



## COLLEGE OF AGRICULTURAL AND ENVIRONMENTAL SCIENCES

### Office of the Principal

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### PRESS RELEASE

#### **Seeta High School reaps big from Makerere University Wastewater management Initiative**

Wastewater management and sewage disposal in general, remains one of the challenges that urban authorities and dwellers are grappling with in Uganda. In many towns, the sewage systems have broken down spilling over dwelling places. In residential areas, the practice of releasing waste in nearby swamps has become the norm. This poses serious environmental and health risks. Schools accommodating big numbers of students have also been victims.

It is against this background that Makerere University in collaboration with University of Dar es Salaam through the BIO-EARN (East African Regional Network for Biotechnology and Bio-Policy) with funding from Sida-Sarec, constructed a wetland to treat wastewater generated by SEETA High School Mukono.

Constructed wetlands are artificial wastewater treatment systems consisting of shallow (usually less than 1 m deep) ponds or channels which are planted with wetland plants. This treatment system relies upon plants, bacteria, biological, physical and chemical processes to treat wastewater. The system has impervious clay or synthetic liners and is engineered to control water direction and retention in the system.

This treatment system is appropriate for institutions in areas which are not connected to central sewerage system. However, adequate land should be available for the construction of the system. The advantage of this system is that it can be designed as an integrated system whereby the effluent from the wetland can be used in agriculture, aquaculture and agro forestry.

Before the construction of the wetland, wastewater from SEETA High School Mukono, was discharged into a malfunctioning septic tank and a partially treated effluent was discharged into the surrounding environment Plate 1. The place was smelly and filthy and one could easily see that the effluent was negatively impacting on the surrounding environment.

The school had already been given warnings by NEMA to treat its wastewater before discharging it into the surrounding environment. To alleviate the problem scientists from Mak (Prof. Frank Kansiime; PI, Dr Charles Niwagaba; Engineer, and Omara, John; Research Assistant) and UDSM constructed a wetland, planted it with papyrus, monitored it and it is now fully functional (Plates 2 and 3).

The School contributed to the retrofitting of the plumbing system and construction of a new septic tank (Plate 4).

Currently the wastewater from the school flows into a septic tank and the effluent from the septic tank is discharged into the Constructed Wetland. In addition to water being of good quality, the treated wetland has attracted a lot of attention from students (they call it one of the wonders at this school) and others schools want this system installed at their schools.

“The management of SEETA high is not only happy with the wastewater treatment system but are also planning to spread this technology to sister campuses” said Prof. Frank Kansiime, the Deputy Principal College of Agricultural and Environmental Sciences (CAES)

The project commenced in 2008. It cost 25, 000 US Dollars. The school contributed 10,000 US Dollars to this.

**For further information about this project contact:**

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