

# UGANDA

## WATER, WASTE & DEVELOPMENT IN SUB-SAHARAN AFRICA

Professor Steven Riley stepped off the plane and generously gave us his afternoon to show some very practical aspects of life in Uganda. He has been regularly donating his expertise in a hands on manner for large and small projects since 1999. His Overseas Aid Contribution is via unsung NGO (non government organization). In 1988 he heard an address by a visiting Bishop – part of an appeal for assistance from Ugandan Christians – and decided to “go and have a look”. There have been several other “looks” since.

The talk was in four parts - Overview, Water, Sewerage, Power.

### OVERVIEW

Uganda’s population is estimated at 24-28 million (11 tribes/11 political parties); 49% younger than 15 years; 90% Christian; 86% rural; average annual income \$300. The 19<sup>th</sup> century explorers Livingstone and Stanley came there to the source of the Nile. In the words of our speaker “Uganda is water rich but water-quality poor”. The magnificent lakes Victoria, Edward and George were obviously named by subsequent British administrators/settlers who apparently were not disadvantaged by hostilities among local tribes. It was explained that Uganda was not a colony but a British Protectorate which before it declared independence in 1962 had acquired excellent infrastructure, established legal and education systems, an OK economy (subsistence farmers, Indian traders, technicians/tradespeople, manufacturing).

A succession of dictators, in particular Amin in the 1970s, destroyed the items listed in the previous sentence, killed all the native animals, forced an out-migration of Indian traders and highly educated/ technically skilled citizens. 40% of national resources goes to the army to “protect against border raids and internal bandits” – granted that there are problems in some of the neighbours (Sudan, Congo, Rwanda, Kenya, Tanzania).

Since 1990 the scourge of AIDS has stopped population growth and lowered life span. We were told of the Church sponsored ABC campaign aimed at husbands with jobs away from rural homes/wives – Abstinence, Be faithful, Condom.

Ordinary Ugandans are resilient and self-sufficient. Houses are built by communal labor from low-cost local materials including Eucalypt timber. Cassava (3 crops per year) and bananas provide basic food. Photos of the Pieda Nebbi district near the Congo border thus subject to raids for food/livestock showed:-

- markets/local roads – each village trading zone is within a 10km radius
- lots of bikes the sole transport mode & restricted to daylight hours (risk of bandits/raiders at night).

Big ticket items for a community are Education, Water Infrastructure, Power and Health.. Primary education is compulsory – teachers have six months training. Shots of St Nicholas school in Kampala slums showed lessons painted on walls including the principal’s office because the school could not afford text books, and pupils in obviously home made uniforms. We were also shown a private high school for children of the wealthy in Nairobi – an illustration of the enormous socio-economic gap in African nations.

## WATER

In some locations water can be purchased from a water carter or tap (more expensive than Sydney's).

Elsewhere it is available for collection from "protected streams". Because testing and experience have proved that none of these waters meet World Health Organisation standards the custom in Uganda is to boil water before consumption. We saw photos:-

- 2x 44 gallon drums boiling water for a village (precious re-afforestation timber for firewood).
- Toilet and shower block upslope from the water supply stream.
- Unprotected spring (no porous concrete wall around it to filter groundwater)
- Car being washed in protected water supply stream
- Unicef donated hand pump which had previously broken down. Because no-one could be found who knew how to repair it water supply had to be obtained from an unprotected stream for four months.
- Steven supervising the construction of a community water storage system by locals wearing thongs with minimal tools/equipment, clambering around a hand bolted scaffolding of eucalyptus trunks!

It is quite common for water management devices to be donated/supplied but the community doesn't know how to install and operate them – that is until Steven turns up from Australia.

Girls routinely stop what they are doing when it rains so they can collect roof water (it's good & clean).

## SEWAGE

Pit toilets are the norm in Uganda.

McKerry University specializing in Tropical Development and Medicine has 7000 fee-paying students who benefit from Steven's establishment of a system based on a 40 year old Australian design. The output provides sludge used to fertilise tree plantings and water recycled to the campus sports fields. We saw Steven showing workers how to use a drill and the ceremonial opening of the sewage treatment plant.

Steven has a continuing relationship in various roles with this university.

## POWER

Uganda has mineral oil deposits but its processing is an "outside" technology – too much trouble and petrol is too expensive. Distillation/processing of vegetative raw materials into bio-diesel is a well known and practiced technology. 10 kilowatt electricity generators and steam engines powered by bio-diesel are the power norm for Ugandan communities. Ethanol is used rarely because the cassava is consumed primarily for food leaving an insufficient surplus for distillation. Native *Jatropha* seed is collected – 3kg yields 1kg of bio-diesel; by-products of vanilla plantations are also distilled.

I ended up listening and looking without writing – too interested in Steven’s final insights and photos so the report ends abruptly. Sincere thanks to Steven for a really fascinating and comprehensive “look” at Uganda and best wishes for his continuing contribution to African Development.

‘Ela Taranto