



# LAKE VICTORIA

WATER AND SANITATION INITIATIVE

UN  HABITAT



Overview of the Pro-poor Approaches for Improved Access to Affordable Water and Sanitation Initiative of UN-HABITAT.

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## ACKNOWLEDGEMENTS

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## FOREWORD



With only 5 years to go to achieve the Millennium Development Goals, access to safe drinking water and basic sanitation in the countries of sub-Saharan Africa continue to lag behind the rest of the world. At a time when water and sanitation services are taken for granted in many developed and middle income developing countries, there are over 300 million Africans who lack access to safe drinking water and over 560 million who do not use an improved sanitation facility.

To the millions who lack these basic services, it is not the numbers that count, but the daily toll of disease, lost time and low productivity and the harsh reality of having to spend hours every day, trying to find a few litres of water, which is often unsafe and typically located several kilometers away from their homes. In this situation, the challenge of escaping from poverty is formidable, and, for most, insurmountable.

Achieving the Millennium Development Goals for water and sanitation in sub-Saharan Africa requires action on many fronts. There is a need to allocate more resources to the sector, which continues to be underfunded. Of equal importance, however, is the need to use resources more efficiently and this requires a more effective legal and institutional framework to plan and implement investments and to manage the delivery of services, especially for the poor. There is also a need to adopt more integrated approaches which reflect the different dimensions of the water and sanitation sector, including gender, community participation, environmental sustainability, institutional development, and water resources management.

To expedite progress in meeting the MDGs in sub-Saharan Africa, there is a need for good models which can be replicated and scaled up. The Lake Victoria Water and Sanitation Initiative (LVWATSAN), which was launched in 2004, has now been established as an important regional initiative. The programme was conceptualized by UN-HABITAT as a response to the rapid growth of many small towns bordering Lake Victoria, the increasing pressure on water and sanitation services and the unprecedented deterioration in the ecosystem of Africa's greatest Lake.

The first phase of the Lake Victoria Region Water and Sanitation Initiative is now nearing completion and plans are now being made to scale up the programme to another 15 towns in the 5 East African Countries. The programme has already demonstrated its potential to



achieve the MDGs for water and sanitation in secondary towns and contribute to the environmental sustainability of Lake Victoria.

This publication is meant to document the essential features of the Lake Victoria programme Model, including the short term results, the impact, the lessons learnt and some of the best practices which have resulted from the implementation of this first phase of the Programme.

At UN-HABITAT, we are working closely with the East African Community and the African Development Bank and others to bring the initiative to other towns in neighbouring Rwanda and Burundi. It is our duty to help improve the quality of life of people living in poverty in the towns within the Lake Victoria basin and to ensure the best possible conservation of this greatest of lakes.



Anna Tibaijuka  
Under-Secretary-General and  
Executive Director  
UN-HABITAT

## BACKGROUND

The rapidly growing urban centres in the Lake Victoria basin are playing an increasingly important role in the economic development of the region. But most of these towns are experiencing unplanned, spontaneous growth. The run-down and often non-existent basic infrastructure and services in most of them poses a major threat to their sustainability.

The poor people of these urban and peri-urban areas, most of whom remain outside the reach of municipal services, are the most affected. Official statistics are often misleading and do not reveal the true extent of the problem. Socio-economic surveys carried out by UN-HABITAT in over 20 secondary towns around the Lake reveal an alarming situation, with access to water and sanitation typically less than 30%. The situation is compounded by unplanned urban development and intense pressure on basic infrastructure which have had a significant negative impact on living conditions, the natural environment, and the fragile ecosystem of the Lake.

These secondary towns are yet to reap the full benefits of upstream reforms taking place in the water and sanitation sector in the three East African countries. The local authorities and the service providers, overwhelmed by the rapid and unplanned development of these towns, lack the capacity or resources to address the widening demand-supply gap. The Lake Victoria Region Water and Sanitation Initiative, spearheaded by UN-HABITAT, represents a coordinated effort on the part of the international community, regional organizations, as well as national and local authorities, to address the deteriorating living conditions in the Lake Basin and to improve the prospects of these towns in achieving the Millennium Development Goals for water and sanitation.

## A MODEL FOR ACHIEVING MDG TARGETS AND FOSTERING REGIONAL COOPERATION

The rapidly growing smaller urban centres in the Lake region are contributing increasingly to the economic development of the region and to regional cooperation. Their sustainability is critical to development of the region. Demonstrating an integrated approach to the provision of basic services in these towns and enhancing capacity at local levels for the towns to manage themselves will provide a model for national authorities and donors (including international financing institutions) to replicate in other towns in the region. The initiative will also foster regional cooperation by sharing of experiences and exchange of expertise among the three East African countries.

## LINKAGES WITH OTHER ON-GOING INITIATIVES

As the Lake Victoria Water and Sanitation Initiative moves into a second phase, the linkages with other programmes will assume even greater importance. Lake Victoria is regarded as the most important trans-boundary natural resource in Africa and the efforts to enhance its environmental sustainability in a region of widespread poverty, must, of necessity, be regional in scope. The Initiative is working closely with two ongoing programmes coordinated by the East African Community Secretariat, the Lake Victoria Environmental Management Programme and the Nile Basin Initiative. It has also established collaborative linkages with the New Partnership for Africa's Development (NEPAD) Water Agenda for the region facilitated by the African Development Bank, and other regional initiatives.

## OBJECTIVES OF THE LAKE VICTORIA WATER AND SANITATION INITIATIVE

The objective of the Lake Victoria Water and Sanitation Initiative is to make a substantial and rapid contribution to the achievement of internationally-agreed water and sanitation goals in secondary towns in the Lake Victoria region in East Africa. The programme has so far targeted 10 towns and is now being scaled up to another 15 towns. The expanded programme in 25 urban settlements will benefit an estimated 1.2 million people in Kenya, Tanzania and Uganda. This Model-setting initiative seeks to demonstrate the balance between innovative approaches to investment in physical infrastructure and investments in capacity-building for sustainability. The Initiative has set clear quantitative targets for the number of persons to be provided with improved access to water and sanitation services within an agreed timeframe.

With a clear pro-poor focus, the Lake Victoria Water and Sanitation Initiative is designed to generate desirable outcomes that will have a lasting effect on the poor. These include improved access to water and sanitation services in the project areas, functional and gender-focused approaches for sustainable management and performance monitoring of the rehabilitated systems, institutionalized capacity

### SPECIFIC OBJECTIVES

- Promote pro-poor water and sanitation investments in the secondary urban centres in the Lake Victoria Region
- Support development of institutional and human resource capacities at local and regional levels for the sustainable delivery of improved water and sanitation services
- Facilitate realization of upstream water sector reforms at the local level in the participating urban centres
- Reduce the environmental impact of urbanization in the Lake Victoria Basin

building programmes to regularly upgrade the capacity of stakeholders, and a contribution to the reduction in pollutant loads entering Lake Victoria. Implemented in tandem with ongoing sector reforms in the region, these interventions will lead to improved health and productivity for populations in the secondary towns participating in the programme.



Unprotected water source, Bukoba Tanzania. Photo © UN-HABITAT



Protected water source, Nyamwala spring Muleba Tanzania. Photo © UN-HABITAT

## THE FIRST 10 TOWNS

The first phase of the Programme is targeting 10 towns in Kenya, Tanzania and Uganda, as follows:

### KENYA

- Kisii
- Homa Bay
- Bondo



Artisan training women, Kyotera Uganda. Photo © UN-HABITAT

### UGANDA

- Kyotera
- Nyendo/Masaka
- Mutukula
- Bugembe



Women skills development in rain water harvesting tanks, Kyotera Uganda. Photo © UN-HABITAT

### TANZANIA

- Bukoba
- Muleba
- Bunda
- Mutukula

Based on socio-economic surveys carried out in 2007, the Baseline Conditions were established as follows:

- Total population – 525,170
- 399,129 persons (76% of the population) lacking access to sustainable supplies of safe drinking water
- 380,150 persons (72%) lacking access to improved sanitation
- Less than 5% of the garbage is being collected by the local authorities
- Limited institutional and human resources capacity to manage water and sanitation programmes. Service providers are covering less than 60% of their costs
- Income levels are less than 50% of national averages
- Large numbers of orphan-headed and child headed households because of the HIV/AIDS pandemic
- Limited engagement of the communities in water and sanitation programmes



On site demonstration rain water harvesting tanks skills, Kyotera Uganda. Photo © UN-HABITAT



## OVERVIEW OF KEY INTERVENTIONS



Kisumu market, Kenya. Photo © UN-HABITAT

In order to achieve the objectives of the Programme, LVWATSAN has been designed to deliver an integrated package of interventions comprising 8 major components, as follows:

- Rehabilitation and extension of physical infrastructure
- Supply and delivery of solid waste management equipment
- Extending access to basic sanitation through micro-credit facilities
- Providing water and sanitation to vulnerable groups
- Improving water supply, sanitation and hygiene promotion in schools
- Capacity development for local authorities, service providers and CBOs
- Skills training for women and youth
- Promoting gender parity

## REHABILITATION AND EXTENSION OF PHYSICAL INFRASTRUCTURE

The infrastructure works completed so far include a range of physical interventions including: drilling of boreholes to increase water production, construction of tanks, the installation of new pumps to modernize and expand old and inefficient pumping stations; rehabilitation of spring intakes, development of new spring sources, rehabilitation of treatment plants, the extension of water distribution networks, the construction of water kiosks and the construction of sanitation facilities in institutions, public markets and in selected slum areas of the towns.

The completed works have resulted in an increase in water production and treatment of over 15,000 cubic meters per day (enough water for over 300,000 persons), 2,000 cubic meters of storage, over 40 kilometers of new pipelines and 60 water kiosks to provide water for the poor. In addition, the sewerage system in two of the target towns (Kisii in Kenya) have been rehabilitated. Additional infrastructure works are in progress, including the construction of a complete water system for town of Mutukula on the border between Uganda and Tanzania, a new treatment plant for the Homa Bay Water System in Kenya, as well as increases in storage and network extensions in the towns of Kisii, Homa Bay and Bondo.



Rehabilitated water in take Bukoba, Tanzania. Photo © UN-HABITAT



## SOLID WASTE MANAGEMENT EQUIPMENT

Surveys carried out by UN-HABITAT in the secondary towns around Lake Victoria have revealed that the local authorities do not have the necessary equipment to cope with the increasing volumes of waste. With less than 5% of the garbage being collected, most of the waste is being discharged into the environment thus creating sanitation and public health problems and to add to the pollution of Lake Victoria. The project has designed a special solid waste management system for small towns, based on low-cost tractor-trailers and skip containers. The equipment has been delivered to 7 towns, and has had a major impact in improving garbage collection and disposal and reducing the pollution of the Lake.

## EXTENDING ACCESS TO BASIC SANITATION THROUGH MICRO-CREDIT FACILITIES

LVWATSAN is piloting an innovative scheme to promote access to sanitation for women-headed households. The scheme is based on a community-driven, self-help approach under which the beneficiaries are organized into “solidarity groups” and provided with training and capacity building to mobilize their own savings and to access a dedicated sanitation micro-credit facility established (with seed funding from the programme) at a Micro-Finance Organization. The capacity building element includes awareness raising of alternative sanitation technologies, their appropriateness for given conditions and cost.



Hand over of solid waste management equipment, Homa Bay Kenya. Photo © UN-HABITAT



Micro-credit for sanitation completed facility, Bukoba Tanzania. Photo © UN-HABITAT

**Box 1      Micro-credit for Sanitation**

The slow progress in meeting the MDGs for sanitation continues to be a matter of serious international concern. In Africa, for example, the latest information provided by the JMP monitoring programme indicates that it will take another 30 years for Africa to attain the sanitation MDGs. Given the severe impact that poor sanitation has on public health and productivity, this ongoing problem calls for a major international effort to reverse the current trends.

As governments and the international community work to confront this challenge, the lack of viable models for expanding sanitation coverage in urban areas, poses a serious constraint, especially in low income areas where conventional sewerage systems are not feasible because of high cost. In such areas, household sanitation usually offer the only viable option but most households lack access to funding to be able to provide improved facilities.

Under the Lake Victoria Region Water and Sanitation Initiative, UN-HABITAT has launched an innovative programme aimed at providing revolving funds through local micro-finance institutions to enable poor and mostly women-headed households to access funds to improve their household sanitation. The programme includes a substantial social marketing component, as well as the construction of demonstration toilets, community mobilization and the training and empowerment of community based organizations. A key feature of the programme is the establishment of solidarity groups at the community level as well as “community banks” which provide a facility for households to accumulate savings in order to meet the requirements to access loans from the revolving fund.

The potential of the sanitation micro-credit programme to address the sanitation needs of the poor in peri-urban areas has already been demonstrated. With the programme still within the first year of implementation, about 1,000 families have already been able to construct improved sanitation facilities. The pilot project is expected to benefit at least 54,000 persons at an investment cost of about US\$25 per person. This cost will reduce in time, since it is based on the first cycle of the revolving fund.

The sanitation micro-credit programme clearly has good potential as a model to provide household sanitation to poor families. The programme serves as a catalyst to mobilize household savings for sanitation development and also helps to promote partnerships between local authorities, community-based organizations and private financial institutions.



## PROVIDING WATER AND SANITATION TO VULNERABLE GROUPS

The HIV/AIDS pandemic, disabilities, albinism, extreme poverty and the lack of social safety nets have all contributed to a high number of vulnerable groups around Lake Victoria. The Lake Victoria Initiative is implementing a project to improve access for water and sanitation for Orphan and Child Headed Households as well as other vulnerable groups, such as children suffering from albinism and the disabled. The project is seeking to demonstrate that on-site sanitation and Rain Water Harvesting (RWH) schemes are viable and sustainable alternatives for marginalized and disadvantaged groups. The project uses labour-intensive approaches and includes a skills training component targeting women and youths. The project has been implemented in 7 towns and has already benefited over 8,000 persons.

## IMPROVING WATER SUPPLY, SANITATION AND HYGIENE PROMOTION IN SCHOOLS

The water and sanitation situation in schools has long been a cause of serious concern for Governments and local authorities in the towns around Lake Victoria. Poor sanitation not only affects the health of the students but is one of the factors causing low enrollment and high drop-out rates, especially among girls. It is against this background that The Initiative has been targeting schools for water and sanitation improvements and hygiene promotion. The water, sanitation and hygiene (WASH) programme for schools involves the provision of drinking water, mainly through rainwater harvesting, the construction of improved sanitation, hand washing facilities and hygiene awareness to promote behavioral change. Over 60 schools have so far been targeted with over 30,000 students already benefiting from access to drinking water and/or basic sanitation.



Mugeza Secondary School completed rain water harvesting tank.  
Photo © UN-HABITAT



Completed sanitation facility, Kyotera Uganda.  
Photo © UN-HABITAT

## CAPACITY DEVELOPMENT FOR SERVICE PROVIDERS, LOCAL AUTHORITIES AND CBOS

Ensuring the sustainability of the investments in water and sanitation infrastructure and building a long term capacity to manage service delivery and economic development initiatives are key objectives of the Initiative. To achieve these objectives, capacity building and training is directed at:

### WATER UTILITIES

In the 5 key areas of performance improvement planning, water demand management, billing and revenue collection, block mapping and customer care.

### LOCAL MUNICIPALITIES

In the areas of pro-poor governance, the management of solid waste management services and the planning and implementation of sanitation programmes;

### COMMUNITY-BASED ORGANIZATIONS

In managing micro-credit schemes for sanitation and watsan service delivery facilities (water kiosks and public sanitation facilities)

### MULTI-STAKEHOLDER FORUMS

In enhancing the role community-based groups in the water and sanitation sector and local development initiatives.

### LOCAL NGOS

In setting up and managing water and sanitation programmes for vulnerable groups

A fast track capacity building programme for 4 water utilities has been completed and is now in the follow up stage. The programme has been extended to another 2 water utilities and training activities are ongoing. Seven local municipalities have received training in the management of solid waste management systems, an activity which is ongoing. Over 25 community based organizations have received training in the management of sanitation micro-credit schemes. The ongoing training and capacity building activities will shortly receive a significant boost, with the launch in late 2010 of a comprehensive capacity building programme in 4 thematic areas: water utility management, catchment management, pro-poor governance, local economic development and gender and vulnerable groups.



Capacity Building for Water Utilities - Block mapping, Bondo Kisumu. Photo © UN-HABITAT

## Box 2 Capacity Building in Utility Management in Lake Victoria

Enhancing the capacity of water service providers is crucial for the improvement of service delivery in urban areas. Capacity enhancement is a long term process that requires a focus on business planning, performance management, human resources development as well as the introduction and continuous improvement of more efficient systems and procedures to address key performance indicators such as unaccounted-for-water, working ratio (revenues/expenditures), metering efficiency and staff productivity.

The Initiative has developed an innovative approach to building the institutional capacity of water utilities in Africa, based on the principle of south-south cooperation and peer-to-peer exchange mechanisms among utilities. The capacity enhancement programme focuses on institutionalizing a strategic and performance management approach to utility planning and operations through the preparation and implementation of a performance improvement plan linked to a programme of training and capacity building to improve human resources capacity and address key performance indicators and identified system deficiencies.

The capacity building programme in utility management has already benefited 8 urban water utilities and is being progressively expanded in scope. Although the programme is still in progress, the impact, in terms of an improvement in utility performance has already been significant, as shown in Table below for 4 utilities. It is noteworthy that all of the utilities are approaching full recovery of operational costs (working ratio of 1.0), with revenues increasing by an average of nearly 60%.

Water Utility	Unaccounted-for-Water (%)		Working Ratio (revenues/expenditures)		% increase in revenues
	Baseline	Current	Baseline	Current	
Gusii Water Company (Kenya)	61.6	40.7	2.2	1.06	65
South Nyanza Water Company (Kenya)	65.0	45.0	2.58	1.35	48
Bukoba Urban Water and Sewerage Authority (Tanzania)	58.9	51.2	1.25	1.05	94

## SKILLS TRAINING FOR WOMEN AND YOUTH

The high incidence of poverty in the Lake Victoria Secondary towns calls for specific poverty reduction measures to be incorporated into investment programmes around the Lake. The Initiative is seeking to address poverty in several ways, including promoting higher standards of public health and economic productivity and improving knowledge and skills at the local level. Skills training for women and youth is built in to all community-based projects, including the sanitation micro-credit scheme and the project to provide water and sanitation to vulnerable groups. The project has provided skills training for over 5,000 persons, and is helping to create a reservoir of skills in construction, micro-credit and the mobilization of community savings.



Skills Training for Women - Construction of Ferro-cement Storage.  
Photo © UN-HABITAT

## PROMOTING GENDER PARITY

As a cross-cutting issue, promoting gender parity has been integrated into all components of The Initiative through practical and implementable actions. The action plan to address gender issues was developed on the basis of a rapid gender assessment that was

carried out for 7 towns and which resulted in a set of detailed recommendations on promoting gender parity in the Lake Victoria towns.



New Sanitation Facilities for Girls - Bukoba. Photo © UN-HABITAT

A 7-point action plan was developed to promote gender parity:

- Ensure that women achieved at least a 30% representation in the Multi-Stakeholder Forums
- Prepare and implement specific project components targeting women-headed households (such as the sanitation micro-credit and the project for vulnerable groups)
- Include a component on gender and vulnerable groups in the capacity building programme.
- Provide skills training for women and women's groups
- Provide training in gender mainstreaming for key decision-makers
- Ensure that the design of facilities (such as sanitation facilities in schools and public institutions) catered to the needs of women.
- Ensure that women's groups receive special consideration in selecting operators for water and sanitation facilities





Official Launch of Muleba Water Project by His Excellency President Jakaya Kikwete of Tanzania. Photo © UN-HABITAT

## PARTNERSHIPS

In addition to the capacity building activities, sustainability and replicability of the Programme is further strengthened by ensuring that field experience is fed into normative tools and guidelines to facilitate replication, and that strategic partnerships are developed with national level stakeholders, development banks and other multi-lateral and

bilateral agencies to scale up innovative and successful approaches supported by the programme. Implementation partnerships have now been established with national and local governments, development partners, the East African Community Secretariat, the Lake Victoria Basin Commission, private companies, as well as international and local NGOs, water utilities and training institutions.

**IMPLEMENTATION PARTNERSHIPS ESTABLISHED BY THE LAKE VICTORIA WATER AND SANITATION INITIATIVE (LVWATSAN)**

- National governments - Kenya, Tanzania, Uganda (Phase I)
- Rwanda and Burundi (Phase II)
- African Development Bank
- European Investment Bank
- Cadbury (Kenya)
- Coca Cola
- Google.Org
- Secretariat of the East African Community
- Lake Victoria Basin Commission
- Lake Victoria Environmental Management Programme
- Nile Basin Initiative
- National Water and Sewerage Corporation - Uganda
- Lake Victoria South Water Services Board - Kenya
- SNV Netherlands
- UNESCO-IHE
- Federation of Canadian Municipalities
- Gender and Water Alliance
- Netwas
- Town Councils – Kisii, Homa Bay, Bondo, Kyotera, Masaka, Mutukula, Bukoba, Muleba, Bunda
- Over 15 Non-Governmental Organizations



Protected water source, Nyamwala Tanzania. Photo © UN-HABITAT



Water kiosk Shauriyako, Homabay Kenya. Photo © UN-HABITAT

## PROGRAMME DESIGN, IMPLEMENTATION AND MONITORING STRUCTURE

### PROGRAMME STEERING COMMITTEE

At the regional level, policy guidance for the Initiative is provided jointly by the Ministers responsible for water in the partner countries, the Secretariat of the East African Community (EAC), whose technical committee has fully endorsed and supports the programme, and UN-HABITAT.

### PROJECT MANAGEMENT UNITS

In each country, three levels of programme management have been established under a framework for the management, implementation and co-ordination of the Lake Victoria Region Water and Sanitation Initiative (LVWATSAN) as established in Memorandum of Understanding (MOUs) signed between UN-HABITAT and the Governments of Kenya, Tanzania and Uganda, respectively, in June 2006. The MOUs provide for the establishment of Project Management Units (PMUs) responsible for overall coordination and management of projects at regional or district level.

### PROJECT IMPLEMENTATION UNITS

At the town level, project implementation is coordinated by Project Implementation Units (PIUs), chaired by the respective Town Clerks. The primary role of the PIUs is to oversee and monitor the day to day management of project activities by the Implementing Partners and to review and approve requests for payment.

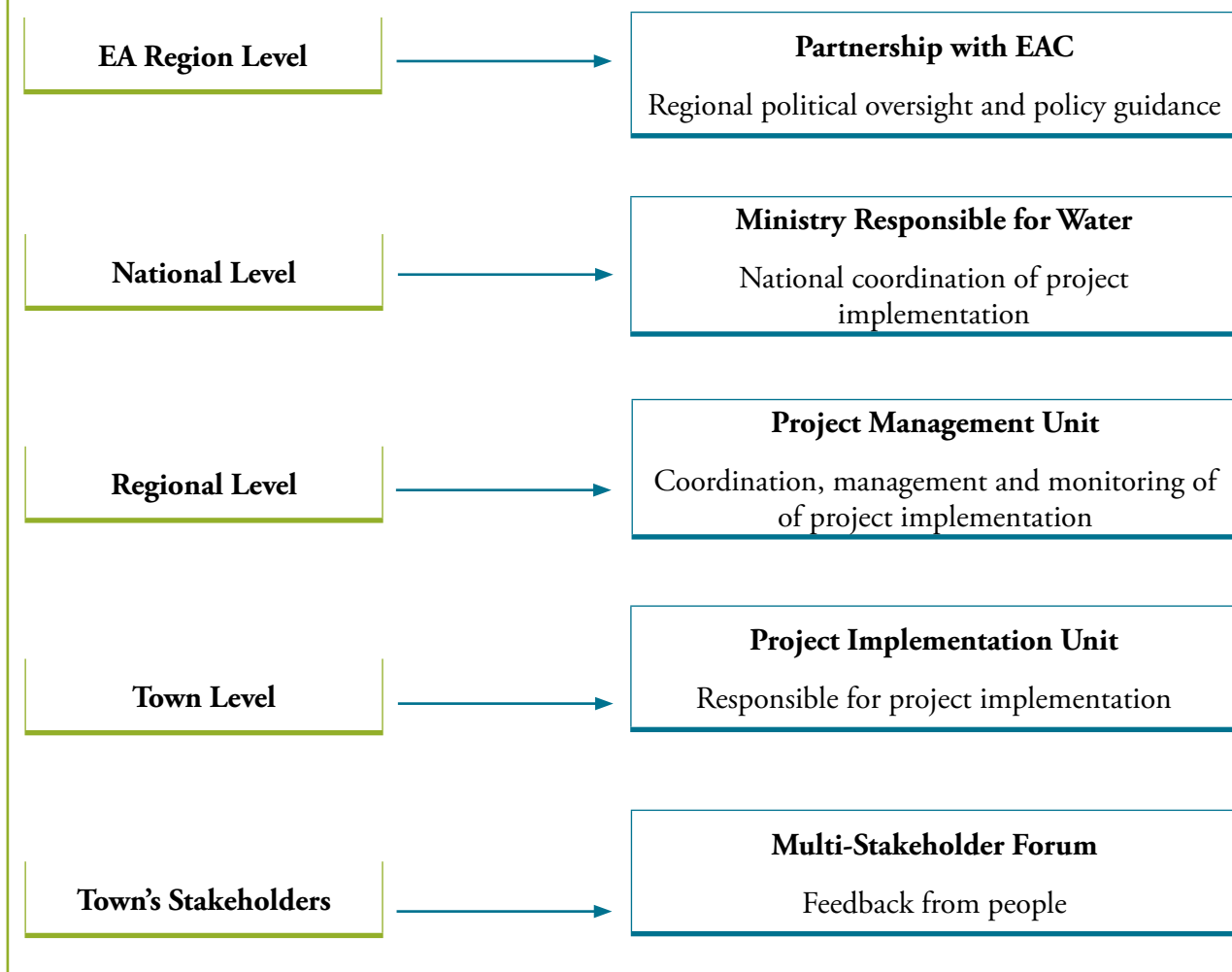
### MULTI-STAKEHOLDER FORUMS

To encourage ownership at local level, Multi-stakeholder Forums (MSFs) bringing together representatives of municipal authorities, service providers, local businesses, NGOs, and CBOs

have been formed in the project towns. The MSFs facilitate the active participation of a broad range of stakeholders at town level, in the design and implementation of the programme interventions. They also help to raise local awareness, develop understanding, ensure buy-in and build local support for the programme by promoting active stakeholder participation.



Water pipes for Gusii water company, Kisii Kenya.  
Photo © UN-HABITAT

**Figure 1** Programme Management Structure



## ENGAGING STAKEHOLDERS THROUGH THE MULTISTAKEHOLDER FORUM

A Multistakeholder Forum is a group composed of representatives of a wide range of local stakeholder groups whose main purpose to engage as many town-level stakeholders as possible in the design, planning, implementation and monitoring of all programme activities. In the longer term, it is designed to involve stakeholders in improving local governance.

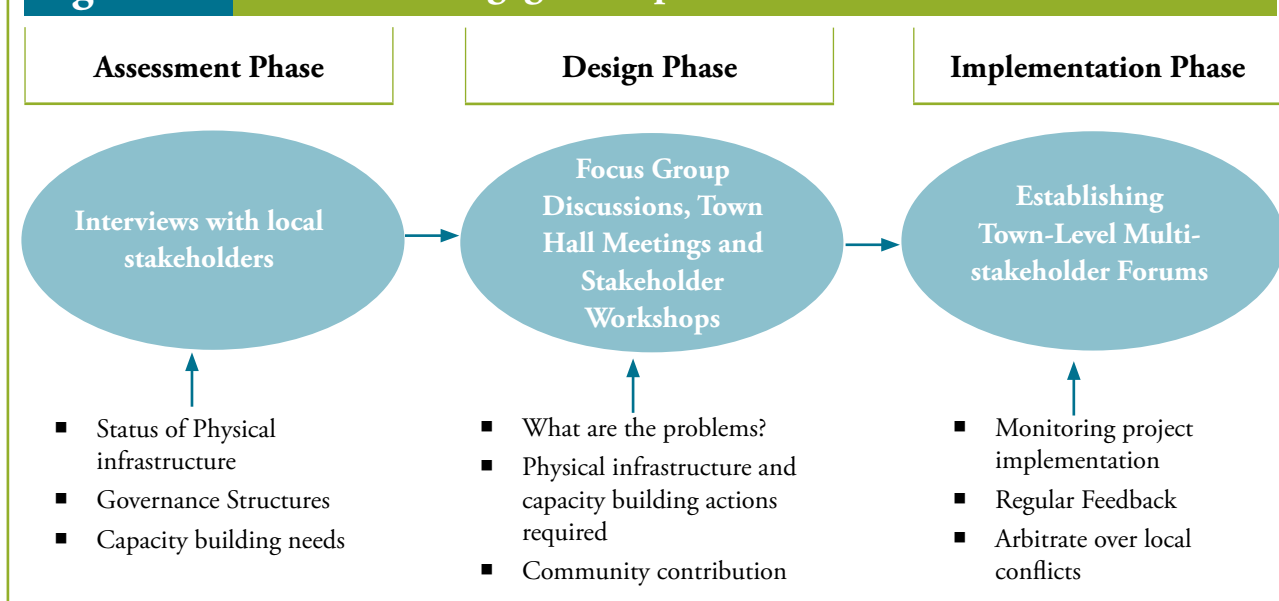
### RATIONALE FOR THE MULTISTAKEHOLDER FORUM

Development projects and programmes are more likely to meet their objectives when local stakeholders are encouraged to participate in defining their problems, as well as prescribing, implementing and monitoring remedial solutions.

In the Lake Victoria Water and Sanitation Initiative, stakeholder participation is designed to ensure that:

- The strategic interventions of the programme are developed in a participatory manner that responds to the needs of local stakeholders.
- The stakeholders understand and support the achievement of its goals and objectives.
- Stakeholder interests, experiences and innovative ideas are recognized and incorporated into programme planning and implementation.
- Open channels of communication are maintained with local stakeholders and their views fed back into programme implementation.
- Strategic implementation and monitoring partnerships are developed with stakeholder groups.

**Figure 2** Stakeholder engagement process in the Lake Victoria Initiative



## PROVIDING STRATEGIC URBAN PLANS TO GUIDE THE DESIGN OF WATSAN INFRASTRUCTURE

An appropriate spatial framework is necessary to guide the design of the physical interventions being implemented under the Initiative. Accordingly, the preparation of urban plans for the Lake Victoria towns is considered an integral part of the capacity building component of the programme. This is a cross-cutting and complementary initiative that aims to deliver Strategic Urban Development Plans for selected secondary towns through a participatory and consensus building processes by their key stakeholders. These plans are to be coupled with priority Action Plans and Investment Plans thereby linking them with budgeting processes of the respective local authorities and of relevant central government ministries.

The process of preparing the Strategic Urban Development Plans has the following stages.

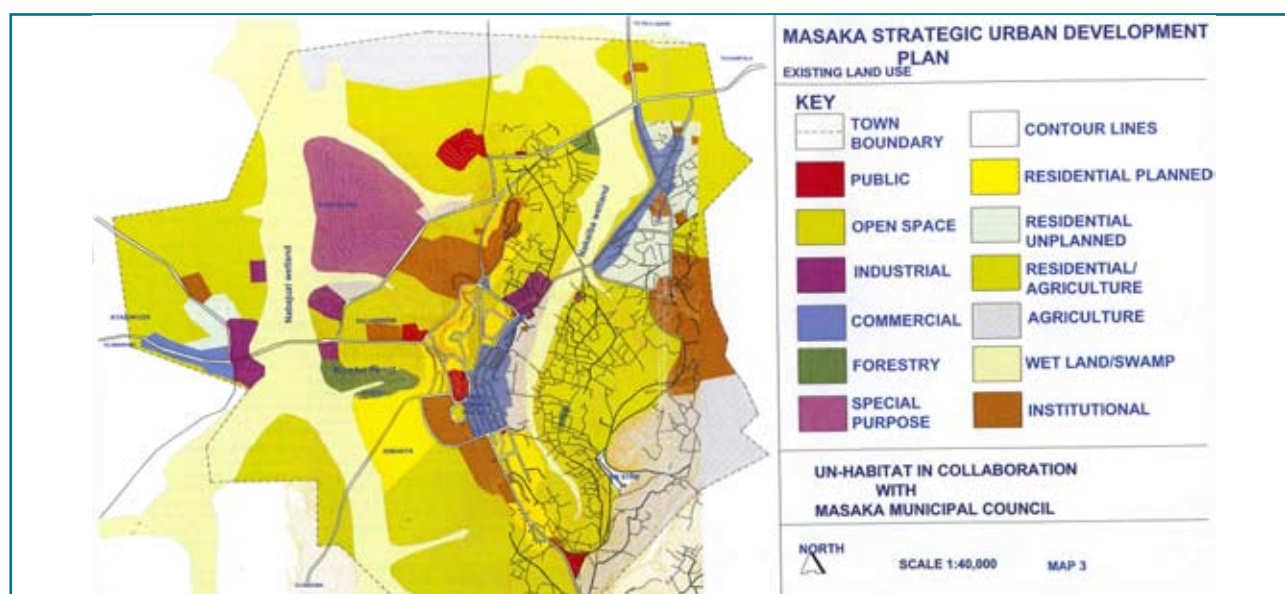
- Production of up-to-date Base, Thematic and Issue maps for the towns
- Production of socio-economic, environmental, ecological, and structural profiles of the towns.

The profiles for the towns which have been through the CDS process will build on their environmental profiles.

- Consultative meetings of all key stakeholders in the respective towns to develop future visions for the towns based on the profiles and which will also include analysis of alternative future development scenarios.

Development of strategic urban development plans for the towns which articulate the visions for the towns' future in spatial form. The Strategic Urban Development Plans will comprise of statements of development policies and functional layouts

Phase one of the urban planning initiative in the Lake Victoria region has been completed in the seven pilot towns of Homa Bay and Kisii in Kenya, Masaka and Kyotera in Uganda, and Bukoba and Muleba in Tanzania and the border town of Mutukula. Strategic Urban Plans have been prepared for these towns and the Local authorities in these towns are also now applying an integrated approach to urban planning and the provision of utilities and services including water and sanitation.



## PARTICIPATORY COMMUNICATION STRATEGIES TO RAISE AWARENESS AND MOBILIZE PROGRAMME SUPPORT

Visibility of the Lake Victoria Water and Sanitation Initiative is achieved through a dedicated website, the publication of programme materials, manuals, tool kits and fact sheets and participation in international and regional water and sanitation conferences, workshops, and exhibitions at the global and regional levels. These include the World Water Forum, the Stockholm Water Week, Africa Water Week, the Africities Conference, the Governing Council of UN-HABITAT and Conferences of the International Water Association and Africa Water Association. All these events feature special side events and exhibitions highlighting programme activities. Promotional and information material on the programme is widely disseminated at these events. To support awareness raising activities, a series of television documentaries have also been produced on the Lake Victoria Water and Sanitation Programme which focus on project beneficiaries in the project towns and the overall contribution of the interventions towards the achievement of the Millennium Development Goals for water and sanitation.

### MONITORING WATER AND SANITATION COVERAGE

UN-HABITAT has developed a comprehensive framework to monitor water and sanitation coverage in 17 towns as part of the Lake Victoria Region Water and Sanitation Initiative (LVWATSAN). This process will help in tracking progress towards meeting the water and sanitation targets set out in the Millennium Development Goals (MDG 7 Goal 10) and the Johannesburg Plan of Implementation. It will also ensure that investments in the LVWATSAN Programme target the poorest communities in these towns.

The monitoring framework incorporates a baseline household survey (the Urban Inequities Survey), development of a Geographic Information System (GIS) for each secondary urban centre, application of

Remote Sensing Technology in community profiling (through the acquisition of High Resolution Satellite data), and building the capacity of local authorities to maintain and update the information.

### URBAN INEQUITIES SURVEY (UIS) CARRIED OUT IN 17 SECONDARY URBAN CENTRES

Urban Inequity Survey tools were developed by the Monitoring Systems Branch of UN-HABITAT and localized for the project area in collaboration with the National Statistical Bureau of each country.

Training programmes were designed locally in collaboration with the National Statistical Bureau (NSB) in each country for household listing and Urban Inequity Surveys; 25 listers and or enumerators and five supervisors were trained jointly by the experts from UN-HABITAT and the National Statistical Bureaus on the following survey tools prior to the pre-testing exercise:

- The community profile
- Household questionnaire
- Women's questionnaire
- Child questionnaire
- GIS, remote sensing and GPS technology application in community profiling

A comprehensive Interviewers' and supervisor's Manual has been developed for the Urban Inequity Survey data collection process.

The Urban Inequity Surveys field exercise was jointly planned, designed and implemented by UN-HABITAT and individual National Statistical Bureaus teams in each country according to their data collection frameworks. The field work was initiated by listing and community profiling in each enumeration area (cluster units used by National Statistical Bureaus) until

completion of the total urban extent of each of the 17 secondary urban centres. A total of 1,500 household samples were selected in each urban centre according to the predefined sampling framework for the Urban Inequity Surveys.

This is the first time high resolution satellite imagery has been used during the UIS baseline surveys by the National Statistical Bureaus in the project countries to create the spatial information profile of water, sanitation, solid waste and other infrastructure in each of the enumeration areas of the towns.

### GIS DATABASE DEVELOPED FOR THE TOWNS

Application of Geospatial technology in urban planning, utility networks and socio-economic mapping is not only useful for implementation of the Programme, but will also enhance the capacity of local and national authorities in planning and policy formulation.

UN-HABITAT applied Geospatial technology and used very high resolution satellite imagery (of 0.6 meter resolution) for each project area in Kenya, Uganda and

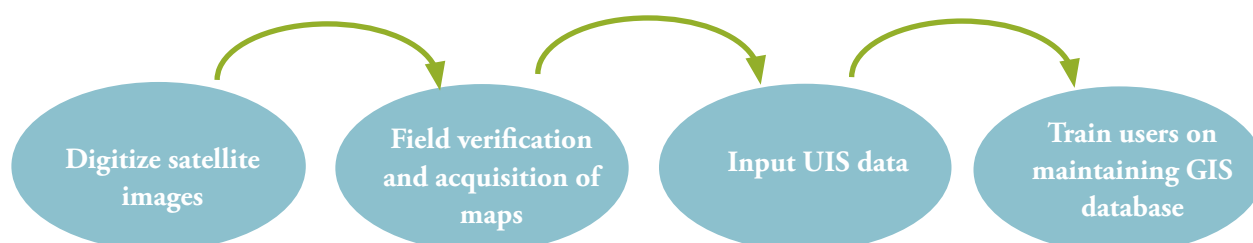
Tanzania. These satellite images were used to develop the GIS map layers along with the available maps or GIS data sources for future geospatial applications such as urban Info, revenue mapping, utility mapping, etc.

All the digital maps were synchronized on the same GIS platform as the first building block of the GIS databases. Dynamic geo-databases have also been developed, similar to the static statistical database, where all the information such as the structure or buildings name, location, size, plot number, purpose etc., has been recorded.

This was the first time all the National Statistical Bureaus have applied Geo-spatial techniques in field data collection similar to their traditional census exercises (using hand drawn maps). Convergence of digital technology in mapping opens a new dimension in traditional census processes, enabling the National Statistical Bureaus in Kenya, Uganda and Tanzania to adopt a geospatial technological approach in their upcoming census exercises.

**Figure 3**

### Methodology for the development of a Geographic Information System





## WHAT HAS THE PROGRAMME DELIVERED?

The first Phase of the Lake Victoria Region Water and Sanitation Initiative is now nearing completion. The key results so far have been:

- 200,000 persons provided with safe and sustainable supplies of safe drinking water
- 90,000 persons benefitting from improved sanitation
- Capacity building and training provided for six water utilities resulting in increased revenues and improved operational efficiencies and long term performance improvement plans in place.
- Solid waste management systems established in seven towns resulting in higher standards of environmental sanitation and reduced pollution of Lake Victoria;
- A replicable model to provide water and sanitation services to vulnerable families established and already benefitting over 8,000 persons
- Sanitation micro-credit schemes established in 10 towns and over 25 CBOs trained on the operation of micro-credit schemes.
- Multi-Stakeholder Forums set up in 10 towns to provide a forum for community engagement in the water and sanitation sector and a wider involvement in local development initiatives.
- A monitoring tool to track progress in meeting the MDGs, which, with the support of Google.org, is now being further refined and improved to track a wide range of watsan and utility indicators using the latest IT tools and participatory monitoring approaches.



Joep Bijlmer from the Netherlands commissioning a water kiosk in Bobaracho, Kisii. Photo © UN-HABITAT

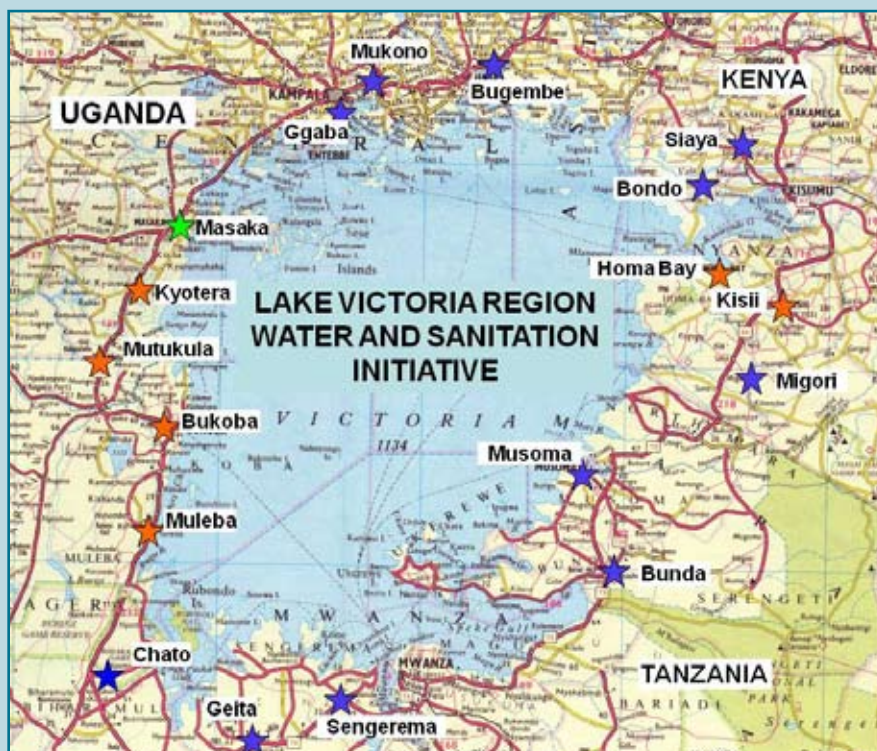
## KEY LESSONS LEARNT

1. The integrated approach to water and sanitation development is critical. In order to achieve an effective impact in expanding access to water and sanitation services and reducing poverty and environmental degradation, the design of water and sanitation programmes for small towns should reflect a reasonable balance and allocation of resources between the eight key components:
  - physical infrastructure
  - solid waste management
  - basic sanitation and hygiene promotion
  - watsan services to vulnerable groups,
  - school water supply and sanitation,
  - training and capacity building for service providers, institutions and CBOs,
  - skills training for women and youth, and
  - promoting gender parity
2. Human resources and institutional capacity in small towns is usually very low. The capacity building programme should be started early and should be used as a platform to engage local stakeholders in the design of the physical interventions. This will ensure local ownership.
3. Water utilities in small towns can significantly improve their performance to the extent of covering their operation and maintenance costs. This requires an approach that integrates infrastructure improvements with training and capacity building and the adoption of a long term strategic planning approach based on the Performance Improvement Plan as a tool for performance management.
4. Town-level institutional structures which engage the key local stakeholders (Project Implementation Unit and Multi-Stakeholder Forum) are crucial components of the institutional structure for the management of water and sanitation programmes given the inter-disciplinary and multi-sectoral nature of such programmes and the close interaction between programme activities and the social and political environment.
5. The Multi-Stakeholder Forum, with adequate community and women's participation can serve as an important platform to engage local stakeholders in the programme design and implementation process and can contribute to an enhancement of pro-poor governance structures in small towns
6. The revolving fund approach is feasible as a means of expanding access to basic sanitation for poor and women-headed household. The approach has enormous benefits in mobilizing community savings for investment in sanitation. However, the management and oversight arrangements must be carefully designed and the schemes must include a strong sanitation social marketing component.









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