Capacity development for ecological sanitation in schools!

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Capacity development for the younger generation!

Teaching school children about sanitation - how to build simple toilets, make simple hand washing devices etc and how to grow healthy vegetables and trees adds an exciting new dimension to sanitation promotion.
Schools Sanitation Programme

New knowledge and skills are introduced in the most practical way to a generation who can use them with considerable benefit being gained. Teachers to, as well as surrounding communities gain special skills which improve sanitary provision, hygiene and food production.
Schools Sanitation Programme

An introductory lecture using a flip chart and models also includes a lesson on how to make simple hand washing devices. Hand washing devices should be fitted to every toilet if health improvement is expected.
Simple toilet construction (Arborloo)

School children can be taught how to make concrete slabs and ring beams and also toilet houses made of traditional materials and also bricks.

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Here an Arborloo is being built
Simple toilet construction. (Arborloo)

Digging the shallow pit inside the concrete “ring beam” which has been cast on the ground. The “ring beam” helps to stabilise the pit. Then the slab is added on top! Ring beams are used where the pit is shallow (down to 1.5m) and the soil moderately firm.
Simple toilet construction.
(Arborloo)

Finishing off - make the toilet house, add the roof and hand washer – job done!
The children are proud – so are their parents!
**Brick toilet construction.**

School children can also be taught how to build brick toilets.

Dig the hole. Line the pit with bricks using a “corbelling” technique where the top is narrower than the bottom. Fit the slab. Pits of larger capacity can be built this way! Then build a brick house!
Brick toilet construction. School children have been taught how to make several designs of brick toilet. Some with doors and some without doors. The method is valuable to all, both boys and girls and teachers!
Brick toilet construction. (special design)

A special toilet has been designed for ease of construction in bricks. Here pupils who are more skilled teach those with less skill. A great achievement for school children.
Garden experiments

The usefulness of urine and compost can be taught in school gardens. The knowledge gained can then be passed on to the teachers and communities. In this case small (1 metre diameter) “ring beam gardens” are used for trials!
Garden experiments with urine

Diluted urine is applied to some small gardens and not to others so that comparisons can be made.

Treatment per ring beam is about 3 litres of 3:1 water and urine, 3X per week + watering.

All ring beams are watered regularly.
Quick results!

Garden experiments with urine on poor soil

After a month the influence of urine treatment can be clearly seen for rape (X7), spinach (X4) and maize!

Upper photos untreated, lower photos urine treated.
Garden experiments

Recording the results - taking measurements!

Many types of food plant can be tested in this way!
Maize trials

Later a series of maize trials was conducted using urine.

Some rows of maize were fed diluted urine and others water only.

Huge differences were recorded!
Maize trials

Each maize cob was measured in 3 experiments carried out in the garden.

Huge differences were recorded!
Other plants - Spinach
The application of diluted urine on spinach (2 litre in 10 litres of water - twice a week) enhanced the growth far more than commercial fertilisers in this experiment.
Open Day

A special day was set aside to show the community including parents, community leaders, officials, headmasters and even politicians the project. It was very successful. Hundreds of people witnessed the effect of urine on maize and other plants!
This schools project has taught us that the school is an ideal place for teaching new methods and promoting new ideas!

Seeing is believing

People can believe what they can see

IN PRACTICE