



Lake Victoria Region Water and Sanitation Initiative

Supporting Secondary Urban Centres in the Lake Victoria Region
to Achieve the Millennium Development Goals

Solid Waste Management Component

Background

The Lake Victoria Region Water and Sanitation Initiative is a collaborative effort between UN-HABITAT, the Governments of Kenya, Tanzania, Uganda, and the Secretariat of the East African Community. It supports small towns in the Lake Victoria region to attain the water and sanitation target of the Millennium Development Goals. The initiative is designed to demonstrate that the water and sanitation target could be met in these towns with modest investments targeted primarily to rehabilitation of existing infrastructure, with due emphasis on capacity building at local level to ensure the sustainability of these services. Towns covered in the first stage include Kisii and Homa Bay in Kenya, Masaka and Kyotera in Uganda, Bukoba and Muleba in Tanzania and the Tanzania Uganda border town of Mutukula.

The programme activities among others include design and improvement of solid waste management (SWM) systems for the targeted secondary towns. These towns are of populations ranging between 20,000 and 200,000. This means that the waste quantities in each town are quite small at the moment but is projected to increase rapidly in the coming years as a result of rapid urbanisation experienced in the developing world.

Efficiency of basic service provision by any local authority depends on revenue it is able to collect from businesses and population within its jurisdiction. Because the targeted local authorities in this programme are relatively small, this equally translates into a meager economic power but which has to be shared to provide all the basic services that include solid waste management. Conventional donor support to local authorities have however failed in many places due to lack of cognisance of the afore said facts, leading into establishment of systems that are economically incongruent.

It is in this cognisance that the LVWATSAN solid waste management system has been developed as a tailor made approach which apart from introducing specially designed and economically viable SWM equipment, it is also recognises the role of local communities through promotion of low cost waste recycling activities as part of local economic development.

The specific objectives of the LVWATSAN Programme are to:

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

The SWM Strategy

Waste hauling distances from the towns to final disposal sites are all quite short, (typically 3km to 10 km) and where haul distances are short tractors have proven to be

much more cost effective than trucks due to their lower capital and operating costs, lower fuel and maintenance costs and longer life expectancy. Typically it has been found in developing countries that tractors are more efficient than trucks where there are haul distances of up to 20 km, or even in some situations 30 km. In the same way the life of a final disposal site depends on the volume it receives each day, in this regard the strategy in this programme have included:

- Tractor trailed systems manufactured by Farm Engineering Industries Limited (FEIL) at Kisumu in Kenya to a designs and specifications provided by UN-HABITAT such as:

1. LOW LOADING HEIGHT TRAILERS



2. HIGH TIPPING CONTAINER PICK UP TRAILERS.



- A Little Pickup (Ndume Little pick-up), manufactured by NDUME Engineering Ltd of Gilgil in Kenya that uses a two wheeled tractor as a power source and has been modified to suit UN-HABITAT's requirements.



- Promoting the participation of organised community groups in developing low cost waste collection and recycling enterprise.



- Development and/or improvement of final waste disposal sites



Development status

The SWM component development started in 2006 with preliminary studies in the seven secondary towns that recommended the appropriate designs. To date the following outputs have been realized:

- 14 little tractors developed at Ndume Ltd and distributed to the towns. Each pickup has 16 waste collection bins which are placed in strategic locations for communal disposal.
- Both Low Loading and High Tipping Trail Container Picking systems and the waste collection containers have been developed for distribution to the towns. The system will be operated by 65Hp tractors whose tenders have been issued. It is anticipated that the equipment will be distributed to the towns in the next one month.
- Organised community groups have been identified and mechanism put in place to engage them in developing low cost waste management enterprise. Local authorities have enlisted groups as part of the SWM system in the respective towns
- There is on going negotiations with the local authorities to either improve the existing or acquire land for the development of a new waste disposal sites as appropriate.