the Bank's management team but no action was taken until the Mid-Term Review in November 2017 when a restructuring of the project was recommended. The project restructuring started in November 2017 and lasted until January 2019 due to member countries being invested in the priority actions and finding it challenging to agree on the scope of component 3. This lengthy process resulted in the cancellation of activities, such as support to smallholder farmers in Mali, and had a negative impact on the implementation of component 3.

However, according to the ICR (p. 31) even though the project's scope was reduced, the challenges of weak capacity in the VBA remained. The ICR stated that the Bank only allowed the VBA to hire two staff funded by the project but did not approve of hiring additional staff even though the VBA did not have sufficient funds to do so by itself. Also, according to the ICR (p. 31) the Bank's implementation support was not sufficient for the challenges faced in regards to the component 3 investments. These challenges included, according to the Bank team (March 30, 2020), the lack of feasibility studies for sub-projects under component 3. Also, the ICR (p. 31) stated that the weak capacity of the VBA was partly due to the limited support of its member states such as financial contributions being delayed and at times only partially paid.

Furthermore, the project also faced several M&E challenges. For example, the ICR (p. 28) stated that the project did not consistently use the M&E system to monitor implementation progress. Also, the wording in the Results Framework was not modified even though the wording of the intermediate outcome indicator "area reforested" was changed to "area protected due to awareness raising among the local population on the potential risks of deforestation."

### **Quality of Supervision Rating**

Moderately Unsatisfactory

### **Overall Bank Performance Rating**

Moderately Unsatisfactory

## **9. M&E Design, Implementation, & Utilization**

### **a. M&E Design**

The project's objective was clearly specified. The project's theory of change and how outputs would lead to the intended outcomes were logical. However, while some indicators included in the Results Framework were clearly linked to the PDO such as PDO indicator 1 "action plan to implement findings of institutional assessment developed and validated by member countries", PDO indicator 2 "number of direct beneficiaries" was not. Also, some intermediate outcome indicators such as the second intermediate



outcome indicator “number of priority actions implemented in Volta Basin transboundary zones” did not measure adequately how project activities contributed to the PDO.

The project’s M&E functions were to be carried out by the VBA and a M&E specialist was to be hired. According to the ICR (p. 27) the project’s target were overly ambitious for a four-year project especially since the project included activities such as feasibility studies, nursery production for trees and the development of an irrigation scheme. Also, the Results Framework did not include milestones that would have allowed for monitoring progress throughout implementation instead, most indicators were to be achieved during the last year of implementation.

### **b. M&E Implementation**

During the project restructuring in January 2019 the Results Framework was modified as follows: i) the second intermediate indicator was revised from “surface area forested” to “surface area reforested” and the target was increased from 150 hectares to 200 hectares; and ii) the river protection Burkina Faso was reduced from 10 kilometers to five kilometers, and the provision of material supplies and training for 90 farmers to improve productivity was financed while the development of 50 hectares of irrigation and change from financing reforestation to the protection of trees was cancelled. However, the ICR (p. 27) stated that the project restructuring was not sufficiently used to modify indicators and to make the Results Framework a more useful tool to monitor progress towards the PDO.

According to the ICR (p. 27) the VBA had no M&E specialist and the M&E plan, as outlined in the project execution manual, was not fully implemented. Also, while the VBA submitted M&E plans to the Bank before supervision missions, M&E reports were not produced on a regular basis.

### **c. M&E Utilization**

The ICR (p. 27) stated that the M&E system was not continuously used to track progress towards the PDO or to inform decision-making. While the project used M&E activities such as feedback validation workshops for outputs in the basin countries under component 1, implementation progress of component 3 was not sufficiently tracked.

According to the ICR (p. 28) the project conducted ad hoc M&E activities with email reminders being sent to the coordinator or consultant responsible for tasks to take required actions.

### **M&E Quality Rating**

Modest

## **10. Other Issues**

### **a. Safeguards**

The project was classified as category B and triggered the Bank’s safeguard policies OP/BP 4.01 (Environment Assessment), OP/BP 4.04 (Natural Habitats), OP/BP 4.36 (Forests), OP/BP 4.09 (Pest



Management); Involuntary Resettlement (OP/BP 4.12), and OP/BP 7.50 (Project on International Waterways). According to the ICR (p.28) the project developed an Environmental and Social Management Framework (ESMF) for the infrastructure and physical activities, which were to be financed by the project. However, since the restructuring stopped these activities, these plans were made redundant. According to the Bank team (March 30, 2020) the project also prepared a Pest and Pesticides Management Plan (PPM) and a Resettlement Framework Plan (RFP). The VBA did not hire environmental and social safeguards staff as planned. The ICR (p. 28) stated that this had a negative impact on the implementation of component 3, especially for the Burkina Faso riverbank protection, which included a social evaluation.

According to the Bank team (March 30, 2020), the project complied with all triggered safeguard policies.

## **b. Fiduciary Compliance**

### **Financial Management**

According to the ICR (p. 28) the project had adequate financial management arrangements. The project's financial management rating was Satisfactory throughout its implementation. However, between May and project closing in August 2019 the rating was downgraded to Moderately Satisfactory due to the project accountant resigning and several commitments still being active and expenditures still outstanding. The ICR stated that the financial audit was completed satisfactorily within the grace period. According to the Bank team (March 30, 2020) the external auditor's opinions were unqualified.

### **Procurement:**

According to the PAD (p. 23) weak fiduciary capacity was identified as the main risk at project appraisal. The ICR (p. 29) stated that the Bank tried to mitigate this risk by: (i) strengthening the capacity of the Direction of Administration and Finances (DAF); (ii) providing procurement training to key members of the evaluation committee; (iii) using the Bank's standard bidding documents, requests for proposals, and evaluation reports; iv) developing a project implementation manual which defines administrative procedures for procurement processes; and v) publishing procurement notices in local and well-known newspapers and the VBA webpage. However, the mitigation measures were not sufficient. According to the ICR (p. 29) the project experienced several procurement related delays due to lack of procurement capacity, which had a negative impact on project implementation. The ICR (p. 29) stated that procurement activities related to component 3 suffered from low quality of some procurement documents and processes and delayed disbursement and implementation. Also, the project's procurement specialist left in March 2019. Therefore, the Financial Management Specialist had to perform this additional role. While procurement was mostly rated Moderately Satisfactory throughout project implementation it was downgraded to Moderately Unsatisfactory in the last Implementation Status Report (ISR) in August 2019.

## **c. Unintended impacts (Positive or Negative)**

NA



**d. Other**

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**11. Ratings**

Ratings	ICR	IEG	Reason for Disagreements/Comment
Outcome	Unsatisfactory	Unsatisfactory	
Bank Performance	Moderately Unsatisfactory	Moderately Unsatisfactory	
Quality of M&E	Modest	Modest	
Quality of ICR	---	Substantial	

**12. Lessons**

The ICR (p. 32-35) included several lessons learned which were adapted by IEG:

- **The preparation of complex projects involving multiple countries needs to be given adequate time to identify project sites, design and implement feasibility studies, and mobilize the required technical and financial resources.** In this project, the VBA lacked capacity and experience for implementing a Bank project, due to the lack of M&E, and social and environmental safeguard specialists within the agency. Also, the budget to recruit an environmental specialist and an M&E specialist was limited. All these shortcomings resulted in implementation delays and the cancellation of the implementation of activities under component 3.
- **Results are more likely to be achieved by setting tangible milestones within a realistic implementation time period that allows for capacity development as well as complex collaborations and processes to reach consensus.** For this project, the four year implementation period was ambitious and resulted in the cancellation of several activities.
- **Successful project implementation relies on having the right mix of expertise in the Bank team, especially when the counterpart lacks capacity and requires intensive support. Also, effective capacity-building depends on TTL continuity and adequate transition arrangements when changes.** In this project the Bank team did not have a forestry and irrigation specialist, which resulted in delays in providing support and no objections for Terms of Reference.

**13. Assessment Recommended?**

No

**14. Comments on Quality of ICR**



The ICR provided an accurate account and good overview of project preparation and implementation. Also, the ICR was internally consistent and provided useful lessons learned. However, the ICR did not include an Economic analysis, was mainly output driven, and only provided limited evidence. On balance, the project's ICR rating was Substantial.

**a. Quality of ICR Rating**  
Substantial