Towards a Healthy School Environment - Sanitation in Rural Schools

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Conventional rural school sanitation

Common sanitation technology: Pit latrines
Separate toilets for boys and girls
Schools with pit latrines
„Are you satisfied with the school toilet?“

In Eastern Europe and the Caucasus

Girls
- very satisfied
- satisfied
- neither satisfied nor dissatisfied
- dissatisfied
- very dissatisfied

Boys
- very satisfied
- satisfied
- neither satisfied nor dissatisfied
- dissatisfied
- very dissatisfied

In Central Asia

Girls
- very satisfied
- satisfied
- neither satisfied nor dissatisfied
- dissatisfied
- very dissatisfied

Boys
- very satisfied
- satisfied
- neither satisfied nor dissatisfied
- dissatisfied
- very dissatisfied

Safe Water and Sustainable Sanitation for All
www.wecf.eu
Questionnaire – about MHM

“Do you skip school during menstruation?”

50% of the girls reply that they skip school during menstruation.
No differences between EEC and CA.

“For what reason do you skip school during menstruation?”

The major reason for skipping school is “pain”
Followed by “lack of privacy”
“lack of a washing facility”
“problems in obtaining hygienic material”
“inconvenience of toilet”
Ecological rural school sanitation

Ecological sanitation technology: Urine Diverting Dry Toilets (Ecosan)
Separate toilets for boys and girls
Ecosan / UDDT Scheme

Advantages:
- No water for flushing needed
- Can be built indoor
- Hygienic and smellfree if properly operated
- No groundwater pollution
- Nutrients are kept and re-used
First indoor ecosan indoor toilet in Armenia

Squatting toilet with urine diversion

Waterless urinals at different heights

Urine storage tanks in the basement

Wash basins and the toilet care-taker

Built by AWHHW and TUHH  www.wecf.eu
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Schools with ecosan toilets
„Are you satisfied with the school toilet?“
How do secondary school pupils in the EECCA region accept rural school toilets, what are the perceived differences between ecological and conventional sanitation systems?

Good acceptance of school toilets can be translated into sanitation conditions providing comfort, odor, cleanliness and privacy. Pupils do not care of the technology but like that it can be placed inside, attached or close to the building. If the operation and maintenance are not functioning, it is a problem.

*On pit latrines:*

Very unhygienic conditions and behavior in some places. Especially girls avoid using the pit latrines. In all countries some girls use latrines during classes to have more privacy.
Moldova: National code for construction and operation of ecosan toilets

More than 55 school toilets with UDDT in operation
Conclusions for Moldova

• Ecosan toilets have been changing radically approaches on rural sanitation in Moldova in the past 10 years. In many rural areas sewerage is simply not feasible due to lack of reliable water supply or because investment and operation costs are not affordable.

• Construction and maintenance norms are necessary to ensure sustainability.

• Example of Moldova demonstrates that it is possible to change views, life skills and improve hygiene and health.

According to Ion Salaru, Center of Public Health, Moldova
Thank you

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Overview countries

Geographical Region:
Moldova, Ukraine: Eastern Europe
Armenia, Georgia: Caucasus
Kyrgyzstan, Tajikistan: Central Asia
Research questions

How do secondary school pupils in the EECCA region accept rural school toilets, what are the perceived differences between ecological and conventional sanitation systems?

Are there relevant differences between the three sub-regions, Eastern Europe, the Caucasus and Central Asia, and between boys and girls?

Is there a relation between the two types of sanitation system and fluid intake at school?

What is impact of school sanitation on absenteeism of girls in puberty?
**Study Methodology**

*No of pupils and availability of toilets/urinals in the selected rural ecosan and reference schools*

<table>
<thead>
<tr>
<th></th>
<th>Ecosan school (10 schools)</th>
<th>Reference school (8 schools)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>No of pupils</strong></td>
<td>262</td>
<td>325</td>
</tr>
<tr>
<td><strong>Average</strong></td>
<td>36 – 490</td>
<td>196 - 449</td>
</tr>
<tr>
<td><strong>Min-Max</strong></td>
<td>36 – 490</td>
<td>196 - 449</td>
</tr>
<tr>
<td><strong>No of boys per toilet/urinal</strong></td>
<td>27 8 – 43</td>
<td>36 23 – 110</td>
</tr>
<tr>
<td><strong>No of girls per toilet</strong></td>
<td>43 4 – 100</td>
<td>37 25 – 115</td>
</tr>
<tr>
<td><strong>Average</strong></td>
<td>27 8 – 43</td>
<td>36 23 – 110</td>
</tr>
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<td><strong>Min-Max</strong></td>
<td>8 – 43</td>
<td>25 – 115</td>
</tr>
</tbody>
</table>
## Study Methodology

**overview of the study population and methods**

<table>
<thead>
<tr>
<th>Method</th>
<th>No. of schools</th>
<th>No. of pupils per school</th>
<th>Total no. of pupils</th>
<th>Statistical Assessment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Official absenteeism records</td>
<td>5</td>
<td>72-108 (50% girls)</td>
<td>931</td>
<td>two-tailed Mann-Whitney U tests</td>
</tr>
<tr>
<td>Questionnaire</td>
<td>10</td>
<td>at least 15 of each girls and boys</td>
<td>636</td>
<td>Chi-squared test</td>
</tr>
<tr>
<td>Focus group discussion</td>
<td>10</td>
<td>at least 6-10 of each boys and girls</td>
<td>145</td>
<td>Qualitative Data</td>
</tr>
</tbody>
</table>
Monthly absenteeism rate distributions by year and type of school

Boys miss schools in general more often than girls

Small but significant decrease in absenteeism in case of ecosan
Questionnaire

4 questions related to satisfaction
6 questions related to toilet use
2 questions related to drinking at school
2 questions related to skipping school
2 questions related to MHM
Questionnaire – about drinking at school

„Do you drink at school?“

No difference between boys and girls
Is there a relation between the two types of sanitation system and fluid intake at school?

Not always a direct relation between drinking at school and the sanitation situation as other factors are overlapping.

However in CA, the results suggest evidence that non-accepted school toilets lead to less fluid intake.