

## EXECUTIVE SUMMARY

Management of sewage is an important aspect of urban sanitation and plays a key role in the economic transformation of any country. In Uganda today, urban sanitation or lack of is a concern affecting people, which has been noted as a root cause of an average of 3,000 cases of cholera affecting Uganda. Statistics also indicate that poor sanitation costs Uganda 389 billion shillings annually, which is about 1.1% of the National GDP.

Management of sewage in Uganda is a mandate of National Water and Sewerage Corporation (NWSC) and involves all activities of collection, transportation and treatment of raw sewage before discharge to the environment. It has, however, been observed that urban sewage management still faces a number of challenges which have hindered the achievement of national sanitation objectives.

### KEY FINDINGS

NWSC has made significant strategic efforts to ensure that there is adequate management of sewage in urban areas by, for example, coming up with the Kampala Sanitation Master plan (KSMP); however, through this audit, there are a number of areas that have been identified that still require attention in order to improve sewage management in urban areas.

- Although NWSC had undertaken steps to improve access to sewerage services, access is still low and has not significantly improved over time, access of the total population serviced by NWSC to sewerage services for the years 2011/12 and for 2012/13 was 6.4% and 6.7%, respectively.
- Effluent discharged by NWSC to the environment does not meet the effluent standards for the different parameters as set by NEMA.
- NWSC has for the past three years been discharging effluent to the environment without permission in the form of a valid discharge permit.
- From physical observation the sewage treatment infrastructure, especially the stabilization ponds are poorly maintained, with overgrown bushes and large volumes of sludge build up.
- The existing coordination mechanism between NWSC and other key stakeholders in the sewage management process had not yielded effective levels of coordination.
- NWSC lacked vital operation data and records, for example, daily flow data, volume of effluent discharged to the environment, and records about quality and source of influent.

## KEY RECOMMENDATIONS

- Since access to sewerage services is a key aspect of sewage management, there is need to implement proposed strategies to ensure increased access.
- NWSC should implement measures to enhance the operational efficiency of the treatment infrastructure and ensure that the quality of influent is monitored.
- Management of NWSC should ensure that they obtain valid discharge permits from the Ministry of Water and Environment in a timely manner and comply with the conditions set therein.
- NWSC should expedite the process of procuring better equipment to ensure that all areas of operation carry out satisfactory maintenance and further enhance its monitoring of upcountry areas to ensure that desludging is done on a regular basis.
- NWSC should endeavour to enhance coordination with other key stakeholders to ensure achievement of improved sewage management in the operation areas.
- NWSC should put in place measures to ensure that operational data and data is kept and regularly maintained to facilitate operation and maintenance of infrastructure.

## OVERALL AUDIT CONCLUSION

Although NWSC has undertaken some interventions to increase access to sewerage services, especially within Kampala, there is still need for more interventions, especially in areas outside Kampala. Access of the total population served by NWSC to sewerage services is still low- it stood at 6.7% in 2012/13 and this negatively affects the ability of NWSC to ensure that all the sewage generated is adequately collected and treated. With the current treatment process, NWSC cannot meet some of the quality national standards required for effluent discharged to the environment which poses a threat to both the environment and the humans. Maintenance of the existing waste water treatment infrastructure is still inadequate and this affects the effectiveness of the treatment process of the waste water collected, and the life span of the treatment infrastructure. Without up to date operational data, it becomes difficult and in some cases impossible to evaluate the performance of the infrastructure and identify factors that may compromise the effectiveness of the infrastructure.

NWSC thus needs to expedite on going interventions to further improve sewage management.