

**Expert comment**  
**SAM KULOBA, COMMISSIONER  
SECONDARY EDUCATION**

"Schools ought to find ways of minimising energy bills while reducing their carbon footprint by turning organic waste into sources of clean energy that can save the country's forest cover and also minimise on air and water pollution. Bio-latrines, which the pupils use, for instance could also supply cooking energy to the school."



**POLICY/PRACTICE**

ESSENTIALS AND ALTERNATIVE IDEAS

# Rural Masaka schools using biogas, farming to reduce costs

With the economy getting tighter, rural Masaka schools are devising means to stay afloat.

BY MICHAEL J. SSALI  
editorial@ug.nationmedia.com

One of the major drawbacks faced by school managers in Uganda are the high administrative costs such as electricity and fire wood bills, among others. There have always been press reports about some schools closing for holidays before the official Education ministry date or suspending meals due to budgetary constraints.

David Ssemwogerere, the director of Suubi Secondary and Vocational College in Lwengo District, agrees that the cost of living has risen and there are financial constraints in nearly all educational institutions.

"However, as school administrators and proprietors, we have a duty to provide and make education affordable. It is the reason we accept items such as eggs as a form of school fees payment at Suubi. We also train students in farming skills and where possible help them to acquire animals such as pigs and poultry. That way, they can sell eggs, piglets, or some vegetables and fruits to contribute towards their educational costs," he said.

**Exploring alternative energy**  
Ssemwogerere adds that one of the worries for many schools is the high cost of firewood for cooking school meals and electricity for lighting. A big number of education institutions in the country use hydroelectricity yet there are alternative cheaper sources of energy such as solar and biogas.

"We use our school pit latrine to produce biogas for lighting and cooking," he says adding that latrines which are common in many schools and homes in Uganda can be a good source of clean energy for both lighting and cooking.

### Grooming students

The head teacher of Suubi Secondary and Vocational College, Robert Walugembe, revealed that they use biogas to train students to be conscious of cheaper and readily available sources of energy in nearly all rural areas in Uganda.

"Once they have seen that it is possible to use biogas from their latrines for lighting and cooking here at the school, they will be less likely to depend on firewood for their cooking needs at home," he said. "We also expect that they will not cling to paraffin both for cooking and lighting."



One of the biogas cook stoves at Suubi Secondary and Vocational College. Biogas helps reduce costs of expenditure on fuel and lighting at the school. PHOTO BY MICHAEL J. SSALI

### GIVING SKILLS TRAINING

Aside from classwork students at Suubi are given skills such as tailoring, weaving, carpentry and welding, among others. "They make school uniforms and the sweaters and for every item a student earns a fraction of the profit obtained after it has been sold going towards payment of their tuition fees. For example, we recently put up a dormitory and our students did most of the practical work - making the doors and windows," David Ssemwogerere, the director of Suubi Secondary and Vocational College, said.

In cases where schools are not yet in position to use biogas for cooking, Ssemwogerere advises that they should construct fuel saving cook stoves that minimise charcoal and firewood consumption.

### Enhancing farming

"We have more than 200 goats as a source of income to cushion us against sudden financial needs. We sell their droppings to farmers in the local community but we also use some of it as manure to grow vegetables in the school garden. These are all agricultural skills that our students can pick for future use in their homes," Ssemwogerere says.

Jennifer Nassozzi, a resident in Kalegero village said, "Suubi is helping parents to acquire new knowledge because we actually share the practical agricultural skills

that our children get at the school ultimately help us to pay school fees to meet other costs." With the skills taught, coupled with the support in place to reduce spending, schools can avoid spending panic-free academic years.

# 200

**THE NUMBER OF GOATS  
COLLEGE KEEPS TO  
THE SCHOOL AGAINST  
UNFORESEEN EXPENSES**

### Making the biogas

According to Wikipedia, biogas is produced by the breakdown of organic matter in the absence of oxygen. It can be produced from raw materials such as agricultural waste, animal dung, sewage,

and rotting plant material. The waste is placed in a container with pipes that leads the gas which is then used - to the kitchen for cooking and to the lamps for lighting. A bio digester should be installed by a qualified person. If it is poorly installed it can cause explosions and house fires.

S  
re time  
e child  
three  
it until  
school  
saving  
of fees  
  
event  
ne par-  
terminal  
them  
perhaps  
or not  
where  
  
insure  
rest  
Plan  
good  
have  
dians  
fees  
ilities  
ality  
sive  
our  
ast  
of  
link