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WATER, SANITATION AND HYGIENE:
SUSTAINABLE DEVELOPMENT AND MULTISECTORAL APPROACHES

Impact assessment in schools: Impact of WASH provision in teaching-learning process, Benishangul Gumuz, Assosa Zone, Menge Woreda

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Most of schools in Menge woreda had no safe water supply for the school community. To address this problem, WaterAid Ethiopia constructed water supply schemes and sanitation facilities in the schools' vicinity. To assess the impact of facilities on the teaching-learning process, data was collected for five months that is the study period (from 01 Nov. 07 to 31 March 08) using questionnaires. The study found that the major reason for absence or tardiness is the sum result of household workloads, such as fetching water; followed by lack of hygiene awareness and resulting health problems. Majority of health problems are due to WASH-related diseases. Yet, the students' reasons for poor hygiene are not related to a lack of awareness. Recommendations are provided for action. These include establishing effective school sanitation clubs, raising parent awareness through education, strengthening sector collaboration and advocacy on relationship between education and WASH.

Introduction

Most of schools in Menge Woreda do not have access to safe water and do not have gender friendly latrines. Lack of facilities was a major cause of time wastage during the school day and compromised the teaching-learning process. The WAE-BG Project tried to address these problems by constructing seven water points, with tankers and faucets, near schools. Ten schools were also provided with gender friendly latrines and hand washing facilities. Additionally, school sanitation clubs were established for awareness-raising.

Impacts of provision of these facilities had yet to be monitored. There was ***no evidence*** of facilities' positive impact, or lack thereof, on the teaching-learning process. Thus, the impacts of provision of WASH facilities in the teaching learning process were monitored for five months. Structured questionnaires were prepared and given to the students and teachers. Absent and drop out students rates were requested and teachers were asked to identify changes in students after the provision of facilities.

This report is the first in its type. It is aimed to assess major areas that should be investigated in linking WASH and education sectors and assessing the impacts of WASH provision in schools. To this end, all concerned bodies will be informed about the impacts of the provision of WASH facilities in the teaching-learning process.

This impact assessment research is a follow up initiative by WaterAid-BG after external evaluation of WA-BG Project (G. Joy & A. Seid 2005) that recommends a system to measure an impact of projects and joint research conducted on Sanitation Provision in Benishangul Gumuz Region Schools: Girls and Women's Experiences by UNICEF and WAE. This two-month study assessed all dimensions of water supply, hygiene and sanitation in 32 sampled BGRS schools, with focus on the experiences of girls and women, in order to arrive at recommendations for improvements based on showing and further studying the impact of water supply, sanitation and hygiene on facilitated teaching learning process (N. Marilyn & T. Shibabaw May 2005 PP: 1).

Methodology

Phase: 1

Workshop was conducted to examine the major impacts of WASH provisions in schools for the teaching-learning process.

Phase: 2

- **First:** Collecting data from students
- **Second:** Collecting data from teachers. This part also tried to examine the impact on teachers of WASH related diseases.
- **Third:** Covers qualitative data types. In order to avoid subjective views, students were divided into groups of five with a data collector.
- **Forth:** Concentrates on a model class. In order to facilitate this task, model classes from the 4^{th}, 7^{th} and 9^{th} grades, were chosen in each of the three schools.

Objectives

- Assessing impacts that can be generated from providing WASH facilities in schools, especially in the teaching – learning process,
- Producing quantified data for major impacts and using them in advocating for strengthening MOU signed among different sectors,
- Assessing positive impacts of projects trials of providing hardware and establishing school sanitation clubs.

Limitations

- Due to security problems, it was terminated before the planned period, three months before the schedule.
- Data collectors were teachers who can have problems identifying WASH related diseases.
- Sample size was small and may not be representative.

Key findings

Malo first-cycle

This is first cycle school; it has 226 students.

The result revealed that the major cause of absences or tardiness is ***keeping houses and taking care of children***, accounting for ***28%*** of the cases. There was more of an impact on female students, 16%, than male students, 12%. The second main cause of absent or tardiness is ***working in houses to support families, like fetching water, food preparation***, which accounted for ***26%*** of the total causes. This had a greater impact on female students; 16% and 10% of female and male students respectively and ***health problems*** cause ***25%*** of the cases out of which ***63%*** are caused by ***WASH related diseases***. The remaining, 37%, are due to other diseases. However, the analysis from the model class indicates that there are 5 female absent students, on average, in each month. Hence 20% of the other disease that causes absences on females are added values of many others. Among these, the menstruation cycle has its own contribution though can't be quantified.

15.75% of students in Malo School become absent or late due to health problems from ***WASH related diseases***. The follow up of cases of WASH related diseases in the model class indicate that there are high incidences in the school. There are generally 38 cases of these diseases in the model class. This shows that an average of ***7.6*** cases each month.

Lack of family education and distance of school from residences cover 16% and 5% respectively.

In general, ***31.75%*** of the causes are due to ***lack of WASH facilities*** in the schools; i.e. the 26% contribution of helping families like with fetching water and the 15.75% of health problems from WASH related diseases are concerned with safe water and sanitation facilities. Besides, **menstruation has its own contribution for the 20%** of the causes.

Data regarding unhygienic practices of students indicates that ***54.6% are due to lack of water, 27.8%*** because of ***lack of awareness*** of hygienic practices, ***11.3%*** are due to ***lack of supporters***, i.e. families don't

pay attention to hygienic practices of students because of one or any other reasons. The remaining ***6.2%*** don't practice personal hygiene due to ***lack of time***, indicating that hygienic practices are not being prioritized.

The main cause of unhygienic practices lies on the lack of water and awareness of cleanliness. Provision of safe water supply and maximizing awareness creation mechanisms can reduce the problem by 82.4%.

As responses from 10 teachers indicated, provision of facilities has raised ***confidence of female students*** by ***35.3%***. The ***awareness of students and their attention in classes*** has been improved by ***17.6% each***. On the other hand, the ***decreases in absences*** and delays have been reduced ***15.7%*** while the increase in ***participation of female students*** is ***13.7%***.

As to teachers' responses, it was found that ***51%*** of students have adapted to ***preferring using latrines*** over using an open field. It is also indicated that ***avoiding delay and absences*** and practicing ***hand washing*** after defecation are attained by students which takes share of ***13.7% & 11.8%*** respectively. The ***increase in hygienic practices*** covers ***9.8%. 13.7%*** of the respondents have indicated that there are ***no behavioral changes*** in students.

Menge Elementary and Junior

This school has 4,250 students in total.

The main reasons that made students to be late or absent is ***distance of school from residences*** that account about ***35%.*** This factor is almost similar to both male and females. The next cause lies in ***working in houses*** like fetching water and food preparation. It covers ***24%*** of the responses. This reason mainly affects female students. 21% of these are females while the remaining 3% are male students. This reflects the common practice of the families of male students will provide their son with a rented house in the Menge town if their home is very far away. The third reason that forced students to be late or absent is ***health problem***. It covers ***11%*** of the total.

The analysis for the disease types shows that 40.2% are WASH related diseases while the 59.8% are other diseases. Therefore, ***WASH related diseases*** contribution to health problems is ***4.6%,*** while 6.5% is due to other diseases. The follow up made in the model class indicates that there were 9 cases of WASH related diseases. It is on average 1.8 cases per month. On the other hand, the assessment on female absent students in the model class indicates only 6 students were absent for it in the five months.

The other major causes, ***keeping house and taking care of children***, and ***lack of education facilities*** from families have ***10%*** and ***9%*** frequency respectively. There are also some other ***unknown*** or non relevant reasons for this analysis that covers ***11%***.

The assessment for reasons of unhygienic students shows that ***32.3%*** of such students don't practice their personal hygiene due to ***lack of supporters***. The ***25%*** are unhygienic due to ***lack of time***, ***15.6%*** due to ***lack of awareness*** and the remaining ***3.1%*** are caused by ***lack of water***.

The main cause of unhygienic practices lies on lack of supporters. The 25% cover shows that the victims have lack of time. This shows that there is less or negligible awareness of the issue. The provision of safe water supply and maximizing awareness creation mechanisms in the school can reduce the problem by ***43.7%.***

This school is provided with 6 latrines (2 by the Project, 2 from Health care office and 2 existing) and water supply. The main impacts that are induced from these facilities were assessed by the research. ***40%*** of the respondents have indicated that ***awareness of female students*** is raised as a result of which certain changes are observed in them. ***36%*** of these respondents have also marked that the ***participation of female students*** in classes is raised. The ***22%*** showed that the ***attention*** of whole students and ***awareness*** to learning is raised. The ***reduction in absence*** and delay are rate by ***2%***.

It is shown in the data that 50% of the respondent teachers agree in that there is change of behavior in using latrines in comparison to the previous time. 46% of these also agree in that there are increased conditions of hygienic practices of students. The 2% have also confirmed that there are changes in hand washing practices among students. The analysis shows that all respondents agree there is visible change of behavior in students after the provision of these facilities.

Menge High School

There are a total of 5,164 students.

Data has indicated that ***50%*** of absent students are forced by the ***work load in the house***. These include fetching water and food preparations. If these are disaggregated in gender wise, results show that 27.5% of absent students because of house work load were females while the number of males accounts to 22.5%.

Health problems have been found to be the next causes of absence in the high school. These cover ***16.25%*** of the total cases. ***Distance of school*** from residence, ***lack of education facilities*** from families, and ***keeping house & caring children*** causes ***12.5%, 8.75%*** and ***2.5%*** respectively.

11.25% of male absences are caused by health problems while this figure for the females is at 5%. Possible justifications for the absence of females due to health problems to be so much less is that there are many fewer female students at the high school level.

Additionally it was found that of 33 cases of registered absences, 20 were due to WASH related diseases. This amounts to 60.6% of the total absences due to health problems. This can also be expressed as *9.8%* of absences are due to ***WASH related diseases***.

Out of 58 students interviewed on unhygienic, ***53.4%*** stated it is because of ***lack of supporters*** while ***20.7%*** and ***19%*** have marked their reason as ***lack of water*** and ***lack of time*** respectively. ***1.7%*** of them have also indicated as it is because of ***lack of awareness***.

Unlike the others, in this school, the number of unhygienic male students is much more than the females.

58.1% of teachers have indicated that ***awareness of the students is raised***; ***22.6%*** pointed out ***confidence of females is increased***, ***9.7%*** have also showed that the ***absences and delays are reduced*** unlike the previous time. ***6.5%*** of the responses have also lied in saying ***participation of female students is raised*** while ***3.2%*** of the respondents marked that there is ***no change*** in students though the provisions are there.

43.3% of interviewed teachers indicated that *hygienic conditions is highly improved* which is similar with the impact mentioned above. It is also mentioned that ***washing hands are being practiced*** and ***delays and absences are sharply reducing*** which consists of ***20% each***. ***16.7%*** of these teachers have also showed that students have started ***preferring latrines*** to open defecation.

General findings

Compilation of causes of students' absenteeism indicates that 32.1% of the cases are because of the work load in the house including fetching water and cooking foods. In this category, the cause is very high for females at 21%. This confirms that the burden of household activities lies on females. Second main reason that made students to be late or absent is the distance of schools from residences. This takes the share of 19.9%. The analysis shows that this is major for male students. Disaggregated data shows that it becomes cause for 11.1% of male and 6.8% of female students. Health problems are the next cause agents of the case. This covers 17.5% of the total. The analysis has shown that this is severe in the case of males. Calculations show that the male victims induced by this cause are 12.1% while the case for females is 5.4%. Keeping houses and lack of education facilities by families have contribution of the case by 14.3% and 11.5% respectively. Other reasons accounts for 4.7%.

Conclusions and recommendations

Conclusion

Lack of household water, awareness and time are the major reasons for unhygienic students. Through hygiene promotion, unhygienic student practices can be reduced by 33.4%.

Health problems, lack of awareness and early marriage are the main reasons for female students. WASH sector interventions could alleviate the student dropouts caused by lack of awareness, work load, and health problems by at least 29.5%.

WASH provision in schools undoubtedly brings many advantages to the teaching-learning process by reducing absenteeism and drop outs significantly, enhancing the awareness of students in hygienic conditions, and lessening female students' dropouts and absences.

Recommendations

- It is necessary to establish school sanitation club that monitor and follow up behavioral changes.
- Schools and Education Offices/Bureaus should devise strong monitoring systems, should disseminate exemplary behavior changes of some students or classes to others within the same or between schools, and should develop strong indicators of success for changes in student behavior.
- Analysis should be undertaken at Woreda level so that integrated approaches can be followed in each school and changes monitored easily.
- As a lack of families' awareness was found to cause delays, absences, dropouts and unhygienic conditions, it is crucial to focus on educating the students' families.

- Practitioners and WASH implementing organizations in schools can use this data for advocacy purpose as the results show a convincing link between WASH and Education.
- It is important to increase the funding allocation for school WASH to meet the MDG education targets and national objectives.
- Local structures like TPA and Kebele School Board should improve the quality of education by budgeting for the provision and management of school WASH facilities.
- Scale up this study in terms of indicators and increased number of schools.

References:

N. Marilyn & T. Shibabaw 2005 Sanitation Provision in Benishangul Gumuz Region State Schools: Girls and Women's Experiences, WAE, UNICEF & VSO Ethiopia, pp: 1-2.

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