

305.42 9752



**Water and
Sanitation
Program**

UNDP World Bank

Library

IRC International Water
and Sanitation Centre
Tel.: +31 70 30 689 80
Fax: +31 70 35 899 64

**Strategic Environmental
Sanitation for the Urban
Poor**

**Summary Report of
the Regional Workshop on
Urban Environmental Sanitation**

**East and Southern
Africa Region**

305.42-9752-17111

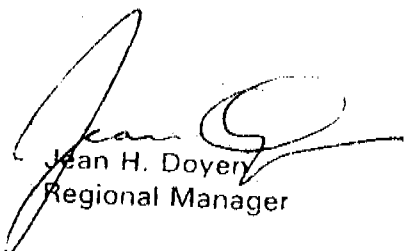
Forward

Lack of access to water and sanitation services is at the heart of the poverty trap. Past investments in water supply and sanitation services to the poor have not kept pace with population growth, especially in the fast-expanding informal urban settlements. The persistence of current trends would lead to unacceptable outcomes: the number of people unserved would have increased by the year 2020 and with it untold negative health, economic and environmental impacts.

Sanitation performance in the East and Southern African region, particularly in its informal settlements, is without doubt, unacceptable and growing worse with each passing year. The UNDP-World Bank Water and Sanitation Group for East and Southern Africa together with its partners, notably, UNICEF and UNCHS-Habitat have in the past year began a process of systematic addressing the problem. A strategy supporting Urban Environmental Sanitation (UES) improvement has been initiated in the focus countries namely Ethiopia, Kenya, Tanzania and Uganda. This regional collaborative effort is aimed at raising the sanitation profile to policy level and give a wider attention to the needs for improved sanitation services for the poor in the urban centres.

The workshop was designed to kick start a regional consultative process which will be followed by country level initiatives that should lead to changed approaches at project level. Monitoring and evaluation of the impact will follow and experiences exchanged both within countries and at regional level.

This report is a summary of the proceedings at the workshop and includes major inputs and outputs from the workshop. The full report can be obtained from the Regional Water and Sanitation Group in Nairobi.



Jean H. Doyer
Regional Manager

Abbreviations

ALGAK	Association of Local Government Authorities of Kenya
CBO	Community Based Organization
ESA	External Support Agencies
GTZ	German Development Cooperation
KWAHO	Kenya Water for Health Organization
LFA	Logical Framework Approach
MoLG	Ministry of Local Government (Kenya)
Netwas	Network for Water and Sanitation
NGO	Non-Governmental Organization
ODA	Overseas Development Administration
PHAST	Participatory Hygiene and Sanitation Transformation
PSP	Private Sector Participation
SIDA	Swedish International Development Agency
SSA	Strategic Sanitation Approach
UES	Urban Environmental Sanitation
UNHCS	United Nations Human Settlement Centre for Settlement
UNICEF	United Nations Children's Fund
WHO	World Health Organization
WSSCC	Water Supply and Sanitation Collaborative Council

Contents

1. Background Of The Workshop	1
2. Workshop Participants, Facilitation And Approach	2
3. Workshop Process And Agenda	3
4. Workshop Inputs	3
5. Key Issues And Constraints	6
6. Workshop Outputs	10
7. Way Forward	14

1. Background of the Workshop

1.1 Urban Environmental Sanitation In The Region

The mounting problem of urban poverty and unemployment has brought renewed attention to the search for replicable models to address the nexus of urban poverty, poor health and environmental degradation in slums and peri-urban settlements.

Strategic approaches to services for the poor have mostly been lacking in the region. The nature and quality of urban UES vary within urban areas and across countries. Policy frameworks are often inadequate in that they do not address the specific needs of the urban poor. These policies govern land tenure, building codes and standards and public health.

Despite the desperate conditions in many peri-urban areas, resources have been difficult to mobilize. This is partly a result of the illegal status of many settlements and different country and donor priorities. Non governmental organizations (NGOs) and Community Based Organizations (CBOs) are the key actors involved in the provision of sanitation services to the poor. Unfortunately, they often operate in a piecemeal fashion, duplicating services or contradicting one another.

Meanwhile, urban environmental sanitation is now increasingly recognized as an important element of urban development and environmental programs. The Water Supply and Sanitation Collaborative Council (WSSCC), Working Group on Services for the Urban Poor has, based on world wide research by the Italian Institute CERFE, identified six inter-related themes of urban environmental sanitation and developed guidelines for action. The six papers are about:

- ♦ Security of tenure and other legal issues;
- ♦ Peoples' participation;
- ♦ Cost recovery and resource mobilisation;
- ♦ Appropriate technologies;
- ♦ Institutional reform and capacity building; and
- ♦ Water resources conservation and management.

A number of agencies are showing interest in funding user-based, demand-driven approaches. The Strategic Sanitation Approach (SSA), evolved by the UNDP-World Bank Water and Sanitation Program, is one such approach that has created considerable interest. SSA is based upon the belief that provision of sustainable UES is only possible by a demand-oriented delivery system, offering alternative technological options and corresponding institutional arrangements. The approach stresses the importance of financial policies (at community and agency level) and careful consideration of performance incentives of various actors in system construction, operation and maintenance.

Objectives of the Workshop

The regional workshop was meant to build on global experiences, documented by WSSCC, and be a 'springboard' for country level UES initiatives such as documentation of best practices, seminars, workshops and pilot projects. These initiatives will be undertaken or encouraged by the country teams and would then be closely linked to current and planned project level activities and policy development.

The **specific objectives** of the regional UES initiative include the:

- √ formation of country teams of dedicated UES professionals in Ethiopia, Kenya, Tanzania and Uganda;

- √ preparation of country papers on UES issues of particular concern;
- √ the organization of a regional workshop to exchange best practices in UES and discuss the SSA;
- √ implementation of country level follow-up activities (documentation of best practices, seminars, workshops and pilot projects); and
- √ enhanced capacity for improved UES policies and project designs.

2. Workshop Participants, Facilitation and Approach

2.1 Country Teams and Preparations

Prior to the regional workshop and as a fundamental strategy to the regional initiative, a team of five carefully selected professionals from each of the participating countries in East Africa, was formed. Each team was given the task to prepare a country UES status paper to be presented during the workshop by one person in the team. In order to facilitate the final preparation of the paper its presentation, a three-day pre-planning workshop was organized in Nairobi. Country team leaders, resource persons from NETWAS, Habitat and RWSG-ESA and the facilitator analyzed the country papers and gave a final editing touch. (see Chart on page.4)

In addition to the participants, there were resource persons from UNDP-World Bank Water and Sanitation Program Headquarters (Washington), the Regional Water and Sanitation Group for West Africa (Abidjan), CERFE (Rome), UNCHS (Habitat, Nairobi), UNICEF (Nairobi, Kampala, Addis Ababa), ODA (Nairobi), WHO (Geneva), KWAHO (Nairobi), SIDA (Nairobi), Netwas (Nairobi), Ministry of Local Government (Kenya), National Water and Conservation Corporation (Kenya) and colleagues from the Nairobi based Regional Water and Sanitation Group.

2.2 Approach/Methodology

The workshop process was facilitated by a team from Guiding Systems Consult (GS Consult), Nairobi. The approach used during the workshop was sharing through active participation and brainstorming where some tools from the Logical Framework Approach (LFA) were employed. The principle governing this approach is based on the premise that: "**every participant**" is a "**resource person**" and "**every resource person**" is a "**participant**" because "**nobody knows everything**" and "**everybody knows something**" for "**together we know more than any single individual**".

Ideas from participants were written on meta plan cards of different colors and posted on pin-boards for visualization. Other visual aids such as overhead projectors and video facilities were also used.

Presentations by resource persons were followed by brainstorming sessions in plenary highlighting the main issues of concern. The plenary sessions were then followed by group work where the issues were analyzed and recommendations made. These were then presented in plenary and through sharing a consensus was achieved.

3. Workshop Process and Agenda

The five days Agenda consisted of the following main phases:

■ **Inputs:**

- Welcome, introduction and formal opening
- Country presentations from Ethiopia, Kenya, Tanzania and Uganda
- Resource persons presentations: WSSCC/CERFE on Global Urban Sanitation Study, Kibera Urban Sanitation Pilot Project, PHAST and Strategic Sanitation Approach
- Field visits to informal settlements in Nairobi

■ **Deliberations and discussions in plenary, mixed groups and country teams**

■ **Outputs**

- Country options analysis and action plans
- The Way Forward
- Closing remarks by RWSG-ESA Manager

3.1 Welcome Remarks

Participants were welcomed to the workshop by Mr. Lars Karlen, the Institutional Development Specialist, RWSG-ESA. Mr. Karlen outlined the objectives of the workshop, adding that the workshop would set a basis for urban sanitation activities in the represented countries. He suggested this workshop to be one "with a difference" which would come up with realistic and practical recommendations based on good country presentations and active deliberations. He also thanked the co-organisers and sponsors of the workshop.

3.2 Opening of the Workshop

The workshop was opened by Engineer S. Muchinyi, Deputy General Manager of Water and Sewerage Department, Nairobi City Council. Eng. Muchinyi pointed out that the main challenge facing developing countries is the improvement of living standards for the urban poor through provision of adequate water and sanitation services. He suggested that the workshop should examine the factors that hinder the provision of urban environmental sanitation such as limited resources, non application of appropriate technologies, inadequate institutional arrangements, ownership of land and/or the dwellings in informal urban settlements.

Opening remarks were also made by co-organisers Dr. Ivo Imparato of Habitat and Mr. Matthew Kariuki of NETWAS who stressed the importance of the workshop resulting in suggestions to practical solutions to improved urban sanitation in the region.

3.3 Closing Remarks

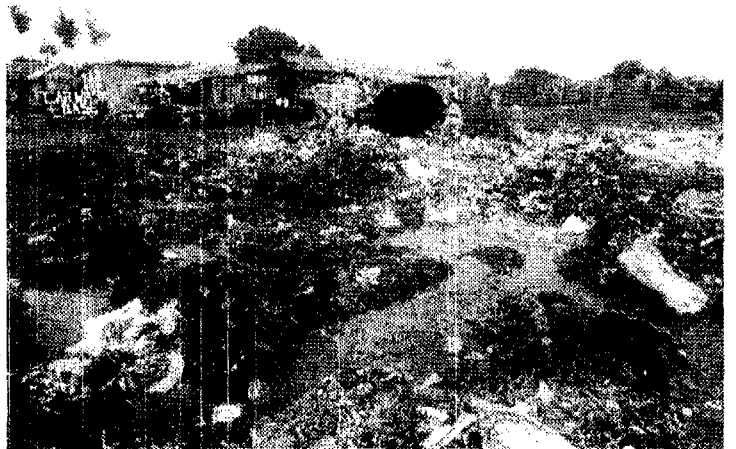
The workshop was closed by the RWSG-ESA Regional Manager, Mr Jean Doyen, who pointed out that the key to success is the creation of a champion team that has as its goal to improve sanitation services for the urban poor but this shall requires political support. The team would invest not only in technical know-how but also in appropriate and modern communication systems. It is important that linkages with operations and interface with trunk systems and utilities be developed in each country in the region.

There is a common goal in the region to improve UES. What needs to be developed is also a shared approach to reaching the goal.

The teams shall be the focal points of regional consultations on UES matters with RWSG-E&SA.



Open trench in slum area



Stagnant water in uncollected garbage heap

4. Workshop Inputs - Summary of Presentations

□ Country Teams

Ethiopia

In the framework of existing sanitation conditions related to water collection and disposal by public agencies and community organizations, the following key points were noted:

There is need for:

- ⇒ Sanitation policy
- ⇒ Awareness building campaign
- ⇒ Institutional capacity building
- ⇒ Coordination among implementing agencies
- ⇒ Consistent community participation
- ⇒ Feasible cost recovery mechanism
- ⇒ Provision of security of tenure

Uganda

The analysis of solid waste management in Kampala, i.g. volumes of solid waste generated and its composition as well as facilities for storage and transport, identified the following key problems:

- ⇒ Cost recovery
- ⇒ Resource mobilization
- ⇒ People's participation
- ⇒ Security of tenure
- ⇒ Choice of technologies
- ⇒ Capacity building

Priority should be given to mobilization and sensitization of urban communities in participatory methodologies to create the right attitudes and skills for solid waste management.

Tanzania

The identified constraints regarding the sanitation components of water supply and solid waste management were:

- ⇒ latrine accommodation
- ⇒ sullage
- ⇒ sewage management

Priority should be given to: sorting, re-use, re-cycling and composting at point source of solid waste selection of land fill sites to reduce ground water pollution.

Kenya

With the focus on unplanned settlements in Nairobi and Mombasa, government supported housing schemes and the problem of excreta disposal, the paper points at the need for:

- ⇒ Partnership and coordination of actors in the sector
- ⇒ Data gathering and analysis
- ⇒ Dissemination

CERFE

The Italian Research Institute conducted, on behalf of the WSSCC Working Group on Urban Sanitation, a global research on urban sanitation issues.

The result were six areas of concern:

1. Security of land tenure
2. People's participation
3. Cost recovery
4. Resource mobilization
5. Policy options, institutional reform and capacity building
6. Water resources management

Regional Water and Sanitation Group - East and Southern Africa

Kibera Urban Sanitation Pilot Project has two major components:

- 1) Water supply Distribution and Infilling;
- 2) Urban Environment Pilot Project aiming to develop replicable approaches to community based water supply and sanitation services.

The objectives are inter alia to improve access to affordable water supply, improve the water distribution network increase access to better sanitation facilities and mitigate against environmental degradation.

The Participatory Hygiene and Sanitation Transformation (PHAST) methodology, initiated by RWSG-ESA and World Health Organization and piloted in four countries in the region, promotes hygiene and sanitation practices and community management. It builds on people's ability to address and resolve their own problems. PHAST has - through the use of visual aids, led to increased community participation, where people analyze their situation and are able to plan for and implement change.

The Strategic Sanitation Approach (SSA) was developed by the UNDP-World Bank Water and Sanitation Program and was piloted in Kumasi, Ghana. It builds on a demand-driven delivery system, offering alternative technological options and corresponding institutional arrangements. The SSA stresses the importance of financial policies, performance incentives in system selection, construction, operation and maintenance.

FIELD VISITS

Field visits were made to four informal settlements in Nairobi resulted in the following key observations:

- Land tenure problem
- Low accessibility to the settlements
- Lack of cost recovery mechanism in donor funded projects
- Inadequate space to build pit latrines and poor drainage
- Lack of garbage collection
- Lack of attention by city authorities and the affluent sections of the society to the needs of the slum dwellers.

5. Key Issues and Constraints

The workshop discussed all the inputs and concluded the following key issues:

Legal Framework

Land Tenure

Issues identified include lack of landfill sites and land tenure in unplanned settlements. There is need to plan and secure land for solid waste disposal. The private sector should be encouraged to participate through an enabling environment.

Land Rates

It was found that informal settlements are lucrative businesses and generate a lot of wealth in terms of rent. The landlords should therefore pay rates which can be used in improvement and maintenance of the settlements.

Community Empowerment

Capacity Building Community Involvement

Lack of skills in UES is a major problem. Another key issue is the involvement of the community in UES. Clear roles, responsibilities and accountability of the community should be defined and appropriate approaches and methodologies used to involve them in decision making. Sanitation services provided should be based on expressed demand from the communities.

Urban communities are big and lack representative structures. Methods of action planning and decision making should be identified. Means of reaching the decision makers should also be developed.

Planning with People

Informal settlements can be improved but the people should be involved in planning at all levels. The residents should also give the direction of development. The budget allocation to slum areas should be checked in comparison to developed areas.

Information on UES

A key issue identified is the information management for urban sanitation. There is need for advocacy for policy recognition. Sanitation promotion should be prioritized.

The problem identified is how to disseminate participatory approaches to government practitioners, the extent and integration of community participation. There are good participatory approaches in use but they are both time-consuming and expensive. Success of PHAST should be used to consolidate community empowerment. New initiatives e.g. SARAR should be used as a linkage to previous or existing endeavors. The roles of chiefs in informal settlements should be defined.

There is need for attitude and behavioral change and awareness creation on UES issues.

Institutional Reforms

Policy

The main issue is how policy can facilitate all willing actors to participate. Informal settlements need not be destroyed but can be improved on or relocated. The way forward include identification of means to prevent new informal settlements, resource allocation for user services, decision making at all levels and political commitment to sanitation problems. Policy and legislation should facilitate this.

Political Will

Problems in the slums are as a result of lack of political will. There is complete lack of government commitment to addressing informal settlements problems. There is need for advocacy for favorable policy for informal settlements.

The problems of informal settlement all revolve around poverty, both at micro and macro levels. The rich repress the poor and have no affection for them. The landlords should be taxed and the tax be ploughed back for improvement of the informal settlements.

Institutional Set-up

Roles and responsibilities of institutions involved should be defined. Transparency and accountability of institutions involved in provision of services should be enhanced and a mechanism for coordinating key players be put in place.

Resource Mobilization

Cost Recovery

A key issue is the cost recovery versus the ability of the poor to pay. Sanitation services are expensive for the poor. Sanitation services should be subsidized and a financing mechanism for sanitation intervention introduced. The community should finance options for water and sanitation. Resources should be mobilized through tariffs and recycling and the pricing of services should provide incentives. Sanitation should be subsidized. Water and sanitation initiatives should include investments in the youth for higher gains.

Private Sector and the Role of Investors

The issue of privatization of garbage collection (solid waste) was raised. Mechanisms and guidelines for private sector involvement should be developed and means of involving private sector in participatory methodologies identified. Participants however, expressed their concern on effects of privatization for instance in manpower redundancy.

The problems of informal settlement all revolves around poverty, both at micro and macro levels. The rich repress the poor and have no affection for them. The landlords should

be taxed and the tax be ploughed back for improvement of the informal settlements.

There is need to discuss the incentives for respective actors to improve the situation. Issue of private sector involvement should be discussed at length in terms of who will invest, what are the returns and collection methods. The percentage of budget allocation from town council for development of informal settlements should be analyzed.

Technology

There is a range of feasible technical solutions. Options for waste disposal (liquid and solid) should be identified and a criteria for determining the adequacy or appropriateness of technology developed. Organic load in the solid waste should be reduced.

Preventive Strategy

To avoid rapid urbanization, social facilities in the small towns have to be maintained and job opportunities created. Small towns should be developed to minimize the problems of growing cities like Nairobi. Priority should be given to new, up-coming settlements. Prevention of migration from rural areas to urban centers is impossible. A balanced town development to retain the influx is recommended.

The above issues have been incorporated in the options analysis and the country action plans.

6. Workshop Outputs

- Country Action Plans
- Statements
- The Way Forward

6.1 COUNTRY ACTION PLANS

The country teams developed action plans that were based on the options developed earlier in the workshop. The action plans, based on the LFA, provide an outline of outputs and activities, progress indicators, time frame (1997-1999), risks/assumptions or remarks.

Below is a summary of each country's plan of action.

ETHIOPIA

Overall Goal: Develop replicable and sustainable UES in the country.
Purpose: To have improved sanitation in urban areas with emphasis to low income areas. The Ethiopian country team came up with eight outputs which are divided into intermediate (six months), medium-term (twelve months) and long-term (more than one year).

Intermediate Output:

■ Country Team Would Be Operational

Activities:

- disseminate the recommendations of the regional workshop
- to initiate the process for formation of country team
- identify stakeholders for country team
- conduct a national workshop
- form a country team with terms of reference.

Medium-term Outputs:

■ A National Sanitation Strategy Would be Formulated

The country team would be required to:

- adopt a national sanitation policy
- adopt sanitation aspects of public health legislation/regulation
- promote participatory urban planning (existing and new housing).

■ A Regional Urban Environmental Sanitation Team Would be in Place

The country team would:

- disseminate the recommendations of the national workshop
- initiate the process for formation of regional teams
- conduct workshops in administrative regions and form regional teams.

Long-term Outputs:

■ Cost Recovery Policy

Activities:

- X the formulation of cost recovery policy
- X streamlining of government top-up system for UES
- X re-enforcement of government top-up system in low income areas
- X drafting of guidelines and systematizing them for revolving funds
- X development of financial management system to operationalise user fees and community contribution
- X development of O & M mechanism linking with income generating activities and community financial system. These activities would be executed by the country and regional teams.

■ **Effective Institutional Framework**

This would be achieved through:

- X advocacy for improved sanitation
- X identification and provision of clear guidelines on UES components for private sector formulation of guidelines for operational partnerships
- X definition of roles and responsibilities of stakeholders
- X development of training programmes for UES and systematizing them for coordinated implementation and initiation and systematization of participatory community methodologies in UES.

■ **Community Management System**

The regional and country teams are to:

- X assess effective application of participatory methods
- X develop guidelines for community organization and management system
- X train staff in participatory methods
- X recognition of informal UES committees as key partners of low income areas
- X introduce demand response mechanisms.

■ **Management Information Systems**

Activities required include:

- X development of UES communication at all levels
- X establishment of a data center
- X establishment of networking with regional and international organizations.

■ **Technology Promotion**

Activities:

- ✗ promotion of strategic sanitation approach
- ✗ devise and promote feasible procedures for sorting and recycling of solid waste
- ✗ assess introduction of innovative technology (dry sanitation)
- ✗ promote applied research and development in alternative technology.

KENYA

- Overall Goal** Improved quality of life of the urban population especially the urban poor.
- Purpose** Improved environmental sanitation in informal settlements.

The Kenyan team developed five outputs to be achieved by 1999 which would in turn lead to improved sanitation in informal settlements, assuming that external factors would be favourable.

■ **Tenure will be Secured**

Activities:

- ✗ review Informal Settlement Steering Group strategy by December 1997
- ✗ meet Nairobi Informal Settlement Environmental Project mission in reference to UES issues by June 1997
- ✗ hold a conference of land tenure by June, 1998.

■ **Adoption of Building Codes**

Activities:

- ✗ review Grade I and II by-laws for Nairobi and Mombasa
- ✗ in collaboration with the country team identify actors to prepare technical papers on adoption of Grade II by-laws.
- ✗ This is based on the assumption that political goodwill would exist.

■ **Involvement of Private Sector In Environmental Sanitation**

Activities:

- ✗ review private sector involvement by Municipal Council of Mombasa, ALGAK, MoLG, and country team.
- ✗ assist council with a framework for PSP between January and June 1998
- ✗ do a capacity building of small scale enterprises between July 1997 and December 1999. Major risks here are information availability, interest by responsible councils and availability of funds.

■ **“Information Would Be Gathered And Disseminated”**

Activities:

- ✗ holding an information strategy design meeting involving the country team, think tank, media, ALGAK, NGOs and ESA
- ✗ identifying topics for further investigation involving the country team and ALGAK.

■ **Empowering the Communities**

Activities:

- ✗ review legal status of CBOs between September and December 1997.
- ✗ share information with communities.
- ✗ introduction of income generating activities in UES projects
- ✗ The implementation of the above activities will be possible if the idea of reviewing the legal status of CBOs is not rejected by politicians, the information to be shared with communities is not misused and if there will be funds for income generating activities in UES projects.

TANZANIA

Overall Goal: To improve urban environment sanitation.

Purpose: To improve waste management in urban and peri-urban areas.

To realize the above purpose, seven outputs are planned

■ **Approved Technologies Introduced**

Activities:

- ✗ to map water logged areas
- ✗ study new appropriate technology for on-site sanitation.
- ✗ study on sludge emptying and treatment options
- ✗ creation of public awareness on sorting, composting and recycling.

■ **Improved Institutional Framework For Water And Sanitation**

The tasks are:

- ✗ formulate regulation to incorporate on-site sanitation.
- ✗ hold a workshop to share international experience in CBOs environmental monitoring.
- ✗ incorporate communities in monitoring of sanitation management
- ✗ review and reform urban by-laws.

■ **Private Sector Involvement Enhanced**

Activities:

- ✗ deregulate exhauster services for on-site sanitation.
- ✗ involve private sector in latrine emptying and construction.
- ✗ formulate private and public partnership guidelines.

■ **Cost Recovery Mechanism in Place**

Activities:

- ✗ carrying out a study on cost recovery and willingness to pay
- ✗ carrying out a study of revenue collection options
- ✗ carrying out a study of tariff setting option.
- ✗ carry out a training of community in revenue collection

Other outputs include:

- **Sensitization of Decision Makers** through "Workshop 1"
- **Develop A Map of Water Logged Areas In Dar-es-Salaam** through "Workshop 2"
- **Sensitization of Implementors And Operators** through "workshop 3"

UGANDA

Overall Goal: Better sanitation a responsibility for all
Purpose: Facilitate the improvement of quality of life for all through better sanitation. The Uganda action plan with a time scale from June 1997 to May 1998 has two objectives:

- ✗ To raise the profile of sanitation.
- ✗ To develop national sanitation policy strategy.

Activities:

The activities that will facilitate the realization of the above two objectives are:

- ✗ hold a national sanitation forum during the fourth quarter of 1997.
- ✗ Small Towns Water Supply Project consultative forum is to be held during the second quarter of 1997 .
- ✗ accelerated sanitation programme between April 1997 and January 1998.
- ✗ hold an Inter-Ministerial Steering Committee meeting during the third quarter of 1997 .
- ✗ finalize the sanitation policy (white paper) by third quarter of 1997.
- ✗ Ministry of Health to launch the sanitation policy and plan by first quarter of 1998.
- ✗ development of operational guidelines between July 1997 and February 1998.
- ✗ country workshop on UES is to be held during the second quarter of 1998.

7. WAY FORWARD

Strategy

- * Debriefing at country level
- * Consolidation of country teams
- * Definition of country agenda and program
- * Establishment of thematic working groups
- * "Lets do it"
- * Networking
- * Sharing experiences 'best practice'

Expressed Needs

- * Consultancy inputs - policy work, studies, piloting
- * Documentation support/information dissemination - technologies etc.
- * Inter-regional and inter-country exchange (visits)
- * Linkages to international networks
- * Inter-country, inter-personal communication (Internet)
- * Facilitation of country consultation

Wish List

- * Review of appropriate technology options (innovative options)
- * Guidelines for public-private partnerships (micro enterprises)
- * Assistance in policy formulation, strategies (SSA) and project design
- * Tools for community empowerment in community based UES projects
- * Guidelines for WTP, tariff studies and revenue mobilization
- * Monitoring instruments
- * Specific studies:
 - Sludge emptying/treatment
 - Mapping of water logged areas

The workshop was hosted and organized by:

UNDP-World Bank Regional Water and Sanitation
Group for East and Southern Africa

In collaboration with:

- ◆ United Nations Human Settlement Centre (Habitat)
- ◆ World Bank
- ◆ ODA
- ◆ CERFE
- ◆ WHO

Co-financed by the World Bank, GTZ, UNCHS (Habitat), ODA and
RWSG-ESA.

Copies available from:

Regional Water and Sanitation Group-East and Southern Africa
The World Bank
Hill Park Building
Upper Hill
P. O. Box 30577
Nairobi - KENYA

Tel: 254-2-260300/400
Fax: 254-2-720408 or 260386



REGIONAL URBAN ENVIRONMENTAL SANITATION STRATEGY SUPPORT

