

Sanitation for a girls school in Uganda

Elke Müllegger, Markus Lechner, Stefan Jung

4th World Water Forum, Mexico City 2006



Kalungu Girls Secondary School

- boarding school of the "Sacred Heart Sisters"
- ~400 girls
- Southern Uganda (in Masaka District)



situation before the project

Wastewater

- no wastewater treatment
- groundwater pollution

Human excreta – pit latrines

- Groundwater pollution
- badly smelling, full of flies and in unhygienic conditions
- limited space of the school's compound

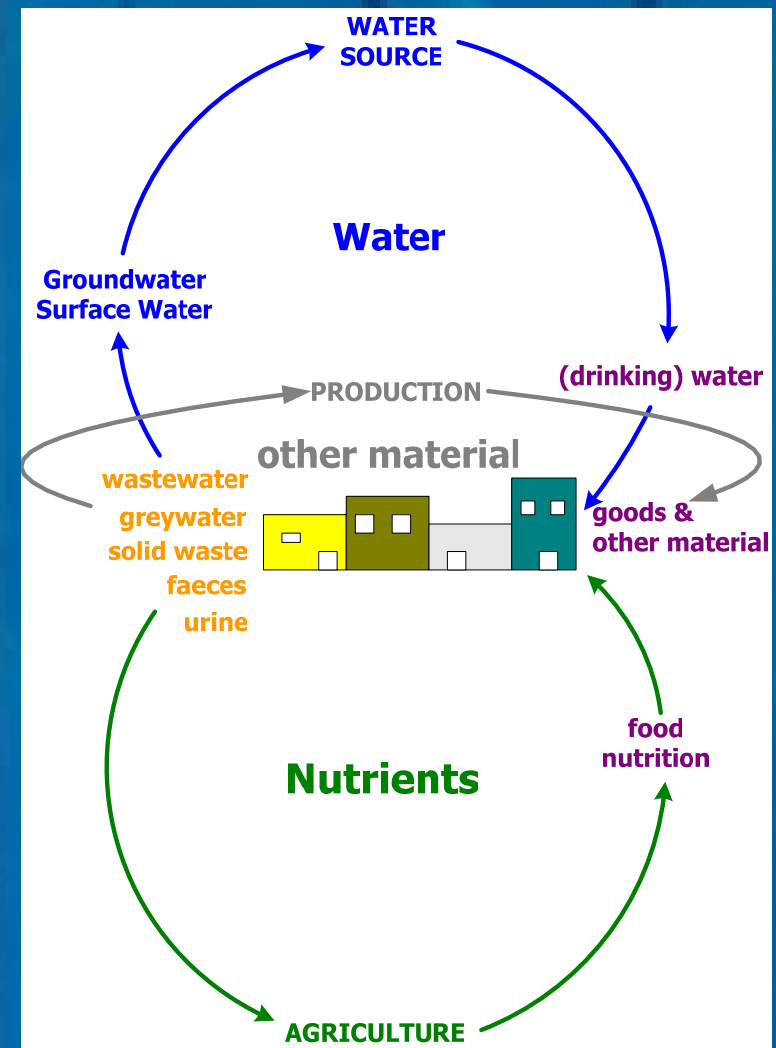


➔ Problems with the water quality and the unsatisfying conditions of toilet facilities caused the administration of the school to ask for support to improve the situation

an innovative approach

Ecological Sanitation concepts

- recover and recycle nutrients and organic matter
- protect the environment – avoid groundwater pollution
- improve the hygienic conditions and promotes health
- separate wastewater sources for a separate collection, treatment and utilisation/recycling
-



project implementation

- Feasibility study 2000; planning, implementation/construction and training 2003; follow-up till end of 2005
- Client: School administration (Sisters of the Sacred Heart)
- Local partners: Kalungu Girls Secondary School, Norman Constructions, local entrepreneurs and artisans

project implementation - the hardware

1. 45 dry urine diverting toilets for the pupils
2. demonstration dry diverting toilet for teachers, staff and visitors of the school
3. horizontal subsurface flow constructed wetland system for wastewater treatment

 Reuse of urine and dried faeces for the school gardens

why urine diverting toilets?

- no water necessary
- no pollution of (ground) water sources
- destruction of pathogenic organisms
- no smell and flies
- can be used indoors
- can be used in congested areas -
(permanent structure)
- recycling of valuable resources









project implementation - the software

1. Participatory planning

- together with the teachers the details of the demonstration unit were developed to create the feeling of ownership and responsibility
- A series of possible designs were presented to the teachers and any decisions (like location of the toilet; sitting or squatting type; urinal for men,...) were discussed among them

2. Training

- of students
- of teachers
- the O&M personal and
- the local technicians

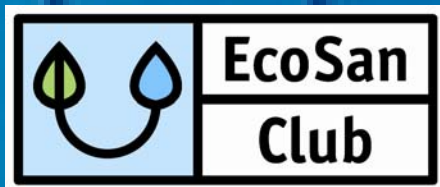


potential of replication

- houses and schools from the “Sisters of the Sacred Heart”
- families of the pupils
- visitors of the school
- delegations from all over the country and abroad
- inhabitants of the nearby villages
- local artisans and entrepreneurs

conclusions

- teachers and pupils are using the same type of toilets and the teaching personal is committed to this new technology
- all stakeholders were involved from the beginning of the project, any design decisions were made by the users
- the presence of the constructors was utilised to sensitise and train teachers and pupils.



EcoSan Club
Vienna, Austria
<http://www.ecosan.at>

