

**EAST AFRICAN COMMUNITY  
LAKE VICTORIA BASIN COMMISSION**



---

**TERMS OF REFERENCE FOR CONSULTANCY SERVICES  
FOR**

**A PROJECT TO PREPARE INVESTMENT PLANS FOR 15  
SECONDARY URBAN CENTRES UNDER THE LAKE VICTORIA  
BASIN WATER AND SANITATION INITIATIVE**

**in**

**Kenya, Tanzania, Uganda, Burundi & Rwanda**

---

**AUGUST 2008**

## 1. BACKGROUND

Lake Victoria is the world's second largest freshwater lake and the largest in Africa, with a total catchment of 250,000 square kilometres, of which 68,000 km<sup>2</sup> is the actual Lake surface. Located in the upper reaches of the Nile River Basin, the lake waters are shared by the three East African Countries of Kenya (6%), Uganda (43%) and Tanzania (51%). Rwanda and Burundi are a part of the upper watershed that drains into Lake Victoria through the Kagera River and between them, occupy about 18% of the Lake catchment.

The Lake is a major trans-boundary natural resource that is heavily utilized by its bordering countries for fisheries, transportation, tourism, water supply and waste disposal. The Nile Basin outflow is an extremely important freshwater resource for the countries of Uganda, Sudan and Egypt. A map of the Lake Victoria Basin is provided below. (Annex 1 – is a list of towns)

The Lake Victoria Basin, depicted in the map below, supports an estimated population of 30 million people with large concentrations along the lake edge and within the Kagera River Basin, which is shared by Burundi, Rwanda, Tanzania and Uganda. Although there are a few large cities such as Kampala, Kisumu and Mwanza, most of the population lives in rural villages and small towns. However, the region has experienced a process of rapid urbanization over the recent past with the towns, many of which are concentrated along the lake edge, growing at rates far in excess of the regional average of 3% per year. The urbanization process has been accelerating under the impact of several factors, including rural poverty, land pressures and lack of job opportunities in the rural areas.

The economy of the region is characterized by a heavy dependence on the fisheries resources of Lake Victoria, which accounts for over 25% of the Region's GDP. Other important sectors include agriculture, agro-processing, tourism, and small scale manufacturing. The Lake Victoria Basin supports one of the densest and poorest populations in the world with population densities of over 100 persons per square kilometre. Average per capita annual income is estimated to be less than US\$270, which is about 40% of the average per capita income in Sub-Saharan Africa. The problems of human poverty and unemployment are widespread, and are compounded by the rapid increase in population, the ongoing public health challenges posed by the high incidence of HIV/AIDS and malaria, unplanned urbanization and environmental degradation.

For the past 30 years, Lake Victoria has been under considerable environmental pressure from a variety of interlinked human activities, including over-fishing, destructive fishing practices, pollution from human and industrial activities, siltation from the erosion of deforested watersheds and enhanced urban runoff with high sediment loads and large volumes of waste products. The sources of pollution are many, and include, untreated sewage, human and animal waste discharged into rivers and drainage channels, maritime transport waste and direct contamination of lake water by human activities on the shore line. The cumulative impact of these activities are now clearly in evidence with Lake Victoria showing various signs of severe environmental distress, including depleted oxygen levels, eutrophication, reduced transparency and increasing levels of microbiological and chemical pollution.

The critical and multi-faceted role of the Lake as the most important economic resource, the source of much of the region's water supplies, and the ultimate sink for the increasing volumes of waste and erosion material that are generated in the catchments, has created a close linkage between environmental conditions in the Lake basin and issues of human poverty and socio-economic development in the region. In recognition of this linkage, the East African Community (EAC) has taken steps to establish the necessary framework to reverse the deteriorating conditions in the Lake, promote a more sustainable approach to the management and development of the resources in the basin and enhance the socio-economic development of the people living in the Lake Victoria Region.



*The Lake Victoria Basin and its boundaries, including elevations.*

A Protocol on Sustainable Development of Lake Victoria Basin was signed by the three partner states of the East African Community (Kenya, Uganda and Tanzania) on November 29, 2003, and ratified in November, 2004. Article 3 of the Protocol outlines the fourteen areas of cooperation as they relate to conservation and sustainable utilization of the resources of the Basin. Among the areas of cooperation, they include, “the sustainable development, management and equitable utilization of water resources” and “the improvement of public health with specific reference to sanitation”. Further, Article 33 of the Protocol establishes the Lake Victoria Basin Commission as a “body for the sustainable development and management of the Lake Victoria Basin”, with a broad range of functions, including guidance on implementation of sector projects and programmes, promotion of capacity building and institutional development and initiation and promotion of programmes that target poverty eradication.

In 2005, the EAC Secretariat published its “Vision and Strategy Framework for Management and Development of Lake Victoria Basin”. This document, which was developed through a highly consultative process, essentially establishes a shared vision and a long term strategic plan for the sustainable management and development

of the resources of the Lake Victoria Basin. The Framework outlines sector strategies in five policy areas, i) Ecosystems , Natural Resources and Environment, ii) Production and Income Generation, iii) Living Conditions, Poverty and Quality of Life, iv) Population and Demography, and v) Governance, Institutions and Policies.

Within the Framework, a number of strategies have been outlined to reduce the environmental pollution of Lake Victoria and improve the living conditions of the increasing number of people living in the Lake Basin. These include, improved waste management, both solid and liquid, expanded water supply coverage in both urban and rural areas, and better environmental sanitation. The need to build the capacity to plan, construct and manage service delivery systems is also highlighted as well as the need to adopt a coordinated approach within the framework of regional cooperation.

For the past three years, the vision and strategy framework of the stakeholders in the Lake Victoria Basin, as articulated by the EAC, has already been translated into a number of programmes as part of a broader agenda to strengthen shared interest and regional cooperation. These programmes include the Nile Basin Initiative (NBI) and specifically the Nile Equatorial Lakes Subsidiary Action Plan (NELSAP), the East African Communities Organization for the Management of Lake Victoria (ECOVIC), the Lake Victoria Environmental Management Programme (LVEMP), the Lake Victoria Local Region Local Authorities Co-operation (LVRLAC) and the Lake Victoria Water and Sanitation Initiative (LVWATSAN).

LVWATSAN is a regional water and sanitation initiative, currently being implemented in 7 towns in the Lake Victoria Basin through cooperative agreements between UN-HABITAT and the 3 East African Governments of Kenya, Uganda and Tanzania. The Government of the Netherlands has approved the funding of the first phase of the Programme to the tune of approximately US\$ 16 million. The programme comprises an integrated package of interventions, including water supply and sanitation improvements, solid waste management, drainage improvements in key areas, as well as capacity building and training. The programme has served as a platform for strengthening the partnership between EAC-LVBC and UN-HABITAT for the development of the Lake Victoria Basin. LVBC has recognised the important role that LVWATSAN is playing in establishing a replicable model for an integrated approach to addressing water and sanitation and waste management issues in the secondary towns around Lake Victoria. The overall goal of the Programme is to meet the MDG targets in water and sanitation in the project towns and to ensure the long term sustainability of the physical interventions.

The specific objectives are as follows:

- I. Support pro-poor water and sanitation investments in the secondary urban centres in the Lake Victoria Region;
- II. Build institutional and human resource capacities at local and regional levels for the sustainability of improved water and sanitation services;
- III. Facilitate the benefits of upstream water sector reforms to reach the local level in the participating urban centres;
- IV. Reduce the environmental impact of urbanization in the Lake Victoria Basin

Implementation of the LVWATSAN is now ongoing in 7 towns, 2 towns in each of the three participating countries and one town (Mutukula) which straddles the border between Tanzania and Uganda. The implementation strategy for the Programme is

based on a 3-phased approach with the first phase comprising immediate interventions which are designed to address the most urgent water and sanitation needs in the 7 towns. The second phase will focus on training and capacity building while the third phase will address long term interventions. It is expected that the immediate interventions in the 7 towns will be completed in June 2007 and the long term interventions by end of 2009. The capacity building programme has been formulated and a fast-track capacity building programme for water utilities started in April, 2007. Other elements for strengthening the institutional capacity of local government will be implemented in parallel with the long term interventions.

A key component of the Programme is the establishment of a monitoring system, with a comprehensive set of baseline information, to monitor progress in meeting the MDG targets in the project towns. The system is now being established in 15 towns, five towns in each of the 3 participating countries. The Monitoring Systems Branch and the Water, Sanitation and Infrastructure Branch, in collaboration with the National Statistical Offices, have completed the implementation of Urban Inequities Survey in 17 secondary urban centres in Kenya (Migori, Kisii, Homa Bay, Siaya, and Bondo), Uganda (Ggaba, Mukono, Bugembe, Masaka, Kyotera, and Mutukula), and Tanzania (Mutukula, Bukoba, Muleba, Geita, Sengerema, Bunda, and Musoma) as part of LVWATSAN. For each urban centre, information is available to monitor Target 10-water and sanitation as well as Target 11 – slum upgrading. This information addresses different components of improved sanitation adequate water, such as sufficiency, safety and acceptability, affordability and physical accessibility and integrates comprehensively a gender component. They also address different components of other human settlements issues such as durable housing, overcrowding, security of tenure, sources of energy, social capital, income and expenditure, demographic characteristics, education, migration, employment, environment, livelihoods, child morbidity and mortality, maternal and child health, women empowerment, in short, a comprehensive set of information on a majority of MDG indicators.

Based on initial assessments carried out by UN-HABITAT in a sample of 30 towns in the three countries of Kenya, Tanzania and Uganda, urgent needs have been identified for water, sanitation and solid waste management to improve living conditions, reduce poverty, improve environmental conditions and reduce the pollution loads entering Lake Victoria. The Lake Victoria Water and Sanitation Programme has been designed as a model setting initiative to be replicated, in additional towns in the Lake Victoria Basin.

## 2. THIS CONSULTANCY ASSIGNMENT

With the first phase of the Programme now under implementation, the Lake Victoria Basin Commission of the EAC now wishes to achieve an expansion of the Programme into fifteen additional towns. Since the joining of Rwanda and Burundi in EAC, the governments of these countries have expressed a wish to join the initiative. The new phase of the project will therefore include Rwanda and Burundi, both from the point of view of town-level and regional activities. Three towns from each country will be included in the formulation activities.

### *2.1. Objective of the Assignment*

The **objective of the consultancy assignment** is *to prepare an investment plan for the second phase of the Lake Victoria Water and Sanitation Initiative in fifteen selected secondary centres to be presented for financing by external support agencies including the African Development Bank (ADB), based on the lessons learnt from the ongoing Programme. Accordingly, the final report from this assignment should be prepared to a sufficient level of detail to enable the prospective donors to evaluate and conduct an appraisal of the project.*

### *2.2. Approach*

The Consultant shall implement the assignment, following the overall approach adopted by the LVWATSAN Phase I Programme, in terms of quickly identifying the most critical deficiencies in the provision of services that can be addressed in the form of “short-term interventions”, to allow the services providers time to identify the “long-term” requirements while also developing institutional capacity. The short-term works shall be developed and designed in sufficient details to allow bids to be issued for the work to proceed. The *long-term interventions* shall be defined only up to the preliminary design stage, that is, in enough detail to allow for overall appraisal of the investment plan and resulting project, but the related detailed designs shall be prepared during the implementation of the *short-term interventions*.



### **3 SCOPE OF CONSULTANCY SERVICES REQUIRED**

#### **3.1 *Overall Approach***

3.1.1 Prior to commencement of the Consultant's assignment, LVBC in collaboration with the national governments shall have completed prioritisation of 15 urban centres in the Lake Victoria Basin, three in each of the member states to constitute the project area.

3.1.2 The Consultant shall undertake a desk review of all available relevant information and reports on the project areas leading to the attainment of the objectives of the assignment and shall, with the prior agreement of the Client, carry out field surveys to collect additional information as necessary to complete the analyses.

3.1.3 The areas to be investigated fall under the broad sub-sectors of (i) water supply, (ii) sanitation, including wastewater collection, treatment and disposal, (iii) safe disposal of faecal matter, (iv) solid waste, and (v) storm-water drainage. Secondary urban centres will differ in terms of the priority to be accorded to each of the sub-sectors and not all of these may be prioritised in some of the towns. For each sub-sector, solutions will include physical developments and institutional and community capacity building. Solutions should also adequately balance supply augmentation with demand management

3.1.4 Consensus building and workshops. The Consultants shall cooperate with the LVBC which will coordinate the activities of the stakeholders. During the mobilization period the consultant shall obtain a consensus with the key stakeholders on critical issues including criteria for various decisions. The Initial Workshop at which national focal points and other key stakeholders will take part, will consolidate the consensus.

3.1.5 The Consultant will also collaborate with the service providers in each of the selected agencies. The process of identifying "short-term interventions" shall deeply involve these agencies in particular using the exercise to update operational records as the most practical capacity building possible.

### **3.2 *Overview of the Policy and Institutional Framework in the EAC Countries***

3.2.1 The consultants shall present an overview of the policy and institutional framework of the water sector in each of the member countries of the EAC. This will include national policies, strategies and development plans/priorities (including poverty reduction strategies) and how they impact on town-level provision of water, sanitation and solid waste management services.

3.2.2 They shall document key aspects of institutional framework in the EAC countries, that will impact on the project implementation, noting commonalities and differences the position the water and sanitation services within the overall urban sector development as well as the broad WATSAN challenges of the project area, being the Lake Victoria basin.

3.2.3 The analytical phase of this process shall especially identify areas of policy and institutional arrangement that continue to marginalize the poor and disfavour women and children and make necessary recommendations for them to be addressed at the correct levels. Urban legislation that would prohibit market entry into the service provision for small local private sector actors, or exclude the adaptation of appropriate forms of sanitation such as the ecological sanitation should be given special attention. In general the recommendations shall pay particular attention to the needs of the poor, women, children and other special social groups to ensure equitable sharing of benefits.

### **3.3 *Overview of the Sector in Member Countries and in the Basin***

3.3.1 The Consultants shall obtain a rapid overview of the water sector organisation, and performance in the member countries to provide a backdrop to the project activities. This includes a review of sector goals, policies and strategies, ongoing and planned developments, and assessment of the extent to which the countries are on track to meeting the MDGs.

3.3.2 The analysis shall then focus on the Lake Victoria Basin. Overall descriptions of sector performance in these areas shall be developed and will include impact of current service provision on the quality of the Lake water, and on human health and poverty. The Consultant will use these to provide a description of the sector, an assessment of the development issues and challenges facing the small towns and their interrelationship with the environmental conditions in the Lake. These need to be related to an analysis of Government policies and plans for the respective sub-sectors in the Basin, provide an overview of regional programmes and an assessment of the on-going programmes and projects to establish the lessons learnt which can guide the formulation and design of future programmes. The consultations to be carried out as part of this review, should include consultations with the Project Management Units and the Multi-Stakeholder Forums (MSF) that have been established under the ongoing Lake Victoria Water and Sanitation Initiative.

3.3.3 During this exercise the Consultants shall obtain a consensus with the Client and key stakeholders on the criteria to be used to select (a) within the towns the



priority interventions and their corresponding activities and outputs (b) desired options among competing alternatives (c) more detailed parameters such as design periods, parameters for financial and economic analyses, technical design criteria etc. A key element in the criteria to be developed should be the environmental impact of existing activities in the town on the condition of Lake Victoria. This will include the contribution to waste entering the lake, the distance to the lake shore etc.

### ***3.4 Assessment of Needs in the Selected Project Towns***

3.4.1 Based on the approach followed by UN-HABITAT and the participating countries in formulating on-going phase of the Lake Victoria Water Sanitation Initiative or based on any other innovative approach that the consultant may deem more appropriate the Consultants will undertake a rapid assessment of the project towns leading to the definition of the “short-term interventions”.

3.4.2 To do so it is necessary to collect and analyse information in each town pertinent to the following:

- i. Infrastructure investment potential
- ii. Current and planned projects and investment plans
- iii. Existing governance structure at the local level
- iv. Capacity building needs for the management of water and sanitation, solid waste collection and disposal and environmental protection services in the towns
- v. Local capacity to plan and manage investment projects and to undertake environmental impact assessments
- vi. Information on the main environmental problems resulting from urbanization and insufficient service provision.

3.4.3 To assess the infrastructure investment potential stated above the consultants shall assist the service providers in preparing a detailed documentation of existing works in each of the selected towns, noting the actual (as against the theoretical) capacity of each component of works based on age and condition of physical assets. Based on this analysis the consultant shall help the service providers determine bottlenecks in service supply in the form of limiting constraints that can be addressed with the minimum of investment in physical assets and time in the form of rehabilitation and limited expansion while yielding a significant benefit to consumers.

3.4.4 The rapid assessments will draw on the experiences of previous assessments and studies carried out by the EAC-LVBC, UN-HABITAT and others. Where such rapid assessments have already been carried out, these assessments will be updated by the Consultants. The rapid assessments should be carried out with the participation of the respective Ministries responsible for water and sanitation and environmental protection in the participating countries as well as local stakeholders in the towns. To this end, local stakeholder workshops will be held in each town at which the Consultants will be required to participate and make presentations on the proposed physical interventions and capacity building activities.

### **3.5 Detailed Designs of the “Short-term Interventions”**

3.5.1 The consultant shall prepare Detailed Designs and Tender Documents for the short-term interventions component of the investment plan. Detailed designs shall conform to standard engineering practice and proposed method of contracting out works and may necessitate field topographic surveys. The detailed design shall permit the concerned utilities to begin the much needed rehabilitation and improvements with high pay off at limited costs to be implemented as soon as funds are available. This will initiate the process of continuous incremental improvements in service provision and form a basis for capacity building initiatives.

### **3.6 Long-Term Demands and Priorities**

3.6.1 Concurrently with the definition of the short-term interventions programme, based on the demographic information available for each town (or estimates using remote sensing data), on sample assessment of consumption and prices charged for services as well as interviews with representatives of consumers as in the Multi-Stakeholder Forums the consultant shall estimate the current and future demand for services in the towns.

3.6.2 The Consultant shall design appropriate means of rapid collection of information that will adequately capture the perceptions of the local population in terms of demand for services. For this purpose personnel engaged in this information collection shall have adequate knowledge of gender and social analysis and should appropriately disaggregate data from different social groups.

3.6.3 The Consultants’ engineers and economist shall collaborate in determining effective demand for priority services based on a willingness and ability to pay. Where externalities would distort demand appropriate assumptions used in derivation should be made explicit, while policy recommendations should be developed to address distortions. National policies should be consulted as to the treatment of basic per capita consumption with special regard to the poor in the demand measurement.

3.6.4 Based on an evaluation of the towns plans for growth and development of other forms of infrastructure, observed rates of growth the study shall present scenarios of growth in terms of location of demand centres, size of population and per capita demand.

3.6.5 Based on these analysis demand side measures should be developed to address the identified issues with regard to sector services, which may include economic and institutional measures to be incorporated in the study of alternatives. Inefficient use of water should be curbed by appropriate institutional measures and the freed resources redirected to more beneficial uses. The principle of the polluter pays should be implemented to create disincentives for pollution and spread of diseases by ‘free riders’. Appropriate taxation through the municipal system should be developed for the section of service provision subject to natural monopoly and externalities such as sewerage transmission and treatment, solid waste collection and treatment and storm-water drainage.

### **3.7 Development and Selection of Alternative Solutions**

3.7.1 The consultant shall identify possible alternative solutions for each of the sub-sectors (water supply, wastewater and excreta disposal, solid waste and storm water drainage and in accordance to the importance in each town), in terms of the immediate needs as well as the medium and long term requirements, and in terms of both the infrastructure and institutional capacity needs. The alternative solutions shall be considered at the level of choices concerning specific key components of the programme as well as alternative development scenarios in terms of the long term programme.

3.7.2 A development scenario may be a combination of internally consistent set of both technical and institutional solutions, including demand management measures. The Consultant shall apply the criteria developed during the sector review to select the preferred alternative courses of action using an appropriate form of multi-criteria analysis.

3.7.3 As a minimum the selected alternatives would meet the required demands, subject to the environmental quality constraints and meet the criteria of financial sustainability and economic feasibility. The phasing of development will take into consideration the advantages associated with rehabilitation, when this is feasible, optimise the design period taking into consideration the economies of scale factors, as well as any other considerations determined by local factors.

### **3.8 Formulation and Validation of Proposed Investment Plan**

3.8.1 The Consultants shall prepare a proposed investment plan for each project town in sufficient detail based on outputs from section 3.7. The plan should provide (i) a description of the Scope of Work for proposed physical interventions and capacity building programmes for each project town (ii) the base cost estimate for each identifiable component of work (iii) timing and scheduling of the work item based when it is required

3.8.2 The Consultants will assist the EAC/LVBC, and the participating Governments to organize and conduct a stakeholders' workshop to review and discuss the proposed investment plan. Inputs from the stakeholders will be incorporated by the Consultants into the finalization of the investment plan.

### **3.9 Develop Scope of Work and Cost Estimates for the Project**

3.9.1 Once the Investment Plan for the Project has been validated by the stakeholders, the Consultants will prepare the scope and cost estimates for the project. The components should include the following:

- i. The project concept and rationale, ***highlighting the regional dimensions of the project***, the role of the project in the environmental sustainability of Lake Victoria and how the project fits into the vision and strategy framework for the management of the Lake Victoria Basin.

- ii. The strategic context of the project, including a discussion of how the project fits into the respective sector strategies of the participating governments and their efforts to forge collaborative approaches to the management of the Lake Victoria Basin
- iii. A description of the main physical, demographic and environmental features of the project area, including an analysis of the socio-economic issues of the area.
- iv. The objectives and scope of the project. This should include a description of the outputs of the project and the activities needed to achieve each stated output. The narrative description should be supported by a Logical Framework in accordance with the format set out in the ADB Operations Manual. The project outputs should be disaggregated into immediate interventions, long term interventions and capacity building.
- v. A summary of the environmental impact of the project which should analyse the positive and negative impacts, proposed mitigation measures and associated costs. The environmental impact studies should also address the legal and institutional measures that are needed to improve environmental management in the Lake Victoria Basin.
- vi. An assessment of the social and gender impacts of the project, in particular, the impact of the project on the poor and women. The assessment should include the measures that should be taken to mitigate negative social impacts of the project and a programme of action to mainstream gender considerations into the planning and implementation of the project and the operation and maintenance of project facilities.
- vii. The Project cost estimates which shall be disaggregated into short-term interventions, long-term interventions and capacity building activities, and should make allowances for physical and price contingencies, in accordance with AfDB's Guidelines. **Outline designs** should be developed for the physical facilities to provide a basis for the development of Bills of Materials and cost estimates. The cost experience of the Phase 1 Project should supplement the consultant's professional experience to prepare the estimates. The cost estimates should also include the cost of project management and implementation, including consultancy services for the design and supervision of the physical works. The cost estimates should be presented in the format to be agreed with the Executing Agency after consultation with prospective funding agencies.

### 3.10 Impact Analysis

3.10.1 The Investment plan should be subjected to a detailed analysis from the (i) Institutional (ii) Financial, (iii) Economic, (iv) Social and Gender, and (v) Environmental aspects: Adjustments to the scope of work to address negative impacts or to take opportunity of positive ones should be incorporated into the project definition and costs revised to suit.

### ***3.11 Institutional Analysis***

3.11.1 The Consultants shall review and assess the institutional capacity of relevant local government departments, utility companies, and Community Based Organizations to undertake the roles they have been assigned under the project. Based on this assessment, and using the capacity building framework similar to that which has been developed under the Phase 1 of the Programme, the Consultants will (i) identify a need to assign roles and when necessary introduce new players to fill gaps in sector provision and (ii) prepare a training and capacity building programme to support the implementation of the physical interventions and as key component of the project to ensure sustainability. The consultant may adopt the capacity framework applied in the first phase in carrying out this analysis.

3.11.2 Institutional Capacity shall also include identifying and drawing the attention of decision makers to policies, municipal laws, regulations, rules and practices that may constrain adoption of new technologies and the project implementation.

### ***3.12 Financial and Economic Evaluation of the Project***

3.12.1 The Consultants will undertake a financial and economic evaluation of the Project based on established procedures. The financial evaluation should address the fiscal and financial sustainability of the beneficiary entities as well and the financial viability of the proposed interventions.

3.12.2 The economic evaluation should assess the economic viability of the project based on the Net Present Value (NPV) and Economic Rate of Return (ERR) criteria. The results of the financial and economic evaluation, including the cost tables, should be presented in accordance with the formats and tables in the AfDB Operations Manual.

3.12.3 The different evaluation parameters such as the discount rates in PV calculations, shadow prices, etc shall have been agreed with the Executing agencies during the development selection criteria

3.12.4 The resulting parameters such as the NPV and rates of return shall be subjected to a sensitivity analysis, based on the likely range of the significant input parameters.

### ***3.13 Social and Gender Analysis***

3.13.1 The Consultant shall undertake a social and gender analysis of the effect of the project across the different social and income classes and between men and women to ensure equitable distribution of benefits and that no category is excluded by virtue of gender difference.

### ***3.14 Environmental Impact Studies***

3.14.1 The Consultants will review all relevant studies and reports relating to environmental conditions in the Lake Victoria Basin and undertake Environmental Impact Studies of the project towns within the framework of the prevailing environmental legislation in the EAC countries. This work will (i) identify and quantify positive and negative environmental impacts, (ii) identify environmental risks relevant to each component during construction and operation, and (iii) identify mitigation measures. The Studies will review and build on the environmental assessments carried out under previous programmes and the Consultants will work closely with Environmental management specialists working on the various regional programmes that aim to improve environmental conditions in the Lake Victoria Basin. The studies will also include an examination of the legal and institutional issues relating to environmental management in the Lake Victoria Basin, and will draw up a programme of action under the capacity building component to address identified deficiencies in environmental management, at the local, national and regional levels.

3.14.2 The results of the EIA studies shall be presented together with those of the Social and Gender Analysis in an Environmental and Social Impact Analysis report in accordance with the format to be agreed with the executing agency after consultation with prospective funding agencies and the national environmental management agencies of the member countries. It shall include a summary for public information.

### ***3.15 Sustainability and Risks of the Project***

3.15.1 The Consultants shall undertake an assessment of the sustainability and risks of the project. The sustainability assessment should build on the monitoring protocol and sustainability check that has been developed for the first phase of LVWATSAN and should address the following elements:

- i. A quantification of the recurrent costs of the project, disaggregated per project town;
- ii. A review of existing tariff structures and an analysis of the extent to which costs, especially the recurrent costs, can be recovered from user charges;
- iii. A proposal on tariff adjustments needed to make the project sustainable
- iv. An assessment of the impact of the project on the revenues of the town organizations and the national governments in the participating countries;
- v. An analysis of the financial viability of the institutions that will be responsible for project operation and maintenance;
- vi. A review of the legal and institutional framework to ensure that activities initiated under the project will be sustained after the project is completed;
- vii. Design of the necessary institutional arrangements to ensure enhanced stakeholder participation and ownership of the project and beneficiary buy-in into the project;
- viii. An assessment of the critical risks of the project and the measures that have been structured into the project design to mitigate these risks.



### ***3.16 Prepare a Project Implementation Plan and Project Financing Plan***

3.16.1 The Consultants will develop a Project Implementation Plan (PIP) which should address the institutional arrangements for project management and supervision, procurement and contracting as well as financial management and reporting. The Consultants may consider using the management model adopted for the implementation of Phase 1 of the Lake Victoria Initiative with modification as appropriate based on the lessons learnt. The Implementation Plan should be developed in close consultation with the EAC/LVBC, UN-HABITAT and the participating countries, and include a specific focus on the participation of women and poor communities in the planning, implementation and operation of the Project. The Project Implementation Plan should encompass the following areas:

- i. A description of the institutional arrangements for the management of the project, including the proposed project management structure and a description of the roles and functions of the different entities involved, including the project stakeholders at the town level, and how women and poor communities will be involved in the project..
- ii. An Implementation Schedule showing the duration and schedule of each project component, including training and capacity building
- iii. A schedule of disbursements for each project component
- iv. A proposed procurement and contracting plan
- v. Proposals on the setting up of a project accounting and financial management system
- vi. A description of the necessary coordination arrangements to be established with other donors and programmes in the area.

3.16.2 In consultation with the EAC/LVBC, the participating countries, the Consultants should prepare a Financing Plan for the Project, showing how each component will be funded and which components should be allocated for grant financing and which for loan financing, as the case may be. The Financing Plan should include an Expenditure Schedule in tabular form showing the projected expenditure of funds by project component and financing source, over the implementation period of the project.

### ***3.17 Performance Monitoring and Evaluation and Reporting Framework***

3.17.1 The Consultants will familiarize themselves with the monitoring and evaluation system established by UN-HABITAT under Phase 1 of the LVWATSAN and will adapt this system as necessary to design the monitoring and evaluation framework for Phase II of the project. The monitoring and evaluation framework should include results indicators for tracking the progress and performance of the project, the institutional arrangements for project monitoring and evaluation and the project reporting system.

3.17.2 Arrangements should be made to collect the baseline data for the indicators not collected within the present study early during the implementation of the project.

## **4 KEY OUTPUTS OF THE ASSIGNMENT**

The key outputs of the consultancy assignment include the following:

### ***4.1 Report on Sector Context***

Documentation and analysis of the sectoral context of the project in terms of national policies and goals, institutional structures will be the result of overview activity.

### ***4.2 Priority Needs-Consensus and Specifications***

Documentation of areas requiring immediate attention in the project towns together with detailed specifications of these works in such a ways as to permit invitation of bids will be the result of activities involving identification of needs and preparation of designs.

### ***4.3 Investment Plans.***

Detailed investment plans for each town aggregated to the project at the level of the basin will be a result of processes and activities consisting of identification of long term demands, development of alternative solutions and selection of the best based on multi-criteria analysis and preparation of statement of work and cost estimates. Investment plans shall cover priority areas in each of the sectors of water and sanitation including solid waste and storm-water drainage and will consist of physical solution with appropriate balance of demand management and supply augmentation as well as institutional and community capacity development.

### ***4.4 Institutional, Financial, Economic, Environmental, Social and Gender Impacts Appraisal***

This output shall consist of a detailed appraisal of the impacts of the project on the institutional, financial, economical, environmental, social and gender spheres. Through an iterative purpose any negative aspects would lead to revision of related aspects of the investment plan.

### ***4.5 Financing and Implementation Plan***

The implementation and financing plan will be a detailed presentation of the execution arrangements of the investment plan in terms of institutional responsibilities and suggested financing terms taking into consideration the nature of each component of work. It will include the proposed implementation schedule.

### ***4.6 Monitoring and Evaluation Reporting Framework***

The last output will be framework for monitoring and evaluation of the programme proposed including requirements for reporting to stakeholders. It shall be results oriented and include available baseline information as well as definition of means for data collection of data during implementation, which may include additional baseline information just prior to commencement.

## 5 TIME SCHEDULE AND REPORTING REQUIREMENTS

The consultancy assignment will be effective for a period of 30 weeks. The Consultant will be required to produce (i) an Inception Report within three weeks, (ii) Progress Reports, (iii) Interim Technical Reports, and (iv) Final Report in accordance with the schedule below. The draft Final Report should present the complete results of the assignment, consolidating the interim reports in the format acceptable to the African Development Bank. The Final Report will incorporate comments of the Client, and relevant stakeholders. A tentative time schedule is as follows:

### Schedule for Contracting Process

Invitation for proposals	18 <sup>th</sup> September 2008
Deadline for submission of proposals	21 <sup>st</sup> November 2008
Evaluation of proposals	28 <sup>th</sup> November
Contract negotiations	1 <sup>st</sup> – 5 <sup>th</sup> December
Award of contract	08 <sup>th</sup> December, 2008
Mobilisation	December 2008- January 2009
Start of Consultancy	23 <sup>rd</sup> January 2009

### Reporting Time Schedule

Inception Report	20 <sup>th</sup> February 2009
Progress Reports	20 <sup>th</sup> March and every 20 <sup>th</sup> of following months
Interim Report on Proposed Short-Term Interventions	20 <sup>th</sup> March, 2009
Interim Report on Detailed Design of Short-Term Interventions	20 <sup>th</sup> April 2009
Draft Long-term Investment Plans for Validation	4 <sup>th</sup> June 2009
Long-Term Investment Plans	6 <sup>th</sup> July 2009
Draft Final Report	6 <sup>th</sup> August 2009
Final Report	21 <sup>st</sup> August 2009

A General Implementation Schedule is provided in Annex 2.

## 6 IMPLEMENTATION ARRANGEMENTS

The East African Community (EAC) through the Lake Victoria Basin Commission (LVBC) will be the Executing Agency responsible for the implementation of the consultancy assignment. The EAC-LVBC will be assisted by UN-HABITAT and will operate under the existing **Project Management Units (PMU)** in Kenya, Tanzania and Uganda – and soon to be established PMU's in Burundi and Rwanda – to guide the work of the Consultants, to co-ordinate the inputs of all stakeholders and to provide overall supervision for the Project Formulation Study. The responsibilities of the EAC-LVBC are further detailed below in Section 7. The PMU's will assume overall responsibility for the organization of the stakeholder workshops.

The assignment will require an estimated input of 62 person-months consulting services over a 30-week period.

The Consultant's team shall comprise the following experts (man months given in brackets are only indicative and can be adjusted by the bidder):

- i. A **Team Leader** (8 man-months) who should be an experienced project manager with proven expertise in the water, sanitation and environmental management sectors, and related training and capacity building activities;
- ii. **Civil Engineers** (5 x 5 man-months) to cover each participating country who should be water and sanitation engineers with experience in design, cost estimates, and technical assessments for water, sanitation, solid waste, drainage, environmental management projects. Each should have the appropriate language experience for the proposed area of geographical assignment;
- iii. An **Electro-Mechanical Engineer** (2 man-months) with experience in outdoor equipment in the tropical environments;
- iv. A **Community Development and Gender Specialist** (3 man-months, supported by national consultants) who should have extensive experience in community-based approaches to the formulation and implementation of water, sanitation and environmental management programmes, gender mainstreaming issues, local cultural practices and customs, as well as to the assessment of training and capacity building needs for community based organizations and local NGOs;
- v. An **Environmental Assessment specialist** (3 man-months, supported by national consultants) who should be well versed in environmental impact assessments and the specific environmental issues of the Lake Victoria Region;
- vi. **Financial Analyst** (3 man-months) with background knowledge of the institutional environment of secondary towns in East Africa, and recent reform experiences for this sub-sector;
- vii. An **Economist** (4 man-months) who should have extensive experience in financial project appraisal techniques, including the analytical tools used by the AfDB in carrying out the financial and economic appraisal of investment projects, to assess the financial sustainability of the proposed investments.

viii. National and **support** staff, as deemed appropriate by the Consultant.

## 7 TECHNICAL PROPOSAL

The technical proposal shall follow the format as prescribed in Appendix 1 to the Letter of Invitation.

## 8 FINANCIAL PROPOSAL

The cost estimate for this assignment shall be based on the Terms of Reference and follow the prescribed format as given in *Appendix 2 of the Letter of Invitation – Formats for Financial Proposals*. The cost estimate shall be as detailed as possible and shall provide a breakdown of each assignment into activities to be undertaken in time, in a given order and provide the duration and cost of each. The different cost categories are the following:

- i. Proposed (International) Consultant's staff, time spent at office and field, rates in person/weeks;
- ii. National professional and support staff, (same);
- iii. Direct costs such as travel (international, local by air and road)
- iv. Per diem
- v. Cost of physical inputs, equipment, office supplies, communication, etc
- vi. Other expenditures,
- vii. Physical and price contingencies.

## 9 COUNTERPART SUPPORT

The EAC-LVBC in collaboration with the countries and UN-HABITAT will facilitate the work of the Consultant in the project towns by ensuring that **focal points** are designated *in each country* to work with the Consultant's team during field missions. The EAC-LVBC and UN-HABITAT will also make available to the Consultant all previous studies, reports, assessments and other relevant background documents for the assignment that have been undertaken either by the EAC-LVBC or UN-HABITAT. The EAC-LVBC will assist the Consultants in accessing other reference documents. In this regard, a list of reference documents is provided at Annex 3, but this list is not exhaustive.

The EAC-LVBC and UN-HABITAT will also provide the Consultants all publications, tool kits, assessment reports, maps, information, technical designs and cost data that have so far been generated from Phase 1 of the Lake Victoria Water and Sanitation Initiative.

## ANNEX 1 – IMPLEMENTATION SCHEDULE

[illegible]



## **ANNEX 2 – LIST OF REFERENCE DOCUMENTS**

1. EAC (1999); **The Treaty for the Establishment of the East African Community,**
2. East African Community (2003), **Protocol on Sustainable Development of the Lake Victoria Basin.**
3. EAC (2004); **The Vision and Strategy Framework for the Management and Development of the Lake Victoria Basin**
4. UN-HABITAT, 2006. **Lake Victoria Region Water and Sanitation Initiative - Strategic Environmental Assessment for 15 towns in the Lake Victoria Basin in Kenya, Uganda and Tanzania,** Unpublished.
5. UN-HABITAT, 2004. **Lake Victoria Region Water and Sanitation Initiative - Rapid appraisal of water and Sanitation in 30 Selected Urban Centers,** Unpublished (Blue Book).
6. UN-HABITAT, 2005. **Lake Victoria Region Water and Sanitation Initiative – Consultant reports on immediate and long-term infrastructure interventions in water and sanitation, solid waste management and drainage for selected secondary towns around Lake Victoria,** Unpublished.
7. UN-HABITAT, 2006. **Lake Victoria Region Water and Sanitation Initiative – Report of the Capacity Building Workshop,** held at the UN-HABITAT Headquarters in Gigiri, Nairobi 16-18 October 2006.
8. UN-HABITAT, 2007. **Lake Victoria Region Water and Sanitation Initiative – Programme Brochure** (Updated), UN-HABITAT.
9. UN-HABITAT, 2006: **Lake Victoria Region Water and Sanitation Initiative – Analysis of the Financial Viability and Economic Justification of the programme,** Unpublished.
10. UN-HABITAT, 2006. **Water and Sanitation in the World's Cities 2006: Meeting Development Goals in Small Urban Centres,** Earthscan Publications Ltd.
11. UN-HABITAT, 2004, **Environmental Assessment Requirements: A Guide for UNHABITAT Supported Activities,** UN-HABITAT.
12. UN-HABITAT, 2001. **UN-HABITAT Policy on Mainstreaming Gender Equality and Women's Rights,** 2001.
13. UN-HABITAT, 2005. **A Guidebook for Urban Catchment Management**
14. UN-HABITAT, 2008. **A Step-by-step Guide for the Establishment of a Multi-Stakeholder Forum.**

15. UN-HABITAT, 2005. **Cities Development Strategies for Improved Urban Environment and Poverty Reduction in the Lake Victoria Region** : Kampala, Kisumu and Musoma.
16. UN-HABITAT, 2008. **Promoting Biodiversity in and around the Lake Victoria Basin**, (Lake Victoria City Development Strategies' Project, Urban Environment Section).
17. Republique de Burundi - Rapport Final sur l' Atelier de Formation sur la Gestion Integree des Ressources en Eau au Burundi (Octobre 2007)
18. Republique de Rwanda – Ministry of Lands Environment Forests Water and Natural Resources – **Sectoral Policy on Water and Sanitation** (October 2004).
19. World Bank, 1999. **Nile Basin Initiative**, World Bank Group.
20. Eric O. Odada, Daniel O. Olago, Kassim Kulindwa, Micheni Ntiba and Shem Wandiga, **Mitigation of Environmental Problems in Lake Victoria, East Africa: Causal Chain and Policy Options Analyses**, Ambio Vol. 33 No. 1–2, Feb. 2004, Royal Swedish Academy of Sciences 2004.  
<http://www.ambio.kva.se>
21. Cohen, A.S., Kaufman, L. and Ogutu-Ohwayo, R. 1996. **Anthropogenic threats, impacts and conservation strategies in the African Great Lakes: A review**. In: *The Limnology, Climatology and Paleoclimatology of the East African Lakes*. Johnson, T.C. and Odada, E. (eds). Gordon and Breach, Toronto, pp. 575-624.
22. World Bank 1996. **Kenya, Tanzania and Uganda: Lake Victoria Environmental Management Project**. GEF Documentation Report No. 15541 – ARF.
23. Shepherd, K., Walsh, M., Mugo, F., Ong, C., Hansen, T.S., Swallow, B., Awiti, A., Hai, M., Nyantika, D., Ombao, D., Grunder, M., Mbote, F. and Mungai, D. 2000. **Improved Land Management in the Lake Victoria Basin: Linking Land and Lake, Research and Extension, Catchment and Lake Basin**. Final Technical Report,
24. Verschuren, D., Johnson, T.C., Kling, H.J., Edgington, D.N. Leavitt, P.R., Brown, E.T., Talbot, M.R. and Hecky, R.E. 2002. **History and timing of human impact on Lake Victoria, East Africa**. *Proc. Roy. Soc. London B*. 269, 289-294.
25. Hecky, R.E. 1993. **The eutrophication of Lake Victoria**. *Proc. Int. Ass. Theor. Appl. Limnol.* 25, 39 –48.
26. Ntiba, M.J., Kudoja, W.M. and Mukasa, C.T. 2001. **Management issues in the Lake Victoria watershed**. *Lakes Reservoirs: Res. Mgmt* 6, 211-216.

27. Karanja, D.M.S. 2002. **Health and diseases: a case study of Lake Victoria basin.** In: *The Lake Victoria Training Project, Annual Report 2002*. Pan-African START Secretariat, Nairobi.
28. Scheren, P.A.G.M., Zanting, H.A. and Lemmens, A.M.C. 2000. **Estimation of water pollution sources in Lake Victoria, East Africa: Application and elaboration of the rapid assessment methodology.** *J. Environ. Mgmt* 58, 235-248.
29. Mailu, A.M. 2001. **Preliminary assessment of the social, economic and environmental impacts of water hyacinth in the Lake Victoria basin and the status of control.** In: *Biological and Integrated Control of Water Hyacinth, Eichornia crassipes*. Julien, M.H. and Hill, M.P. (eds). *ACIAR Proc. 102*, 130-139.
30. Conway, D. 2002. **Extreme rainfall events and lake level changes in East Africa: recent events and historical precedents.** In: *The East African Great Lakes: Limnology, Palaeolimnology and Biodiversity*. Odada, E.O. and Olago, D.O. (eds). *Advances in Global Change Research*, Kluwer Academic Publishers, pp. 63-92.
31. Kairu, J.K. 2001. **Wetland-use and impact on Lake Victoria, Kenya region.** *Lakes Reservoirs: Res. Mgmt* 6, 117-125.
32. Lowe-McConnell, R. 1994. **The changing ecosystem of Lake Victoria, East Africa.** *Freshwater Forum*, 4, 76-89.
33. Marielle J. Canter, Stephen N. Ndegwa, **Environmental Scarcity and Conflict: A Contrary Case from Lake Victoria** *Global Environmental Politics*, August 2002, Vol. 2, No. 3, Pages 40-62
34. Joseph L. Awange and Obiero Ong'ang'a, 2006, **Lake Victoria: Ecology, Resources, Environment**, Springer Berlin Heidelberg Publishers.
35. Alex Gisagara, 2006. **Implications of the dropping Lake Victoria Water Levels on Water Supply Service Provision**, Paper presented at a Multi-stakeholder Workshop on the Decline of Lake Victoria Water Levels, 15 August 2006.
36. Raymond Mngodo, 2006. **Current Status of Lake Victoria**, Paper presented at a Multi-stakeholder Workshop on the Decline of Lake Victoria Water Levels, 15 August 2006.

Relevant websites for **Water Sector Reforms**:

Kenya: [www.water.go.ke/docs/](http://www.water.go.ke/docs/)  
Tanzania: [www.tanzania.go.tz/water/](http://www.tanzania.go.tz/water/)  
Uganda: [www.dwd.co.ug/](http://www.dwd.co.ug/)  
Rwanda: [www.gov.rw/government/](http://www.gov.rw/government/)  
Burundi: no website