School Sanitation & Hygiene Education

Situation analysis in the Maldives

Maldives Water and Sanitation Authority

in consultation with the Ministry of Education and UNICEF
Introducing School Sanitation and Hygiene Education

School sanitation and hygiene aims at providing a healthy learning environment – one that instills and supports safe hygiene behaviors in students and whose facilities block the transmission of water and sanitation related diseases.

Two components

1. Hardware - the total package of sanitary conditions and facilities available in and around the school compound – including water supplies, toilet and hand washing facilities, soap and maintenance programs.

2. Software - the activities aiming to promote conditions and practices of staff and children that help to prevent water and sanitation related diseases.
Need for School Sanitation and Hygiene Education in the Maldives

Helminthes infect an estimated 50-75% of students. Diarrhea morbidity remains a persistent problem.

The infections and other sanitation related diseases can be spread in schools due to facilities and behaviors.

The diseases cause poor health and lead to, or reinforce, malnutrition.

Poor health and malnutrition are important underlying factors for low school enrollment, high absenteeism, and poor classroom performance.

(Figures from Maldives Health Report 2001)
Objectives of the Situation Analysis

1. Assess the current hygiene and sanitation standards of schools in Male’ and atolls.

2. Identify areas in which hygiene education related activities would be most needed and effective.
Methodology Used

1. Field Observations and indicator monitoring in schools of one atoll in each of the five regions by MWSA and the Ministry of Education.

   - *In total 46 schools between April and August 2002 were studied in Lhaviyani, Haa Dhaal, Seenu, Vaavu Atolls and Male’*

2. Random representative data collection from 30% of all schools and associated family health workers using a self-completing questionnaire.

   - *86 schools and 63 family health workers responded*

3. Review of existing SSHE at national level through meetings and documentation review.
Limitations of method used

Self-completing questionnaire were used due to time and practical restrictions.

Many of the discussions were held with the need for translation.

Observations of child behavior practices were limited to those noted during the field observations. More detailed study would require longer time periods with the students.
At the School and Community Level

- Hardware

The basic facilities assumed for a school were

- Provision of safe adequate drinking water supply,
- Toilets with water supplied,
- Hand washing facilities with soap
- Maintenance program to ensure they continue working.
Potable Drinking Water Supply

- Availability

Status of Rainwater Supplies - Island Schools

- Have water and adequate storage capacity: 36%
- Have water but expected shortages during the year: 22%
- No rainwater tanks: 9%
- Rainwater tanks were empty - too small: 13%
- No water - tanks disconnected: 20%
Number of Days island schools can provide 0.5 L Rainwater / Day / Student without rainfall.

<table>
<thead>
<tr>
<th>Number of Days</th>
<th>Number of Schools</th>
</tr>
</thead>
<tbody>
<tr>
<td>Less than 5 days</td>
<td>6%</td>
</tr>
<tr>
<td>5 to 10 days</td>
<td>6%</td>
</tr>
<tr>
<td>11 to 20 days</td>
<td>29%</td>
</tr>
<tr>
<td>21 to 40 days</td>
<td>27%</td>
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<tr>
<td>41 to 60 days</td>
<td>15%</td>
</tr>
<tr>
<td>61 to 100 days</td>
<td>8%</td>
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<tr>
<td>up to 150 days</td>
<td>3%</td>
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</tbody>
</table>

Based on questionnaire data of existing storage capacity for 66 schools in all regions excluding Male'.
Drinking Water Quality

- Only two schools in Male’ used rainwater tanks for drinking water for the students.

- Both failed WHO Standards for Drinking Water Quality by having bacteriological contamination.
  - Attributed to poor collection practices.

- No school treated their drinking water be either boiling or chlorinated.

School Sanitation & Hygiene Education
Chart 4
Alternate Drinking Water Supplies used by Schools

- Recommend students bring bottles from home 36%
- Transport from outside school and distribute from large containers 36%
- Supply untreated wellwater 27%

School Sanitation & Hygiene Education MWSA 2002
Summary of Questionnaire Responses from 86 Schools in the Five Regions – Ground Water

Location of the septic tanks serving the 71 schools not connected to sewers. (Septic tanks are recommended to be located at least 15 meters from the nearest well to prevent contamination)

- 44% are within 4 - 9 meters of the well
- 52% are more than 10 meters of the well
- 4% are within 3 meters of the well.

- No school de-sludge's their tanks every 5 years as recommended, they only undertake maintenance if they experience problems
## Sanitation Facilities - Availability

<table>
<thead>
<tr>
<th>Ratio of toilets/students/sessions</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Less than 20 Students per toilet</td>
<td>20%</td>
</tr>
<tr>
<td>21 to 30 students per toilet</td>
<td>15%</td>
</tr>
<tr>
<td>31 to 50 students per toilet</td>
<td>30%</td>
</tr>
<tr>
<td>51 to 75 students per toilet</td>
<td>21%</td>
</tr>
<tr>
<td>76 to 100 students per toilet</td>
<td>8%</td>
</tr>
<tr>
<td>More than 100 students per toilet</td>
<td>6%</td>
</tr>
</tbody>
</table>
Handwashing Facilities

Handwashing Facilities in Schools
(Field Observations of 46 Schools)

- Handwashing basins or taps: 39%
- Wells only available: 21%
- No Facilities: 29%
- Facilities present but broken: 11%
Provision of Soap

- Soap was only found in 1 of the 46 schools.
- Commonly arrangements and funding did not exist for it
- Contrasted with the questionnaire responses that indicated 41% of schools provided it.

Lack of soap means that in only 2% of the schools could children wash their hands properly.

Lack of appropriate facilities means that in only 39% of schools would children be able to wash their hands if soap was provided.
Indicator to monitor safe hygiene practices

Hand washing as an indirect indicator to monitor safe hygiene practices
A child of about 9 years being able to demonstrate how to wash hands correctly at school is an indicator of the prevalence of safe hygiene practices.

Criteria: He/she uses sufficient water, rubs both hands at least 3 times vigorously, rinses, and uses a friction agent such as soap. Materials are easily available and do not have to be collected from different places.

Out of three children asked in different classes at least 2 will demonstrate correctly.

When applied during the field observations — only one school indicated safe hygiene practices.
The issue of maintenance was a priority for schools. In almost all schools the shortage/absence of laborers was identified as a major constraint to cleaning and maintaining facilities. A third of the toilet areas were considered unsatisfactorily dirty. Maintenance of varying degrees was required in the majority of facilities, with the exception of the newly built ones. Hand washing areas were the least maintained.

School Sanitation & Hygiene Education
Hygiene education is defined as all activities aimed at encouraging behaviors and conditions that help to prevent water and sanitation related diseases (IRC 1991).

In this context it is taken to include activities such as:
- increasing the use of toilet facilities,
- encouragement to look after facilities
- hand washing with soap at the critical times
- safe collection and storage of drinking water
- personal hygiene.

It applies not only to the students, but the staff including teachers, laborers, toilet attendants and health assistants and PTA’s.
Hygiene Education as part of a School Health Programme

1. Messages delivered by resource persons to classes or assemblies commonly based on information leaflets.

2. Messages from teachers / focal health points to classes.

3. Personal hygiene checks of students by staff or prefects.
Effectiveness

Where present, was applied with a very narrow definition, was message based focusing on hygiene checks of nails and hair.

Due to the informal nature, it existed only on the initiative of the school or FHW with no form of evaluation.

No training is given to management, teachers, health assistants, supervisors, laborers in hygiene education or concerning water and sanitation.

Limited to students, it is not included in existing job roles such as toilet attendants.

A message on hand washing at assembly is not effective to a student without access to soap and whose facilities may not be clean, existing, accessible or working.

*Hygiene education is most effective when it is practical, uses a life skills based approach, and is accompanied by supporting facilities and activities in the community.*
Questionnaire response from 63 Family Health Workers – Health Educational Activities

• How regularly do you visit your nearest school each year to provide information/conduct activities regarding health or hygiene?
  
  15 visited between 1 to 3 times per year
  6 visited between 4 to 6 times per year
  1 visited up to 10 times
  2 visited monthly
  24 remaining do not visit, only on special occasions or did not answer this question.
Identified Health Concerns

1. Absence of improved hand washing.

2. Inadequate supplies of safe drinking water – both quantity and quality.

3. Facilities that do not encourage hygienic behaviors.
Absence of Improved Handwashing

- Students are unable to wash hands at the critical times, after defecation and before handling food or eating.
- They are not able to wash their hands correctly, with soap and adequate water.
- They are learning and practicing unsafe hygiene behaviors.

All of which result in placing the students health at risk from diarrhea diseases and helminthes infections.

Studies of Hand washing show a positive relationship between hand washing with soap and diarrhea prevention.

In Bangladesh soap distribution with hygiene education reduced childhood diarrhea by 33%, in Malawi soap distribution alone reduced diarrhea by 27% (Hutley et al. 1997).
Incorporating Hygiene Education

At a Community Level
1. By formalizing the existing hygiene activities of the School Health Program utilizing the trained focal health points/health assistants.
2. By strengthening the ability of Family Health Workers to deliver effective hygiene education as part of their existing activities.
3. Incorporated into existing job roles in schools.

At a National Level
4. As part of a revised curriculum. Teachers could be utilized and supported to deliver practical components of the subjects relevant to hygiene and sanitation.
5. As a coordinated approach by the Ministry of Health and Ministry of Education under a National Hygiene Initiative
Prioritizing Interventions

Significant disparities exist amongst the older community, private and Preschools outside Male’.

The emphasis should be not on merely providing new facilities but on improving the use of existing ones.

Interventions should prioritize those that ensure a maximum benefit to health, specifically –

- Provision of soap across all schools.
- Provide/upgrade hand washing facilities in all schools where they are lacking.
- Provide/ maintain rainwater tanks adequate for all schools to meet the minimal registration requirements.
- Eliminate the practice of providing untreated drinking water from unsafe sources eg wells
- Making hygiene education activities and curriculum more effective.
Recommendations

1. Commit at a National development level to establish and implement a School Sanitation and Hygiene Education program. Which will encompass
   A) Provision of water, sanitation and hand washing facilities.
   B) Establish and implement policies to address identified water, sanitation and hygiene issues.
   C) Adequate training and supervision for all concerned staff.

2. Develop a National Hygiene Strategy to formalize hygiene education and implement hand washing initiatives.

3. Revise curriculum for Environmental Studies to incorporate Hygiene Education.

4. Strengthen the “Healthy School Environment” component of the School Health Programme.

5. Improve the capacity of Family Health Workers to deliver hygiene education and promote improved hand washing within their community through support, training and evaluating.

6. Develop Design and Construction Guidelines for child friendly facilities relevant to both new facilities and upgrading of existing.
Thank you!