

# AUTORITE DU BASSIN DE LA VOLTA

## VOLTA BASIN AUTHORITY



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**Benin – Burkina Faso – Côte d'Ivoire – Ghana – Mali - Togo**

### DEVELOPMENT OF THE MASTER PLAN OF THE VOLTA BASIN AUTHORITY

#### TERMS OF REFERENCE

##### *Guidelines*

**11 May 2012**

#### **I. CONTEXT AND JUSTIFICATION**

- *Physical and institutional context*
- *Creation of the VBA, mandates and vision*
- *Background (major stages), development and progress of the VBA (Inclusion of the Master Plan in the Strategic Plan and legal basis)*
- *Studies already undertaken, Studies in progress, Future studies*
- *Justification of the development of the Master Plan*

*The purpose of the Master Plan is to meet the needs of the people, develop economic activities as well as maintain a good ecological balance of the aquatic environment.*

#### **II. STATE OF THE BASIN**

*Presentation: State of the hydro-meteorological, socio-economic and environmental conditions within the basin as well as the analysis of the problems and challenges facing the sustainable management of the water resources.*

### III. STUDY OBJECTIVES

- *Geographical area of the study (intervention area: watershed)*
- *Surface and ground waters, and related environment (cf. VBA Convention)*
- *Outline(s) of the Master Plan : 2030*
- *Five-year update*

The general objective of the study is the drafting of a Master Plan for the development and management of water resources, a regional framework for the development of the Volta Basin towards:

- the coherent development of the basin;
- an integrated and collaborative management of the water resources and associated ecosystems;
- sustainable management of the various resources of the basin.

The study on formulation of the Master Plan aims at achieving the following specific objectives:

#### Phase 1: Master Plan

1. Translate the VBA mandate into concrete actions to reduce poverty, protect the environment of the basin and strengthen cooperation among member countries of the VBA;
2. Formulate a Master Plan in support of the sustainable development of the Volta Basin;
3. Ensure responsible and sustainable participation of stakeholders in the definition and implementation of the plan;
4. Indicate the modalities for organizational setting and implementation as well as provide the VBA with a tool for efficient coordination among the countries;
5. Propose sustainable development options, cost and benefit sharing and maintenance of the ecosystem diversity.

#### Phase 2: Investment program

Define a detailed investment program on the priority actions of the Master Plan.

- *Definition of the priority areas (or strategic directions): state the priority areas in the ToR, directions of activity and themes or sectors to be further examined;*
- *Comparison and choice of scenarios: use of decision-support tools for the choice of sustainable development options, cost and benefit sharing and the maintenance of the ecosystem diversity;*
- *Short-term investment program (5 years): definition of a detailed investment program on the priority actions of the Master Plan (additional objective of Phase 2);*

- *Cyclical, dynamic, flexible and evolutive design of the Master Plan: possibility for regular update, improvement and consolidation.*

#### **IV. ACTIVITIES AND OUTCOMES**

##### **Phase 1: Master Plan**

###### **Directions and principles for the sustainable development of the basin**

The Consultant shall:

- define the objectives which will become the basis for decision-making with respect to the development of the basin using clear and jointly-planned interventions to prevent non-coordinated approaches;
- confirm the development patterns and formulate operational guidelines for their implementation;
- define the technical (development and management), economic, social and environmental principles.

###### **Justification and development priorities of the basin**

The Consultant shall:

- identify projects and programs of common interest and/or of a transboundary nature to be developed in the framework of the Master Plan to accelerate the shared and integrated development of the basin;
- define cost and benefit sharing scenarios, evaluate their possible impacts on poverty;
- evaluate the impacts of each scenario in terms of food security, employment, environmental protection, migratory movements, prevention and control of water-related risks (flooding, drought, pollution);
- define the necessary additional studies.

###### **Use of decision-support tools**

- estimation of water withdrawals,
- choice of tools and scale of work, taking into account and adapting to experiences in the basin countries,
- collection of hydro-meteorological (rain, temperature, volume), socio-economic (sampling) entry data,
- preparation of a model or models (topology, rain flow-rate modules, propagation, allocation) and setting,
- preliminary study of the scenarios, choice of five main scenarios, comprehensive study, economic optimization including environmental and social aspects,
- choice of scenario,
- study of the compatibility and complementarity of developments and using the outcomes of simulations undertaken and supported by decision- support tools;

- cost-benefit analysis of the various scenarios and proposal of the strategy which seems the most adaptive.

### **Analysis and ranking of priorities**

The Consultant shall:

- develop a Master Plan which takes into account the objectives of VBA and helps to reduce poverty in the member countries;
- take into account other projects or studies undertaken or in progress (*to be listed: PAS/GEF, etc.*);

### **Institutional aspects and modalities of implementation**

The Consultant shall:

- define the modalities for a better integration of the programs of member countries with those of the VBA, and also taking into account those of sub-regional institutions;
- define institutional involvement;
- establish roles and duties of the parties (VBA, member countries, partners, stakeholders) and determine their capacities for implementation;
- define the modalities for capacity development of the various actors,
- define the monitoring and evaluation mechanisms of the implementation of the plan;
- undertake a strategic environmental assessment of the master plan; generally identify the social, economic and environmental impacts of the Master Plan.

### **Phase 2: Definition of the detailed investment program**

The Consultant shall:

- define the additional institutional mechanisms through which transboundary operations can be undertaken;
- prepare files on transboundary and/or common projects, including technical summaries;
- assess the costs and propose financial arrangements for implementation, taking into account cost-sharing among the VBA member countries and the contribution of donors;
- promote partnerships between the public and private sectors, when necessary and at the appropriate time;
- define a coherent and realistic implementation schedule.

## V. METHODOLOGY

### Contents of plan

#### Phase 1: The Master Plan shall include:

- the key outlines of water development and management policies as well as actions for their implementation;
- a multi-sectorial and integrated development action plan;
- an accompanying action plan including measures to support of production; economic, financial and institutional
- a general and regional investment program for the sectors;
- a general programming of actions to be undertaken;
- a computerized and relational planning tool integrating especially the monitoring and evaluation of actions and funding.

#### Phase 2: definition of the detailed investment program

- analysis of the costs of investments, accompanying actions and operating costs.

In addition, the Consultant shall indicate the measures that will facilitate the proper management of the natural resources of the basin, especially the quantitative and qualitative management of the water resources. These measures will ensure coherence between the development program and the sustainable management of the basin's resources. To this end, he shall define:

- minimum flow targets (dry-weather flow, crisis flow) at strategic points to be indicated and rules for withdrawals;
- plans for management of low flows, limited volumes of consumption and sharing among users;
- conditions for the restriction of withdrawals and discharges in crisis situations;
- institutional modalities for the joint management of withdrawals and resources;
- measures for improving water management (regulatory measures, water policing);
- water quality monitoring plan and evaluation criteria;
- measures to combat water-related risks (flooding, drought, water pollution): ecosystem restoration measures;
- quantitative and qualitative improvement of groundwater in the basin.

The methodology proposed by the Consultant will indicate the tools for analysis and planning to be used and how these tools will help to achieve the objectives of the action plan.

The consultant shall propose a division of the basin by sub-basins or large uniform zones.

### Organization and procedure

The major venue for these activities shall be Ouagadougou in Burkina Faso, headquarters of the VBA Executive Directorate.

- *Travel and contact persons in the various countries*

### **Conceptualization of the terms of reference (start)**

The Consultant shall start the study with in-depth analyses of the socio-economic and environmental situation as well as the problems and challenges of sustainable water resource management in the basin.

At the preliminary stage, he will examine the major development opportunities in the basin and will determine the implications for their implementation. The Consultant is expected to delve into the relevance of the defined opportunities and actions to be developed, and identify the benefits accruing from them as well as the sharing of their costs and benefits.

- *Taking into account other relevant studies and projects of VBA (SAP/GEF, GLOWA, etc.)*
- *Consultation and consideration of national master plans: SDAGE, Mouhoun, Nakanbé, Sourou, etc.*
- *Taking into account other regional master plans (agriculture, energy, environment, etc.): ECOWAS, WAEMU, CILSS, etc.*

The Consultant shall suggest, on the basis of the established subsidiarities, the role of the VBA Executive Directorate in the coordinated and concerted implementation of the Master Plan.

The development of the Master Plan involves a progressive preparatory approach supported by a permanent and structured consultation which is widened to cover all actors within the basin. This work shall go on hand-in-hand with a systematic sensitization campaign. The whole of this iterative process among the Consultant, the VBA and country experts as well as the partners of the basin shall underscore the legitimacy of the final document.

These necessary consultations, facilitated by the VBA, shall be done with the various state departments of the Member States, development and management companies, research organizations, concerned national and international institutions and stakeholders.

The Consultant shall produce a data base from a Geographic Information System (GIS) which will facilitate the illustration of the plan. He can also use available data at the VBA. The Consultant shall clearly state in his package the prescribed methodology for the production of this tool, which will provide the necessary harmonization with the current VBA GIS tool.

- *Writing of the final versions (draft and final) of the plan, taking into account comments and amendments of VBA units.*

## **VI. ADMINISTRATIVE ARRANGEMENTS AND REPORTS**

### **Support and services provided by the VBA**

- *Project ownership and management of study*
- *Facilitation*
- *Contacts with countries, role of focal points*

### **Monitoring of study**

- *Steering Committee: composition*
- *Participation of countries, partners, stakeholders*
- *Mode of validation and adoption*
- *Stages of validation (breakpoints)*
- *Number of national meetings (Consultant funding)*
- *Number of regional meetings (direct funding by VBA)*
- *Assumptions and risks*
- *Indicators*

### **Activity schedule**

- *Period of 18 months including the study and validation of documents*
- *Study schedule to be completed*
- *National workshops (consultations): 2 to 3 missions in each country (2 days of validation ...)*
- *Regional Workshops: start, mid-term breakpoints (objectives – areas – sub-divisions – choice of scenarios...), draft final report ...*
- *Number of Committee of experts, Number of stakeholder Forums*
- *Final Council of Ministers*

All these workshops shall be facilitated by the Consultant

### **Results expected from the Consultant**

- *Inception (content to be specified: scoping note) and progress reports*
- *Mid-term reports: breakpoints = working documents for each workshop*
- *Final versions (draft and final = 0 and 1<sup>st</sup> drafts)*
- *Synthesis of Mater Plan*
- *Computerized and relational tool for planning, monitoring and funding of activities (GIS link)*
- *Number of hard and digital (soft) copies*

These reports shall be submitted in two languages: French and English.

The reports shall be completed with sets of maps. The maps shall be designed at an appropriate scale and presented in A3 format. The corresponding data shall be supplied by the Consultant and shall remain the property of the VBA.

### **Documentation**

- *List of available documents put at the disposal of the Consultant by the VBA (including GIS)*
- *Other useful documents*