

MINISTRY of EDUCATION



REPUBLIC of KENYA

Primary School Design

**School Infrastructure Management Unit
2010**

Water, Sanitation and Hygiene Promotion on the School Compound and the National School Health Policy 2009

The Ministry of Education collaborating with the Ministry of Public Health and Sanitation have developed a 'National School Health Policy'. Section 4.4 Water, Sanitation and Hygiene of this document states the following:

A healthy and hygienic school environment is actualised by safe, adequate water supply, adequate sanitation and appropriate hygiene promotion. The health benefits of safe and adequate water, improved hygiene are broad in scope, ranging in reductions in diarrhoea, intestinal worms, ecto-parasites, infections and trachoma, to enhanced psycho-social well-being afforded via such factors as the dignity that goes with the using of a clean toilet/latrine.

The following measures shall be undertaken::

- School Management Teams and parents shall be encouraged and empowered to provide adequate ablution facilities for boys and girls as prescribed in the School Health Rules and Regulations, "Building Code" and Public Health Act.
- Ablution facilities shall be designed and constructed to different age groups and special needs;
- Hand-washing facilities including soap shall be provided in each school and located within the vicinity of the toilet/latrine;
- Adequate, safe drinking water points/fountains shall be available in each school;
- School Management Teams shall provide sufficient and strategically located litter bins, garbage disposal pits, incinerators and ensure proper management of liquid wastes;
- Where the school has a kitchen, appropriate food safety measures and adequate waste disposal shall be ensured;
- Standards for toilets/latrines and all other sanitation facilities shall be regularly reviewed and updated;
- Care shall be taken to ensure that the toilet/latrine standards are relevant to the differing geographic conditions in the country and that they are sensitive to the varying category of users needs;
- Effective monitoring shall be in-built in each school, zone and district;
- Key to the monitoring will be to ensure that each ablution and sanitation facilities are used consistently by the pupils and that they are well maintained, and that hygiene promotion is on-going;
- Hygiene promotion will be pupil centered and be an ongoing process whose spill-over effect from the schools will positively influence behavioural change;
- Learners and other school community members suffering from hygiene-related conditions jiggers or lice infestations, ringworm etc shall access treatment without discrimination or ridicule;
- School Management and stakeholders shall ensure that the environment around the school remains healthy;
- Resource mobilisation mechanisms and budget line for construction, operations and maintenance of sanitation and hygiene shall be strengthened; and
- District Education Office and key partners will be equipped to support and provide guidance on good management, monitoring and evaluation.

Special Note: To assist the School Management Team to determine exactly how many hygiene promotion facilities the school's enrolment will require MoE has prepared the following minimum guidelines:

Water Provision or Storage:

- Day School = 5 litres per pupil per day; and
- Boarding School = 15 litres per pupil per day.

Toilets/Latrines

- One cubicle for every 25 girl pupils, these to be supported with special bathing cubicles;
- One cubicle for every 35 boy pupils with a supplementary one metre of urinal walling for every 50 boys;
- One special needs cubicle for each gender of pupils to cater for the physically challenged;
- Adequate toilet cubicles for each gender of teaching staff; and
- One toilet cubicle for each gender of support staff.

Hand Washing Facilities

Each set of toilet cubicles require a minimum of one hand washing facility either built into the toilet/latrine block or be provided through a stand alone facility.

This manual contains a series of design options with schedules of materials for the above facilities. Every School Management Team is expected to make full use of the concepts included but these design options are not prescriptive. School Management Teams can make use of toilet/latrine cubicle layouts in any amount of numbers or form of configuration that they prefer. But which ever design option is used the finishing of the walls and floor slabs must be easily cleaned to ensure a healthy hygienic environment.

Section One

Girls Latrine Designs

Points to Consider When Planning to Construct School Based Latrines for Girls

On every school compound there should be one special toilet cubicle for the physically challenged girls, therefore the latrine block design in drawing number **PS/PLG/01** should be the first priority for all schools. After the school has developed such a pit latrine block they can then use any of the other design layouts presented in this book to provide sufficient toilet cubicles for the overall school girl's enrolment.

Location

1: The pit latrines should be located at an easily accessible distance from the classrooms and not in the farthest corner of the school compound. This will make it easy for the pupils to save time and energy when visiting the latrines especially during rainy seasons. They should also be visible from the main school to ensure the safety of the pupils.

2: Separation of the girl's and boy's latrines should be ensured by using the most convenient and economical methods e.g. distance, orientation and when necessary a screen wall on compounds where space is limited (See Drawing No. **PS/PLSL/01**). This example will not only save on the cost of drainage by using joint soak pits but also on the paving of the path required to ease access for the physically challenged pupils as well as the sharing of the hand washing facility.

3: The latrines should be located at a distance that will deter any foul smells permeating into the classrooms. For this same reason it is also necessary to consider the general wind direction when deciding on the locations for new latrine blocks. **A minimum of 10 metres is recommended.**

4: Likewise, it is necessary for the school Management Team to give careful consideration to neighbors comfort when locating pit latrines and soak pits.

5: On sloping school compounds the soak pits should be located down the slope away from the pit latrines so as to avoid any seepage of water in to the pit. Do not place soak pits against or **nearer than 5 metres to any other building.**

6: Toilet facilities should not be constructed closer than **30 metres to any source of water supply** i.e Tube well, open well or spring etc.

7: Avoid constructing toilet facilities too close to stands of large trees as the root systems could do damage to the pit and foundations.

General Finishing

8: To ensure cost-effectiveness and value for money the school should avoid technically complex designs for their pit latrines and this will also avoid the need for a lot of technical supervision.

9: All cubicle floors and lower walls should have a smooth finish as this will enable the cubicles to be easily cleaned. **However, if the floor finish is extremely smooth there is the risk of injury as smooth cement floors become very slippery when they are wet.**

10: The Bathroom cubicle floor in the girls latrine block should be laid to fall towards the floor trap located in the corner so as to keep it dry after use and avoid stagnant water which may result in the cubicle not being used and becoming a breeding ground for mosquitoes.

11: To avoid flooding of the pits all finished floor levels **should be at a minimum of 150mm above ground level.**

12: To protect the doors from decaying due to being in constant contact with water all the latrine and bathroom cubicle doors **should be finished at a minimum of 30mm from the finished floor level**

13: The urinal trough which must be laid to fall towards the floor trap should be regularly washed with soapy water or disinfectant so as to reduce urine smells and hence promoting concepts of hygiene.

14: The layout of the pit latrine drainage soak pits as shown in the drawings are just guidelines. Different school compounds will require differing drainage layouts depending on the compounds gradients and soil types etc. But whatever the layout no soak-pit should be located closer than **30 metres to any source of water supply** i.e. Tube well, open well or spring etc.

12: There should be a suitably inclined access ramp to the physically challenged pupils' latrines. When possible these special cubicles should also be connected to the classroom blocks with a paved access path.

Section Two

Boys Latrine Designs

Points to Consider When Planning to Construct School Based Latrines for Boys

On every school compound there should be one special toilet cubicle for the physically challenged boys, therefore the latrine block design in drawing number **PS/PLB/01** should be the first priority for all schools. After the school has developed such a pit latrine block they can then use any of the other design layouts presented in this book to provide sufficient toilet cubicles and urinals for the overall school boys enrolment.

Location

1: The pit latrines should be located at an easily accessible distance from the classrooms and not in the farthest corner of the school compound. This will make it easy for the pupils to save time and energy when visiting the latrines especially during rainy seasons. Latrines should also be visible from the main school to ensure the safety of the pupils.

2: Separation of the girl's and boy's latrines should be ensured by using the most convenient and economical methods e.g. distance, orientation and when necessary a screen wall on compounds where space is limited (See Drawing No. **PS/PLSL/01**). This example will not only save on the cost of drainage by using joint soak pits but also on the paving of the path required to ease access for the physically challenged pupils as well as the sharing of the hand washing facility.

3: The latrines should be located at a distance that will deter any foul smells permeating into the classrooms. For this same reason it is also necessary to consider the general wind direction when deciding on the locations for new latrine blocks. **A minimum distance of 10 metres is recommended.**

4: Likewise, it is necessary for the school Management Team to give careful consideration to neighbors comfort when locating pit latrines and soak pits.

5: On sloping school compounds the soak pits should be located down the slope away from the pit latrines so as to avoid any seepage of water in to the pit. **Do not place soak pits against or nearer than 5 metres to any other building.**

6: Toilet facilities should not be constructed closer than **30 metres to any source of water supply** i.e Tube well, open well or spring etc.

7: Avoid constructing toilet facilities too close to stands of large trees as the root systems could do damage to the pit and foundations.

General Finishing

8: To ensure cost-effectiveness and value for money the school should avoid technically complex designs for their toilet facilities and this will also avoid the need for a lot of technical supervision.

9: All cubicle floors and lower walls should have a smooth finish as this will enable the cubicles to be easily cleaned. **However, if the floor finish is extremely smooth there is the risk of injury as smooth cement floors become very slippery when they are wet.**

10: To avoid flooding of the pits all **finished floor levels should be at a minimum of 150mm above the surrounding ground level.**

11: To protect the doors from decaying due to being in constant contact with water all the latrine cubicle doors **should be finished at a minimum of 30mm from the finished floor level.**

12: All urinal troughs must be laid to fall towards the floor trap and should be regularly washed with soapy water or disinfectant so as to reduce urine smells and hence promoting concepts of hygiene.

13: The layout of the pit latrine drainage soak pits as shown in the drawings are just guidelines. Different school compounds will require differing drainage layouts depending on the compounds gradients and soil types etc . But what ever the layout no soak-pit should be located closer than **30 metres to any source of water supply** i.e. Tube well, open well or spring etc.

14: There should be a suitably inclined access ramp to the physically challenged pupils' latrines. When possible these special cubicles should also be connected to the classroom blocks with a paved access path.

Section Three

Physically Challenged Latrine Designs