MID-TERM REVIEW

OF

THE SCHOOL SANITATION & HYGIENE EDUCATION (SSHE) PROJECT

IN SOUTHERN PROVINCE, ZAMBIA

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Thérèse Dooley
Lawrence Michelo

Ireland Aid

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1.0 EXECUTIVE SUMMARY:

Improving sanitation and hygiene in schools and the development of improved hygiene behaviours in children are both necessary and pose an urgent challenge to Zambia The importance of improved hygiene and sanitation has been well documented and it is widely acknowledged that such improvements can have major impact not alone on diarrhoea morbidity and mortality but also on the incidence of roundworms, hookworms and schistosomiasis. For children this is vitally important because such infections can lead to poor growth and contribute to severe to moderate stunting and in the case of worms vitamin A and Iron deficiencies. Children are most vulnerable to such hazards and are affected the most. Access to hygiene knowledge and sanitation facilities is a fundamental right that safeguards children from such risks.

Because improvements in hygiene and sanitation results in healthier and better nourished children their ability to learn and retain information is greatly improved, which in turn will have a major impact on the child's educational performance. By focussing on children and providing them with both the knowledge and skills to improve their hygiene related behaviours you empower them to become agents for change within their families and communities.

The SSHE project in Zambia is a pilot project and over the past two years a wealth of experience has be gained through implementing the various components of this project. This review sought to identify the lessons, which have been learned across a broad spectrum of issues so as to inform not just the future of this project but also the future of SSHE in Zambia. In many ways the project itself is a learning process and has resulted in a lot of activities being undertaken at national, district, school and community levels. The review provided the project managers with an opportunity to reflect upon all of these activities and assess their relevance to the overall project objectives.

The findings of the review indicate that there have been tremendous achievements within the project over the past two years, many of the targets have already been achieved or even exceeded in some cases. The districts have come through a very steep learning curve in relation to project implementation and are starting to appreciate the importance of community capacity development as part of the overall process. Capacity building and service delivery have formed major components of the processes to date and many lessons can be drawn from these processes.

While acknowledging the work that has been carried out to date in school sanitation and hygiene education a lot more still needs to be done. A concerted effort is needed by everyone to sustain the benefits that have been achieved to date and to improve on them. It is important that effective partnerships be developed between all the concerned government agencies, local authorities, schools, communities and children. The project needs to consolidate its interventions and relate each activity to the project objective, while clear and concise indicators also need to be defined. Additionally there is an urgent need to change from a service delivery to a more behavioural and skills-based process in order to attain the desired social, educational, environmental and health improvements.

2.0 INTRODUCTION:

Ireland Aid has been actively involved in the water supply and sanitation sector in Zambia since the inception of its programme. At present the Water Supply and Sanitation portfolio has three broad sectors of support namely: nationally supported initiatives, school sanitation and hygiene education in Southern Province and support to WSS activities in the Northern Province Development Programme (NPDP). Both National and NPDP activities are seen as complimentary to each other particularly in the rural and urban water supplies and sanitation components. However, school sanitation activities are currently more strongly supported through specific project activities in Southern Province and are implemented through a UNICEF/GRZ project.

In 1998, IA provided funding to UNICEF to support D-WASHE activities in Southern Province. These funds were mainly used to increase access to water supply in the districts of Mazabuka and Choma while, counterpart funds were used for capacity building activities of communities and D-WASHEs. In 1999, with further funds from Irish Aid, a more concentrated effort was initiated to promote School Sanitation and Hygiene Education (SSHE) in two districts (Monze and Mazabuka) in the Southern Province as a pilot project and as part of the UNICEF global School, Sanitation and Hygiene Education project. The D-WASHEs started to work actively with the staff of the Ministry of Education, and teachers and PTA's gained extensive experience and knowledge of SSHE activities. The response from the D-WASHEs, District Education Officers (DEOs), schoolteachers, and PTAs was very positive. Encouraged by this initial success, the activity was expanded to two additional districts (Kalomo and Sinazongwe) in Southern province.

The School Sanitation and Hygiene Education pilot project has now been in operation for over two years. In line with the provisions of the project agreement between Ireland Aid and UNICEF, a mid term project review on the progress of the SSHE project in the four districts of Monze, Mazabuka, Kalomo, and Sinazongwe was undertaken in March 2002.This report presents the findings of this mid-term review and attempts to document the achievements and to capture the lessons learned to date through the implementation of this pilot SSHE project. The purpose of this report is to highlight the major issues, which arose during the review and discussions at community, school, district and National levels. Additionally the report makes recommendations on actions, which may be necessary to strengthen project activities and long-term impact and sustainability.

It is important to state that the aim of this exercise was to review and not evaluate the SSHE project. The review sought to look at the processes being undertaken at all levels, to highlight constraints being experienced and most importantly to highlight the lessons that have been learned during the course of the past two years of implementation so that these lessons can be built upon to further strengthen the project. In some cases these lessons had been recognised prior to the review and steps were already been taken to share the positive lessons and seek alternatives to counteract the negative ones. The review related solely to the SSHE project in Mazabuka, Monze, Kalomo and Sinazongwe districts.

3.0 BACKGROUND[1]:

The SSHE project evolved out of the previous 5 years work in the target Districts under the WASHE programme. This programme laid the foundations for SSHE, which sought to strengthen the impact of the WASHE interventions and increase the focus on Children. During the implementation of the WASHE programme conditions of sanitation facilities in primary schools were found to be very poor. Most of the schools lacked appropriate sanitation and hygiene enabling facilities, and there was little or no emphasis placed on health and hygiene education within the school.

In the context of this challenge, UNICEF supported the Government of the Republic of Zambia to develop guidelines on the integration of health and hygiene education in the school curriculum and the training of teachers on the use of these integrated guidelines. In addition to this support was provided for the construction of latrines and other hygiene enabling facilities within the schools and surrounding communities. The project has five main strategies for implementation and they are: To increase access to safe water; to increase sanitary means of excreta disposal; to improve sanitation and hygiene practices in schools and communities; sustainability and capacity building strategies. While, direct support is provided to promote sanitation and hygiene in schools in the four districts, focus is also placed on villages and communities surrounding the schools. The project is implemented through the D-WASHE committees at district level, while NGO's are also actively involved in the process.

3.1 Objectives[2] of the SSHE&N Project

The overall aim of the school sanitation and hygiene education project is: ***to improve the health and nutritional status (and thereby the learning capacity) of school children in targeted schools.*** The project aims to improve water and sanitation in schools through the WASHE basic needs model, which calls for community participation in cleaning the surrounding environment in schools, increasing access to safe and accessible water supplies, and improving sanitary means of excreta disposal by providing latrines. The project also emphasises hygiene education by providing effective hygiene education programmes in the school curriculum.

The project has three main objectives namely:

- To act as a pilot project, to help implement the National Sanitation Strategy through Schools.
- To assist selected schools to be rendered girl friendly by improving the conditions of school sanitation and hygiene
- To assist PTA's to improve sanitation practices in communities in their own neighbourhood.

More specifically the project aims:

[1] Detailed in Annex 2 – SSHE in Zambia
[2] Detailed in Annex 2 – SSHE project in Zambia

- To target WASHE basic needs in 120 schools, 4,800 households, 28,800 people in 240 villages in the neighbourhood of these schools in Mazabuka, Monze, Sinazongwe and Kalomo districts in Southern Province:
- To ensure commitment is generated at district level for school sanitation and Hygiene education.
- To encourage Parent Teacher Association in 120 schools in 4 districts to support, improve and/or construct school sanitation and hygiene enabling facilities and to sustain improved hygiene behaviours.

3.2 Objectives[3] of the mid-term review:

The overall objective of the mid-term review is: ***To establish the extent to which the SHN project has met the objectives and planned outcomes outlined in the project document; document achievements, constraints and lessons learned over the 2000 to 2001 implementation period in order to inform future work in the sector.***

More specifically the review sought:

To review the project design to examine whether the current activities can serve to achieve objectives and project outputs and to:

- Assess project relevance.
- Assess cost effectiveness.
- Assess project sustainability
- Assess project impact.
- Assess the programme management of the two approaches (UNICEF/D-WASHE and UNICEF/NGO/D-WASHE) to draw lessons for replication in similar future projects
- Assess efficiency of service delivery (including the training and training materials.)
- Assess the effectiveness of the monitoring and evaluation system.
- Determine whether all the activities are necessary, are they sufficient, and are there an efficient monitoring and evaluation system?

3.3 Methodology

The review was formative in nature and utilised a synthesis of epidemiological, anthropological, communication and participatory approaches aimed at providing both qualitative and quantitative information on the project progress and outcomes. Initially information was gathered through a desk review of relevant documents and consultations with government departments at national level, UNICEF, Ireland Aid and various NGO's working in the sector. Following the selection of sites meetings and discussions were undertaken with district teams, extension workers, school bodies, school children and recipient communities.

Data collection techniques included, key informant interviews at national, province, district, school and community level, focus group discussions with different stakeholders,

[3] See Annex 1 – TOR's for mid-term review.

observations and utilisation of various participatory techniques to assess knowledge and behaviour patterns. Additionally to the extent they were available health statistics were reviewed to assess possible epidemiological differences over the life of the project.

4.0 REVIEW FINDINGS

The basic rationale behind the project is very solid as the benefits of improving school sanitation and hygiene behaviours among children and the wider community is internationally recognised. In addition to rendering schools girl friendly such improvements have been proven to greatly reduce diarrhoea, cholera, hookworms, roundworms and bilharzia. Such reductions in diseases and infestations result in decreases in protein-energy malnutrition and vitamin A and Iron deficiencies. Without such improvements it is widely acknowledged that 4 in 10 children will not reach their full educational potential[4]. Ensuring that children have a safe school environment, are healthy and able to learn will not alone impact on children's education but also on the wider community for generations to come.

The findings of the review were many and varied, many positive achievements have been attained and a wealth of lessons has been learned through practical implementation of the project at school and community level. Because this is a pilot project it is important that these lessons be highlighted and thoroughly reviewed by the project managers and implementers so that they can be built upon in future SHN initiatives in Zambia.

At this point in time it is not possible to determine whether or not the overall aim of the project (*to improve the health and nutritional status of school children in targeted schools)* has been achieved. It is too early in the process to determine the impact of the project on the health and nutritional status of the children as many of the activities have just commenced. Additionally there is a need for the collection of baseline and on-going information on the health profiles of the children in the targeted schools so that actual impact can be determined. There is however some anecdotal evidence of health improvements through testimonies given by teachers and clinic staff and reported decreased incidences of diarrhoea and absenteeism among children.

The more specific objectives of the project are easier to review and comment upon at this stage and they shall be assessed both collectively and individually throughout this section of the report.

4.1 Achievements to date:

A lot has been achieved during the first two years of the project, in addition to identifying key partners, sensitising schools and communities, developing planning, monitoring and reporting structures, training and capacity building and engaging in national level dialogue on SSHE, the project is progressing very well in achieving its intended outputs and in some cases exceeding its planned outputs. Table 1 highlights the planned project activities and comments on achievements to date.

[4] See Annex 6 for additional details

Table 1: Planned Project Activities

Planned Activity	Comments:
Improve planning for schools sanitation and hygiene at district and school level through training and advocacy: • Promotion of School Sanitation and Hygiene education Guidelines. • Preparation of Multi- Year plan at district level. • Preparation of annual plan for school sanitation and hygiene education by Parent Teacher Association and Child groups.	**SSHE now has a greater profile in Zambia, with greater knowledge and awareness of the project at National and District levels.** • The SSHE guidelines • All four districts have multi-year plans developed • Annual school plans vary and are in the process of being developed in most schools. However the involvement of the PTAs and Children in their development is not always apparent.
Improve Sanitation Facilities and Hygiene Practices at Schools. • Promotion of improved affordable standards and designs for WASHE facilities. • Orientation of parents Teacher Association and Children Groups to undertake health Education activities. • Construction of school toilets, rehabilitation and construction of water points, safe drinking water facilities, Safe transportation and handling of drinking water, hand washing facilities and refuse pits.	**Sanitation, hygiene enabling facilities and hygiene behaviour practices have been improved in a number of schools to varying degrees.** • Standards and designs of WASHE facilities promoted need additional attention. • Peer educators have been trained and PTA's orientated. However, more learner cantered and CCD approaches need to be incorporated. • Service delivery is a major component of the project with the provision of latrines, water points, plastic containers and hand washing facilities. (Detailed in section 4.4)
Improve Sanitation Facilities and Hygiene Practices at household level. • Orientation of Parent Teachers Association to Undertake health education activities • Promotion of affordable standards and designs for WASHE facilities • Targeted subsidy to female headed house holds and those caring for orphans • Promotion of impregnated bed nets • Health education on HIV/AIDS	**Sanitation and hygiene enabling facilities have been provided at household level. There is some hygiene promotion also taking place.** • PTA's do not appear to be actively undertaking health education activities in the communities. • Standards and designs for WASHE facilities need additional attention. • Subsidies are very well targeted to vulnerable groups. • ITN's are being promoted and distributed (sold) • HIV/AIDS forms part of the health education programme.

The project aims to improve water and sanitation in schools and surrounding communities through the WASHE basic needs model. This calls for community participation in school and community level activities, increasing access to safe and accessible water supplies, and improving sanitary means of excreta disposal by providing latrines. The project also emphasises hygiene education by providing effective hygiene education programmes in the school curriculum and within the communities. As outlined in Table 1 many of these issues have been achieved by the project, however, the extent to which these objectives have been attained, the processes involved and their sustainability and impact need further discussion and this is provided in sections 4.2 to 4.8.

A number of specific outputs were highlighted in the project document and the achievements in relation to these planned outputs are summarized as follows in Table 2.

Table 2: Planned outputs and achievements to date

OUTPUTS	PLANNED	ACHIEVED
No. Of Schools	120	98
Number of Villages	240	320
Number of Households	4,800	6,400
Number of People	28,000	38,400
Latrines	480	842
Hand Washing Facilities	360	372
Well Rehabilitation	20	117
Borehole rehabilitation	20	80
Formation of Children's drama groups	120	120

The implementation rate when compared to the expected outputs is very impressive and the project has already reached many of its targets within the initial two years. One concern however remains regarding the completion of activities at school and community levels and how these relate to the reported outputs. When an achievement is reported in terms of a school for example does that imply that all the basic WASHE needs have been achieved in that school or that the school has been reached by the project? In many cases during the review facilities at schools had not been completed for example, latrine slabs had been made or pits had been dug, but the latrines were still incomplete. In other cases just one or two elements of the WASHE basic needs package had been addressed and there does not appear to be clarity as to how these are reported upon are these included in the 98 schools which have been reported upon under project achievements or are they additional? Some clarity will be required on this issue prior to the completion of the project so that actual achievements can be reported upon.

Another achievement of the project relates to the realization of one of its specific objectives. *(To ensure commitment is generated at district level for school sanitation and Hygiene education.)* In relation to this the roles and responsibilities of the various actors at district level are evolving and there is now greater clarity at all levels. Some districts have progressed at a greater rate than others, but in general D-WASHE committees are more

aware and appreciative of the importance of school sanitation and hygiene education and are committed to implementing the project. They are actively working as coordinated teams and various NGOs are also working with the D-WASHE's in implementing the project. However, one noticeable absence during the review was the participation of the District Education Office (DEO) in the process. Because this is fundamentally a school oriented initiative it is vital that at district level Ministry of Education (MoE) officials are more actively involved in both planning and implementation of the processes.

4.2 Project relevance:

The relevance of the current project activities, to the achievement its objectives and planned outputs. Are activities in line and relevant and are they implemented efficiently?

The project has a number of strategies and activities aimed at achieving the overall project objective. The majority of these activities and strategies are very relevant and are vital to the project. A well-defined implementation strategy with a good planning component ensures that the project has a very solid foundation. Combined with this is the development and strengthening of capacities at all levels to ensure that the necessary skills are available for all the various components of the project. While, a service delivery component that provides for the delivery and/or availability of basic services and materials for the construction of sanitation and hygiene enabling facilities is also very positive.

However, the review team felt that some of the activities currently been promoted and implemented particularly at community level are not immediately relevant to the achievement of the project objectives. The original project design is good as it aims to ensure that basic WASHE needs are met in schools and surrounding communities. These basic WASHE needs are described as: Sanitation facilities; hand washing facilities; drinking facilities; refuse pits and dish racks. But currently the project is also promoting tree planting, composting, fuel-efficient stoves, Insecticide treated bed nets and nutrition gardens. There is real evidence of an overload of activities particularly at household level and it would be better to streamline and encourage the prioritisation of the basic WASHE activities at school and community levels. It would be more appropriate to identify specific activities and steps to be taken within a given time frame, once these activities have been undertaken and achieved a new series of activities could then be promoted, planned for and implemented.

This is not to say that all the activities undertaken are not important but the overall objective of the project has to be addressed first and that relates specifically to improvements in Child health and nutrition. Therefore the is a need to focus on hygiene behaviour change and the provision of accompanying hygiene enabling facilities, while the whole issue of nutrition needs much greater input and specific strategies. Hygiene education is currently insufficient and although some activities are been undertaken these are mainly in an ad-hoc manner.

Because the project aims *to act as a pilot project,* one activity, which needs to be strengthened, is documentation so that the lessons learned and processes followed can be

replicated in other areas and the impact of the various activities and strategies can be measured.

There is currently little or no evidence to suggest that *the selected schools have been rendered girl friendly through the improvement school sanitation and hygiene.* This may in part be due to the fact that at district and school levels it is seen as a project, which is aimed at improving general hygiene and sanitation conditions in schools. There is no specific focus on girls or activities, which promote their greater targeting or involvement. In fact this specific objective is not currently being addressed by the activities currently being implemented. It was noted during the review that school and PTA's did not consider the issue of girls when deciding on the allocation or positioning of latrines within the schools. Sometimes, priority was even given to the provision of male facilities. There was in some cases a lack of awareness of the importance of providing such facilities for girls and even a reluctance to discuss the reasoning behind it. District level personnel did not view it as a priority within the project.

4.3 Cost effectiveness:

What is the current expenditure to date and is it in line with the annual budget? Has the money been used for the intended objectives? Are there any anomalies in terms of expenditure?

(Jim, I still need to get the reports, which you were to pouch on to me in order to do a detailed financial breakdown. Meanwhile the following are some general comments.)

UNICEF has a very strong financial monitoring system for district level activities. Budgets are agreed upon during the planning phase and are released directly to the districts on a six monthly basis. All finances must be reported upon within this period or further instalments shall not be released. The programme assistant from the WES section in UNICEF, monitors and audits expenditures at district level. He also monitors materials allocation and distribution. UNICEF itself has a very comprehensive financial monitoring and auditing system and at the time of this review IA was also undertaking a financial audit of this project, which will provide more in-depth analysis on finances and expenditures.

In general, funding is being well monitored. There are very detailed cost breakdowns available for each district and there is knowledge of standard costs. In some ways UNICEF actually so tightly controls this that it is seen as a major constraint by the districts themselves as prior approval has to be sought before any deviation of funds can be made. However there is concern at district level that the levels of funding are set by UNICEF so not all activities can be funded. In fact each district receives exactly the same allocation regardless of the size of the district or current coverage levels.

Additionally funds are directly allocated to DAPP an NGO, which is also implementing this project in the identified districts. DAPP submits a project proposal to UNICEF and a contractual agreement is drawn up between the two parties and funding is directly released

to the organisation. At the time of the review financial reports from DAPP related to expenditures were not available.

In terms of district level activities the project is very efficient, project costs, support costs and service delivery have all been defined. One issue however, which should be considered particularly in relation to the provision of sanitation facilities is that the cheapest option not always the best option and longer-term sustainability of the structures must be considered. This is particularly relevant to school sanitation facilities due to their high level of use, sanplats may well be the cheapest option for sanitation facilities but within schools the superstructure is also vitally important. Thought should be given to increasing the level of support for the construction of sanitation facilities within schools so as to ensure that they are safe and durable and can be properly maintained.

4.4 Project management:

The D-WASHE committees and core personnel are the managers of the interventions at district level, Due to its implementation strategy the project has also successfully involved NGO's and other actors who can contribute to improved hygiene behaviours and hygiene enabling facilities in schools and the wider communities.

4.4.1 Planning:

The project have a very detailed planning component and this has been expanded and strengthen over the past year by the introduction of Household planning, Village Action Planning and School Action Plans. This is a very positive step towards community based planning and should serve to strengthen the overall process. As this is the first year of implementation of these plans the process needs to be closely followed so its impact can be determined. However, care needs to be exercised so as to ensure that the presented plans are truly those reflected by the villages and processes are underway to ensure that the ACO's truly understand the concepts behind VAP's and allow the communities the flexibility to prioritise their own needs and plans. One issue which may need to be considered as the process is being monitored and refined is the issue of community priorities which might be outside the issues contained in the household card as currently the cards are very much facilities oriented and the VAPs are resulting in material lists rather than actions and behaviours.

The levels and variety of plans prepared by the D-WASHE in the four districts varied. Some D-WASHE compiled district plans of which SSHE was just one component while other D-WASHE prepared specific plans for "UNICEF". This has led to some confusion within the districts and in some cases a feeling that the approach of the project was very top-down. This in itself is not actually a planning problem but rather a lack of clarity within the D-WASHE and the absence of a P-WASHE to provide advice to the D-WASHE committees has confounded this problem. UNICEF has had to play both the roles of capacity builder and donor on the issues of planning and monitoring and this may be the cause of some of the confusion at district level as they are unable to distinguish between the two different roles. In addition to this there has been a high turnover in staff and representatives on D-WASHE's many of whom may now require orientation to the processes. Multi-year action

plans have been developed and the annual implementation plans are based on these. There is a concern however that these multi-year plans all appear to be uniform and produced by UNICEF rather than the individual districts, but this may be due to the method of compilation. The timing of district level annual reviews and work planning should be revised so as to better address implementation strategies as related to weather and agricultural practices. The districts were developing work plans during the review mission in March when the project should actually be actively working at community level. All districts felt that it would be more appropriate to plan in November/December so that everything could be in place for implementation of activities from March to October.

The inclusion of NGO's in the D-WASHE is an extremely positive step as it greatly improves the co-ordination and planning processes. However, it is particularly important that the NGO's (particularly DAPP) openly share their various District plans with the D-WASHE and it would be ideal if they were involved in the annual reviews and planning processes. This would help to avoid confusion concerning areas of operation and the identification of priority areas.

UNICEF develops an annual work plan for the project; this is a detailed plan containing all the key activities to be undertaken and their related budgets. The only difficulty with these plans is that they are not donor specific and therefore relate to various projects of which IA's SSHE is just one component. One major constraint to the project for the past two years has been the delays encountered with the approval of these plans within UNICEF. A new computerised planning and management system has been installed and work plans are compiled for all UNICEF activities within Zambia, only when all components are completed and installed can the plans be approved and this has resulted in long delays for the project with annual work plans not being approved until March. Without this approval financial allocations cannot be made and this can greatly delay project activities.

4.4.2 Implementation:

As previously mentioned the implementation rate when compared to the expected outputs is very impressive and the project has already reached many of its targets within the initial two years. The roles and responsibilities of the various actors are evolving and there is now greater clarity at all levels. One concern however remains regarding the completion of activities at school and community levels and how these relate to the reported outputs. When an achievement is reported in terms of a school for example does that imply that all the basic WASHE needs have been achieved in that school or that the school has been reached by the project? Some clarity will be required on this issue prior to the completion of the project.

Another concern in terms of implementation is the Prioritisation of activities. Currently the project has a very broad base of activities, which are being introduced at school and community levels. This can in some instances result in lack of focus due to too many issues being dealt with at once. VAPs should help to overcome this issue as the communities can prioritise its own needs but care should be taken not to deviate too much from the original project objectives or the project runs the risk of becoming thinly spread and lacking focus.

Perhaps one of the results of such broad based actions has been the failure by some communities to complete activities. They may become overwhelmed by the sheer volume of activities and move from one to another without finishing any. A concern in this area would be the 33% completion rate for latrines when compared to the number of slabs cast.

Implementation needs to become more process orientated rather than being viewed as an event. The VAP's is the first step in this direction, but experience within the project is already indicating that it is not possible to complete all activities in a village within one year. D-WASHE needs to be given more flexibility in terms of follow-up and support to the schools and communities where the project is operational. Not all communities progress at the same level and EHT's and ACO's also require varying levels of support.

Quality of delivery needs to be closely monitored and the project has recognised this as a weakness and is currently taking steps to overcome the situation. From 2002 D-WASHE will be responsible for technical trainings and this should help to strengthen quality aspects.

4.4.3 Community/school Management:
Overall the project is very well managed particularly in relation to service delivery. Systems and strategies are in place to ensure effective and timely delivery of services at all levels. However its major weakness lies in developing community management skills. In most cases there appears to be a reluctance to allow the communities to manage the project themselves. The processes currently used are quite controlled with the communities and schools just planning for pre-determined facilities. The role of the PTA's also remain unclear particularly outside the school environment, they is currently little or no evidence of their role in village level activities and this is an area which needs to be strengthen so as to strengthen overall community participation and management in the processes.

4.5 Service delivery:

Efficiency of service delivery – type and impact of capacity building. What capacity building programmes exist? What training tools are used? Have ACO's and masons received relevant skills? Is training reaching V-WASHE? Are there gaps in capacity building and training methodology? What PRA tools are used and how relevant are they?

4.5.1 Capacity building:
The project has a very detailed capacity building component much of which was started under the WASHE Programme. There are many levels and types of trainings included in the project and these range from the training of local masons and pump minders, through training of ACO's and EHT's to building the capacity of the D-WASHE. Training covers many topics at all the various levels and includes technical training on the construction and maintenance of water and sanitation facilities, communication and mobilisation skills and planning and monitoring of activities.

The impact of this capacity building can be seen throughout the project as structures are built and community based learning activities are undertaken. However, follow-up and support after initial training needs to be strengthened. This would help to build confidence in the trainees whilst they are practically implementing their newly learned skills and also

act as a form of quality monitoring. The project has recognised the importance of monitoring the quality of training as this has a major impact on the quality of construction and other issues, steps are being taken to improve training and to provide support to the trainers. In this respect two new manuals have been developed one as a guide for ACO's and the other on participatory hygiene education. It is important that these manuals are finalised and individuals trained in their use.

At this point in time it might be appropriate to undertake a training needs exercise, this would be beneficial in two main ways, firstly it would assist in identifying new partners and individuals who were not included in the initial training programmes and secondly it could serve to assess the quality of the trainings previously undertaken and the competence of those trained to undertake the intended activities.

Due to the fact that this is predominantly community-focussed activity it would be appropriate to develop the skills of the project managers in community based processes and community management. There continues to be a tendency by project managers to "manage" the project at all levels and this is hindering community capacity development. Capacity building at community level currently appears to be confined to training of local artisans in construction skills, some hygiene education is also being undertaken at community level, but community participation is currently very controlled and not really reaching V-WASHE level.

Some participatory tools and techniques are being used at community levels. The predominant techniques of choice (among ACO's and EHT's) appear to be the ladders. While these tools are very good and beneficial for community participation, they way in which they have been developed and are being used within communities is very prescriptive and focussed on pre-defined technologies. Some EHT's also reported using other techniques such as Identifying and Blocking the routes of Diarrhoea and 3 pile sorting there was evidence of use of these tools in some instances while in other cases the tools were not even available at the clinic.

The major gaps identified both in terms of capacity building and the tools being used relates to the omission of a number of steps in community capacity development. The project has a tendency to start identifying solutions within a community/school before the opportunity is given to these groups to identify and analyse the problems. Annex 7 provides a guide for the use of participatory methods and tools for community capacity development.

4.5.2 Technology and technology choices:

The predominant technology choice for water supplies at district level is Boreholes, and some well rehabilitation. This is understandable given the current lack of rainfall in the region however where possible and practical other options should also be investigated. The issue surrounding sanitation options has been widely discussed and researched under the project and the standard option is that of a Sanplat. At school level however more widespread discussion is needed so as to ensure that the structures are adequately completed and this may involve the provision of additional cement. What is important within the school environment is that the structures are well built, safe for use and capable of being thoroughly cleaned internally. Hand-washing tanks at schools are evolving as

experiences are gained in the construction and use of the facilities, much work has been undertaken on the provision of school hand washing facilities throughout the region and efforts should be made to obtain designs from other countries which could be improved upon and adapted for Zambia.

Communities positively receive water containers, which are being sold under the project for storage and hand washing purposes. The 20l jerry cans are being used for their intended purpose of water storage. However in some cases the 5 and 2.5l containers, which were intended for use as hand washing facilities are being diverted to other uses. This is not a negative aspect as the containers are predominantly used for drinking water and milk storage, however it doesn't solve the issue of hand washing facilities. Perhaps the solution to this is to allow communities to develop their own facilities as many groups in these areas produce clay pots, which could be adapted for use.

Within the DAPP project 20l containers are being provided to schools for the storage of drinking water, this is a very positive step and ensure clean safe drinking water for all the pupils. This impact of this is however being undermined due to the fact that cups are being shared for the consumption of this water. This was discussed during the review mission with the implementers who had failed to recognise it as a threat, a number of options were discussed and work is underway to come up with a solution.

As malaria poses a very large threat particularly to children within the target communities Mosquito nets are provided and sold under the project. This is a very positive step towards reducing the incidence of malaria within the area and should be expanded where possible. However, this component of the project requires a very defined strategy so as to ensure that the nets are both initially treated and that re-treatment takes place. Currently various strategies are implemented in different areas and it is difficult to determine whether the nets are being treated and properly used or indeed if they are reaching the intended target groups. In order to address this issue it is vital that a strategy be developed which also has a community education component.

4.5.3 Hygiene education and behaviour change:

The role of hygiene education in the overall project context needs to be more clearly defined. Fundamentally this is a behaviour change rather than a service delivery project. The differences between knowledge and behaviour change needs to be addressed and the new mechanisms being put in place by the project should help to address this issue. The ACO's and EHT's need to be strengthened and supported in this area especially in how they approach communities in terms of hygiene education. Without a behavioural focus the project runs the risk of moving from assessment to action without providing the communities with the opportunity to analyse their situations and relate their practices to health improvements.

The Peer educators and teachers trainings currently being undertaken by DAPP need to be discussed with Ministry of Education so as to ensure that they are in line with Government policy and so that adequate support and follow-up can be provided by the local DEO's

The D-WASHE needs to build their capacities in relation to health and hygiene education, they need to have an improved understanding of the relationship between sanitation, hygiene and health. This would allow them to better appreciate the importance of the project and to move it from a service delivery to a behaviour change process.

4.6 Process impact:

Process impact of WASHE basic needs. Changes in: water use patterns; latrine use and coverage; hand washing practices; general cleanliness; disease reduction and women's role.

As highlighted in section 4.1 at lot has been achieved by the project over the past two years. Because there are combinations of interventions being undertaken within the districts at the same time, during the review it was sometimes difficult to distinguish overall WASHE from SSHE interventions due to the fact that both activities are very much inter-related. The main difference is that under SSHE the schools become the focal points for intervention with expansion into the surrounding villages and communities through the PTA's.

Table 3 provides an indication of the current situation of access to WASHE facilities and key processes within schools in the four districts.

Table 3: Access to WASHE facilities in Schools - 2001

Access to facilities in schools	Percentage
Access to safe water within 500m	78%
Community and schools sharing same water supply	86%
Hand Washing Facilities	43%
Discuss sanitation and hygiene during school assembly	30%
Visible teaching aids on sanitation/hygiene	34%
School Sanitation Coordinator	41%
PTA active in sanitation programme	84%
Access to Sanitation Facilities	?

(Lawrence – please confirm that these are 2001 figures – do we have any baseline data)

As can be seen access to sanitation and hygiene enabling facilities remains low and there is a lot of scope for expansion of the project. The role of teachers and the PTA's in hygiene education needs more clarity and input; resource materials, which are child friendly need to be developed and teacher training increased so as to ensure that the project expands throughout the schools. The PTA's involvement in the processes should be evaluated, the above figures suggest that they are very active, but the review team felt that this related solely to the provision/construction of facilities within the schools and not necessarily to the hygiene behaviour components.

Table 4 summarises the WASHE basic needs in the 4 districts in Southern province and as can be seen access to water is once again very high with 81% of households accessing water

<1Km from their homes. 67% of households or 10,023 households do not use latrines. This is a major challenge to the project because even if access to sanitation facilities is increased at schools the health impact will be negated due to the fact that the children's home environment is not improved. So although a lot has been done in relation to the provision facilities at school and community levels Table 4 also demonstrates the continued need for support in these districts in order to improve overall sanitation and hygiene behaviours and to impact on health.

Table 4: WASHE basic needs in 4 districts in Southern Province 2001

WASHE Facilities	Mazabuka	Monze	Kalomo	Sinazongwe	Total (4 Districts)
No. Of households	3,336	4,135	3,624	3,864	14,959
Protected Water < 1 Km	78%	81%	81%	84%	81%
Protected Water < 500 m	50%	47%	45%	46%	45%
Use of Latrine	42%	32%	33%	24%	33%
Use of Dish Rack	67%	49%	60%	48%	60%
Use of Refuse Pit	58%	50%	52%	41%	52%
Use of Mosquito net	14%	6%	10%	12%	10%
Wash Hand properly*	30%	29%	14%	25%	24%

One very positive aspect of this project has been the issue of targeting of vulnerable groups. The project undertook very details surveys in the target districts, which allowed them to identify and target specific groups. Within the project area 33% of households look after orphans. 11% are widow headed. 7.5% female headed. 0.2% orphan headed and these groups are prioritised within the project. Poverty alleviation is the primary goal of IA's development programme and the targeting of these groups for special assistance is in line with this goal. However, outside of these specific groups there is no concerted effort to target the poor and due to the fact that the project activities operate on a demand responsive approach (whereby households contribute to the costs of all facilities supported) there is a risk that the poorer members of society could actually be further marginalized. This is a common problem throughout the WES sector and can only be overcome through greater community involvement in project planning and management.

Table 5 attempts to demonstrate the changes in sanitation and hygiene practices, which have occurred in the target districts since 1998. It is a summary of the results of various studies and evaluations which have been undertaken over the years and which are comparable to each other. As can be seek access to both water and sanitation facilities has increased dramatically since 1998, while there has also been a dramatic change in hand washing behaviours. The only anomaly, which exists in this information, relates to the reduction in sanitation access in 1999 and this should be further investigated as it may be due to collapsing structures. In addition to this information it is now known that 86% of households now use safe water carrying/storage facilities.

Table 5 Overview of access and behaviour change 1998-2001

Activity	1998	June 1999	December 1999	2001
Access to Safe water	45%	55%	66%	81%
Access to Latrines	22%	27%	49%	33%
Proper Hand washing	4.5%	14%	-	24%

As previously mentioned disease reduction cannot be ascertained at this point in time, but there is anecdotal evidence to indicate there have been some reductions but these are area specific.

4.7 Monitoring and evaluation:

Effectiveness of project monitoring and evaluation to inform project design and implementation strategies. How have baselines informed design? What monitoring tools are used at the various levels? How are people involved in monitoring?

4.7.1 Baseline studies:

Extensive baseline studies have been undertaken as part of the overall process, there is a wealth of data available on schools and communities in each of the four districts and such information is exceedingly beneficial for planning and advocacy purposes. However, the information urgently needs to be decentralised to the districts so that they can use it for planning purposes and for reinforcing the reasoning behind site selections during DDCC meetings. With the acceleration of VAP within the project it is important that mechanisms are put in place to ensure that the data being gathered through this process is used within the target communities and doesn't just become an extractive process by the D-WASHE and NGO's for their planning processes.

In order to assess impact it would also be important in future areas to include some epidemiological data in the baseline surveys. This could be in the form of disease statistics from the clinic/health canters or through self-reporting during the household surveys. Additionally school records on sickness or absenteeism among students would be beneficial. Such information would greatly assist during project monitoring and evaluation exercises in helping to determine impact.

4.7.3 Monitoring:

There is a very detailed monitoring systems in place and UNICEF have a very comprehensive financial and supplies monitoring process at all levels. The reporting structures and data gathering techniques have also been well developed. However given the fact that the project in now reaching the conclusion of its initial phase now might be an appropriate time to verify some of the reports provided by the districts and DAPP. Community based monitoring systems should also be developed so as to enable communities to determine their own progress and monitor their own activities.

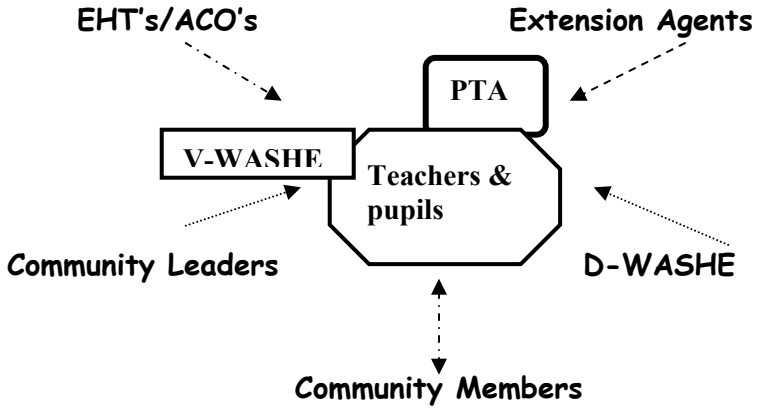
4.7.3 Indicators:

In addition to the currently established monitoring indicators, the project should now consider identifying a number of key output or impact indicators that could be monitored throughout the project cycle. Currently the indicators that are in place are process indicators and while these necessary and important for monitoring project processes, output indicators are also vital for determining the impact of these processes and the project in general.

4.8 Project sustainability:

Assess project sustainability and management and ascertain gaps. How are D-WASHEs implementing SSHE? Are ACO's/Masons fulfilling their duties and how are they managing the implementation process? Is project management at community level? Availability and affordability of spare parts. Community/school self-sufficiency and latrine construction and use.

Much work still needs to be undertaken in order to assure that the project is sustained within the target communities. While the project is being implemented both efficiently and effectively and is well managed, it remains in many ways external to the target communities, where they are seen as recipients rather than participants in the process. There is an urgent need to increase emphasis on developing community management skills. In many cases there appears to be a reluctance to allow the communities to manage the project themselves and the processes are quite controlled with the communities and schools just planning for pre-determined facilities. In order to ensure greater long-term sustainability ownership of the processes has to be decentralised to the communities. The V-WASHE and PTA's need to orientated, trained and empowered to manage the initiative. Capacity building and support should be provided to these groups, through a multisectoral approach by all the key players.



Additionally, project sustainability should be viewed from a behaviour change aspect and focused on sustained behaviour changes rather than being process or institutional based as ultimately that is the objective of the project. If the project can successfully improve

health and hygiene behaviours than sustainability is ensured. Because once behaviours and practices have changed then the issue of access to facilities no longer needs to be externally addressed, as people will develop their own solutions.

Currently the project utilises existing structures such as D-WASHE, V-WASHE, EHT's, ACO's and PTA's for project implementation purposes and this is a very positive strategy and will help to strengthen these structures and encourage greater sustainability. In some instances such as the interventions being supported through NGO's extension agents are supported to implement the activities at community level and while this helps with implementation its impact on longer term sustainability is questionable.

While advocacy was undertaken during the initial phases of the project, due to high staff turn over and changed structures this activity should now be reinforced at all levels as it will have an impact on project planning and commitment. Given the lessons learned over the past two years such advocacy activities should be addressed to a multi-sectoral group and incorporate some of the positive health impacts which can be achieved through SSHE and not solely be directed at improvement in girls participation in school.

4.9 Constraints:

A number of constraints were highlighted during the review; some were identified during discussions with project managers and implementers, while the review team identified others. They can be briefly summarised as follows:

- Late release of funding to districts is causing difficulties in relation to the availability of communities for participation in the project due to seasonal and agrarian seasons.
- Transport at district level remains a problem. Project personnel encounter major difficulties in accessing transportation for monitoring purposes.
- Delays are experienced in finalising annual work plans within UNICEF and this has a knock-on effect at district level.
- There is a need for greater consultation with the districts concerning funding allocations and budget changes and district feel that they should be given flexibility concerning the allocation of resources within their district.
- Capacity building and training is seen as a once off event and the quality and impact of the training is not monitored.
- Heavy rains in some area during 2000 resulted in many of the latrines collapsing and this undermined community confidence in the structures.

5.0 LESSONS LEARNED:

Many lessons have been learned throughout the past two years of project implementation. Some of these lessons are as a result of very positive strategies and activities within the project while others have been identified during the course of project implementation. This review also identified some gaps, which could also be considered to be lessons. The purpose of this section is merely to summarise the lessons all of which have been discussed in detail throughout this report. It is hoped that SSHE in Zambia can build on these lessons not just

in the currently pilot project but also in future SSHE activities in other parts of the country.

LESSONS LEARNED

- Baseline information on the target areas is essential. Such information in addition to proving coverage and access data should also try to include health profiles at schools and within communities.
- Process and output indicators should be developed at the beginning of the project and be routinely monitored.
- Project strategies should clearly relate to the overall project objectives.
- A clearly defined SSHE policy is essential and implementation guidelines should be developed which relate to overall policy.
- Advocacy and information exchange is an essential component of the process at all levels.
- A multi-sectoral approach is necessary and all key players should be identified, orientated and mobilised. Partnerships should be strengthened and SSHE should be integrated with other on-going activities.
- Existing structures and personnel should be used at all levels. The role of the DEO's should be clarified.
- Training and capacity building needs should be determined and appropriate training provided to the identified groups/individuals. There should be an effective system for follow-up and support following training.
- The quality and impact of training and capacity building should be closely monitored.
- Appropriate training and orientation packages should be developed for all the various components.
- SSHE should have a behaviour change focus where the provision of facilities is seen as complimentary.
- Hygiene education should be strengthened and appropriate materials and tools developed for both school and community levels.
- Community Capacity Development is an important component of the process and mechanisms are needed to ensure active community participation in project planning, implementation and management.
- A variety of technology choices and options should be provided for water and sanitation facilities. While standard designs should also be developed.
- Quality of construction should be closely monitored and facilities should not be recorded by the project until they are complete.
- Action plans should be developed at school and community levels and these should be used for project planning and monitoring purposes.
- Community based monitoring of both the processes and impact is necessary.
- Specific materials appropriate for children should be developed and used, while school specific and school based activities should be clarified.
- Guidelines should be developed on SSHE
- Activities should be prioritised in terms of the identified risk behaviours within an area.

6.0 RECOMMENDATIONS:

The project should consider **consolidating** its current activities rather than expanding too much at this point in time. It should be remembered that this is a pilot project and the lessons learned and experiences gained through its implementation are vital for future expansion both within the target districts and beyond. The lessons learned (both positive and negative) need to be reviewed and where necessary changes made during the final phases of implementation so as to strengthen the overall process and provide direction for future development of SSHE in Zambia.

The project should strive to be more **health and community focussed** therefore the primary steps should be hygiene education and community mobilisation with the actual provision of facilities being secondary and seen as complimentary and supportive of the overall hygiene initiatives. With decentralisation community based planning (VAPs) for water and sanitation now operative in the districts, it is vital that school sanitation and hygiene initiatives are not developed separately, but integrated as part of the overall process at community level.

Schools should not be separated from their surrounding communities and **complimentary activities** should be carried out both within the school and the community. Existing structures and extension agents should be utilised during implementation and emphasis should be placed on strengthening these. A major focus of the project should continue to be on skills transfer at local level to ensure expansion and sustainability of the resultant behaviour changes. School and community activities must be co-ordinated and undertaken simultaneously and not separately as is sometimes the case with the current NGO/D-WASHE strategy.

In line with this the overall process should be more **integrated and multi-sectoral at sub-district level** for SSHE is not just and education or health issue but rather an overall developmental issue. Therefore all resources available within the target community should be utilised to the maximum possible extent and all sector agencies within an area should be aware of the resources and capacities of their sister agencies. School sanitation and hygiene education should be inclusive in the overall DDCC and D-WASHE plans in a district. Sub-D-WASHE extension agents such as those involved in community development, social welfare and agriculture should be oriented to the process.

Major opportunities exist for development of school **communication strategies** for hygiene and overall health behaviour change. Experiences gained in the use of participatory methods and materials for behaviour change through the WASHE initiative, should be built upon and combined with the Child-to-Child and Life Skills approach. Activity suggestions for teachers provide a great opportunity for really impacting not just on behaviour change but the overall health of the school population.

Health and hygiene education while included in the curriculum should be developed into more than just an academic subject. Bearing in mind that teachers already have a very busy teaching schedule, teaching aids or activity sheets dealing with health and hygiene issues

should be developed for use within the school. These should focus on a pupil-cantered approach and stimulate **action based on learning**.

IA/UNICEF should **continue their support** to this initiative as not alone is it impacting on the target communities but it is also proving to be a very valuable learning and developmental process for SSHE in Zambia. The lessons learned through the implementation of this initiative are extremely important for the whole sector.

ANNEX 1

TERMS OF REFERENCE FOR THE MID-TERM REVIEW OF THE UNICEF/GRZ/IRISH AID SUPPORTED SCHOOL SANITATION, HEALTH EDUCATION AND NUTRITION PROJECT

1. INTRODUCTION

The commitment for an evaluation of the School Sanitation and Hygiene Education Project is provided for in the project proposal agreed between the Government of the Republic of Zambia, UNICEF and Ireland Aid, where it is stated that: "at the end of the second year a participatory evaluation of the project will be undertaken".

The purpose of the Evaluation (entitled "the Mid Term Review") is to capture the lessons learned up to the time of the evaluation and so guide expansion and continuation of the project and enable the dissemination of the lessons learned to other parts of the Southern province and the country. It is also envisaged that the review will clearly recommend the actions necessary to strengthen the capacities of communities to assume responsibility, in partnership with local government, for essential water and sanitation services.

2. BACKGROUND

The conditions of sanitation facilities in primary schools in Zambia are appalling. Most of the schools lack appropriate sanitation and water facilities.

In the context of this challenge, UNICEF supported the Government of the Republic of Zambia to develop guidelines on the integration of health and hygiene education in the school curriculum and the training of teachers on the use of the integrated guidelines. Further support has been provided to promote sanitation and hygiene in schools under the School Sanitation and Hygiene project, funded by Irish Aid and NORAD.

Funds received from Irish Aid in 1998 were mainly used to increase access of water supply in districts of Mazabuka and Choma, in the Southern Province. Counterpart funds were used for capacity building activities of communities, D-WASHEs, and a number of boreholes were drilled. The D-WASHEs started to work actively with the staff of the Ministry of Education, and teachers and PTA gained extensive experience and knowledge of SSHE activities.

In 1999, with further funds from Irish Aid, a more concentrated effort was initiated to promote School Sanitation and Hygiene Education (SSHE) in two districts (Monze and Mazabuka) in the Southern Province as a pilot project and as part of the UNICEF global School, Sanitation and Hygiene Education project. The response from D-WASHEs, District Education Officers (DEOs), schoolteachers, and PTAs is encouraging. Encouraged by this initial success, this activity has now expanded to 10 districts in Eastern and Southern province with funding from other donors. More details of the project are included in Annex I.

The School, Sanitation and Hygiene pilot project has now been in operation for over two years now. In line with the provisions of the project agreement between Irish Aid and UNICEF, a mid term project evaluation on the progress of the SSHE supported under Ireland Aid in the four districts of Monze, Mazabuka, Kalomo, and Sinazongwe is to be undertaken. The evaluation will provide indicators on the extent of coverage of WASHE basic needs in schools and communities in the four districts and progress to date on basic needs activities; and indicators on the effectiveness of interventions.

These terms of reference gives a detailed outline of activities required to fulfil the objectives of the evaluation of the School Sanitation and Hygiene Education project in the four districts in the Southern Province.

3. OVERALL AIM OF THE MID-TERM REVIEW

To establish the extent to which the SHN project has met the objectives and planned outcomes outlined in the project document; document achievements, constraints and lessons learned over the 2000 to 2001 implementation period in order to inform future work in the sector.

4. OBJECTIVES OF THE MID-TERM REVIEW

To review the project design to examine whether the current activities can serve to achieve objectives and project outputs. Most specifically, are the activities necessary, are they sufficient, and is there an efficient monitoring and evaluation system?

5. SPECIFIC OBJECTIVES OF THE MID-TERM REVIEW

- Assess project relevance.
- Assess cost effectiveness.
- Assess project sustainability
- Assess project impact.
- Assess the programme management of the two approaches (UNICEF/D-WASHE and UNICEF/NGO/D-WASHE) to draw lessons for replication in similar future projects
- Assess efficiency of service delivery (including the training and training materials.)
- Assess the effectiveness of the monitoring and evaluation system.

Below are some suggested questions which the consultants might ask to assess the specific objectives of the Mid-term review.

5.1 Objective 1 Project relevance

Assess relevance of activities to achieve outputs and objectives.

- Are activities in line and relevant to objectives and outputs?
- Are activities implemented efficiently?

5.2 Objective 2 Cost effectiveness

Assess the cost effectiveness of the programme:

- Are activities cost effective (considering all costs in terms of funds and materials.)?
- What is the current expenditure to date? Is it in line with the annual budget?
- Has the money been used for intended objectives?
- Are there any anomalies, in terms of expenditure?

5.3 Objective 3 Project Sustainability

To assess the project sustainability and management and ascertain gaps in these areas.

- How are D-WASHES implementing the SSHE?
- Are ACOS area masons fulfilling their duties and how are they managing the implementation process?
- Capacity of communities in management of water supplies--is project management trickling down to community level?
- Are spare parts locally manufactured, any shifts towards local production?
- Availability of spare parts for boreholes and hand pumps-- are they affordable.
- Life span of latrines, effects of deterioration.
- Any moves towards community self-sufficiency.

5.4 Objective 4 Project Impact

To assess community attitudes of any changes in their water and sanitation needs in schools and communities and assess any indicators on behavioural change. As this project has only been running for two years, we are looking at process impacts of WASHE basic needs.

- Changes in water use pattern from unsafe to safe sources in schools and communities.
- Changes in latrine use and coverage.
- Changes in hand washing practices.
- Notable cleanliness of surroundings.
- Any reduction in sanitation related diseases.
- Any changes in women's roles in terms of water and sanitation (i.e. saved time)

5.5 Objective 5 Assess the programme management of the two approaches to draw lessons for replication in similar future projects (UNICEF/D-WASHE and UNICEF/NGO/D-WASHE approach)

- How are the SHN programme implemented in the areas managed by the D-WASHE with UNICEF and NGO support?

- What are the advantages and disadvantages of using this approach?
- What key lessons can we draw for using this approach in future?

5.6 Objective 6 Efficiency of service delivery

Assess type of capacity building and impact of capacity building of D-WASHES and V-WASHES (including the training and training materials, HRD)

- What capacity building programmes exist?
- What training tools are used?
- How have ACO's and area masons fulfilled their duties within respective communities, and have they received the relevant skills?
- Is training reaching down to the V-WASHES?
- Are there gaps in the capacity building and training methodology?
- Which PRA tools are used and how relevant are they?

5.7 Objective 7 Assess the effectiveness of the monitoring and evaluation systems

To examine how effectively monitoring and evaluation is used to inform the design and implementation of UNICEF supported work.

- How have baseline surveys on WASHE basic needs in the four districts informed the design of the hygiene and sanitation promotion programmes?
- D-WASHE and V-WASHE/ PTA and CTC's use what tools to monitor SSHE?
- How do communities and schools partake in the monitoring progress of SSHE?

6. DATA COLLECTION METHODOLOGY/TOOLS

Review of documents

A thorough review of documents will include two main types of documents: Reports of D-WASHES and UNICEF reports to donors. Particular use will also be made of the survey data collected in 200 and 2001.

The main documents will be on the project formulation, progress reports on the national, provincial, and community levels, that is GRZ/UNICEF and government documents dealing with the WASHE SHN project. The various donors, sponsors, and NGOs involved with the project will be reviewed in order to correlate their objectives and contributions in terms of the overall workings of the project.

Interviews with planners and organisations

A very important source of information will be interviews with key planners and organisers of the national, provincial, and community levels as well as with donors, government officials, and UNICEF and NGO (e.g. DAPP, Water Aid) staff. This information will be particularly

important for the more general project assessment of methodology, approach, management, and implementation. Additionally, it will provide the opportunity to investigate in more depth, the successes of the institutional arrangements established for the implementation of the WASHE programme.

Field Visits - selection of field sites

Given the large geographical area covered by the SHN programme, it is important to limit the evaluation to a certain number of sites in the four provinces in Southern Province.

7. OUTPUTS

The Report

The evaluation team (comprising two members: one international and one local consultant) will be responsible for completing the report, and the team leader (international consultant) will be responsible for bringing the separate chapters of the report together into a consolidated evaluation reporting and editing where necessary. The final draft of this report should be completed within three (3) weeks of the teams return from the field.

The report format will contain:

- An executive summary, which is no longer than three pages.
- Objectives of the evaluation.
- Methodologies used in evaluation.
- A chapter at the end of the report with all findings and specific recommendations on project. Design to improve effectiveness and efficiency and address sustainability issues.
- Project plans and terms of reference with all tools used for the evaluation, people spoken to, communities consulted, and evaluation team members.

Presentation of Findings

The evaluation team will present their findings and recommendations to the partners at the close of the evaluation. This will ensure immediate feed back of the major conclusions of the evaluation and involve both teams in an assessment of their work.

UNICEF/WASHE and its partners in planning for the second phase of SSHE will use this evaluation report. The report will serve as a learning experience with other country programmes, and to provide information for UNICEF's support to SSHE. It will also be used to inform Ireland Aid and other donors and relevant institutions of the lessons learned and experiences gained through out the implementation of the evaluation of programmes managed in Zambia. The report will also be given back to the districts for use in their future plans.

ANNEX 2

THE SCHOOL SANITATION, HEALTH EDUCATION AND NUTRITION PROJECT

1. PROJECT AIMS

The overall aim of the SSHE project is to improve water and sanitation in schools through its WASHE basic needs model, which calls for community participation in cleaning the surrounding environment in schools, increasing access to safe and accessible water supplies, and improving sanitary means of excreta disposal by providing latrines. The project also emphasises hygiene education by providing effective hygiene education programmes in the school curriculum. There is a strong emphasis on gender where women are integrated into all aspects of the programme.

2. OBJECTIVES

The overall objectives of this pilot project are:

To act as a pilot to help implement the National Sanitation strategy through schools.

To assist selected schools to be rendered girl friendly by improving the conditions of School Sanitation and Hygiene and

Assist Parent Teacher Association (PTA) to improve sanitation practices of communities in their own neighbourhood.

More specific objectives of this project are:

To target WASHE basic needs in 120 schools, 4,800 households, 28,800 people in 240 villages in the neighbourhood of these schools in Mazabuka, Monze, Sinazongwe and Kalomo districts in Southern Province:

Commitment generated at district level for school sanitation and Hygiene education.

Parent Teacher Association in 120 schools in 4 districts support to improve or construct school sanitation and hygiene facilities and improve behaviours in proper use and maintenance.

3. MAIN ACTIVITIES AND OUTPUTS:

3.1 Improve planning for schools sanitation and hygiene at district and school level through training and advocacy:

The following are the activities:
Promotion of School Sanitation and Hygiene education Guidelines.
Preparation of Multi- Year plan at district level.

Preparation of annual plan for school sanitation and hygiene education by Parent Teacher Association and Child groups.

3.2 Improve Sanitation Facilities and Hygiene Practices at Schools.

The following are the activities:
Promotion of improved affordable standards and designs for WASHE facilities.
Orientation of parents Teacher Association and Children Groups to undertake health Education activities.
Construction of school toilets, rehabilitation and construction of water pints, safe drinking water facilities, Safe transportation and handling of drinking water, hand washing facilities and refuse pits.

3.3 Improve Sanitation Facilities and Hygiene Practices at house hold level.

The following are the activities:
Orientation of Parent Teachers Association to Undertake health education activities
Promotion of affordable standards and designs for WASHE facilities
Targeted subsidy to female-headed households and those caring for orphans
Promotion of impregnated bed nets
Health education on HIV/AIDS

4. PROJECT AREAS AND TARGET GROUP

This project covers four districts (Mazabuka, Monze, Sinazongwe and Kalomo) in Southern Province. These four districts have a strong D-WASHE program supported by UNICEF since 1995. The District Education Officer and his staff are active members of the D-WASHE.

In the first year, based on the results of school sanitation survey that will be under taken in the initial stage of the project, in each district 30 schools (10 per each year) in three nearby constituency will be selected. Priority will be given to schools with ongoing "PAGE" and or the "Child to Child" program from the Ministry of education (MOE). A total of 120 schools will be targeted in the three years period.
80 villages per year, 240 villages in three years, will be selected from the catchment area of these 120 schools. The villages selected preferably should have well-established and trained Village WASHE committees. In each village on an average about 20 households will be targeted to receive subsidies from the project. These households will be mainly the women headed households, child headed households and households that are providing support to the orphans and households with mothers with infants or children with under five ages who are highly vulnerable for spread of infectious diseases. It is envisaged that about 4,800 households or about 28,800 disadvantaged people will have the direct benefit from this project.

5. IMPLEMENTATION STRATEGIES AND ACTIVITIES

5.1 To increase access to safe water,

District and Village WASHE committee's capacities are being strengthened to assess WASHE needs in schools and communities by developing Village action plans and successfully acting on them.
Materials and technical support are being provided for the rehabilitation and construction of safe and convenient water supply and facilities in 120 schools and 240 villages.
Community capacities have been strengthened to manage, maintain, and operate community water supplies.

5.2 To increase sanitary means of excreta disposal:

Community friendly technologies are being used to construct latrines.
Teachers /student and parents are taught on how to maintain latrines.
Districts and communities are being supported in their development and implementation of communication strategies designed to promote domestic and personal hygiene.

5.3 To improve sanitation and hygiene practices in schools and communities:

Parent Teacher Associations are oriented to undertake health education.
Child to child Groups have been formed and strengthened in schools, and two professional drama groups have written several scripts on hygiene promotion and education.
Dissemination of materials is under way.
Child to child groups have been formed to educate villages and neighbourhoods especially women, on WASHE behaviours and practices using visual materials, has initiated visits.
Children become teachers: Children are replicating behaviour changes they have learned and are slowly influencing home environment for better hygiene practices of house hold members.
Teachers are integrating health with other subjects such as mathematics and social science.

5.4 Sustainability Strategies

SSHE activities address poor community ownership by involving school and village committees (PTA's and V-WASHEs) in all stages of the project planning. Furthermore, it supports their efforts by providing appropriate skills training to area masons, area community organizers and V-WASHEs, on sills such as the installation and repair of hand pumps, making concrete liners, and construction of latrines. In addition, the trainees are given different types of melds and tool sets, such as mason kits and special tools for hand pumps. The trainees are then expected to continue to sell their services to communities even when the project is closed. This has worked out well in the neighbouring districts, where more than 90% of the hand pumps remain in operation and new latrines are being built. Along with this, the project is encouraging communities to collect user fees and is providing them with the skills to manage these properly. This will increase sustainability of the facilities. Additionally, the area community managers and masons are being treated as selling agents on selling WASHE materials.

5.5 Strategy for capacity building

SSHE uses participatory methodologies for training and capacity building with a view of encouraging demand driven, bottom up approaches. These participatory methodologies allow for consultations and full involvement of all actors. UNICEF has spearheaded this participatory methodology, modelled around the PHAST initiative.

At district level, the D-WASHE is trained on participatory planning in assessing and analysing their situation, prioritising needs and facilitating sub district participation in SSHE programmes. At sub-district level, extension staff namely Area Community Organizers (ACOS) and environmental health technicians are trained on participatory methods on information dissemination on WASHE basic needs. At the village level, the training of village WASHE committees is based on programmes that enhance community management of facilities and services. Specific PRA tools used in SSHE capacity building are:

The village house hold card, developed with GRZ and DAPP, which is a plan on how households can improve their water /sanitation and hygiene situation.

A PRA tool kit, consisting of 3 different sanitation ladders, water, hand washing, and sanitation, which helps communities identify their own situation on a scale of various options.

An Area Community training manual consisting of WASHE basic needs information including technical manuals on pit latrine construction.

Capacity building is main streamed into all sectors of the programme. The PHAST approach has been main streamed into the main participatory framework for WASHE basic needs, in the next country programme, 2002-2006.

6. COLLABORATING PARTNERS:

The main collaborating partners are the District WASHE Committees who develop their own annual plans on how to implement and monitor SSHE in schools. These plans are developed in a participatory way, based on the plans of the V-WASHE Committees. NGOs implement part of the program. The D-WASHE along with the DEO prepare the annuals D-WASHE plans which clearly reflects the component of promotion of sanitation through schools. These plans with budgets are split by three Phases of four months each. The DEO submits these plans with detailed budgets to the Ministry of Education with a copy to UNICEF. For each Phase, upon approval and request from the Permanent Secretary, Ministry of Education, UNICEF transfers funds to the DEO in an account opened for these project activities. The DEO provides funds and materials for the implementation of activities

UNICEF Project Officer responsible for Southern Province will make monthly visits, provide support to the D-WASHE, the DEO, and his staff, and ensure that progress is achieved as planned.

Annex 3 – REFERENCE DOCUMENTS

Ministry of Local Government Report/Understanding the WASHE concept Strategy
Ministry of Local Government Report on WASHE basic needs in 4 districts in Southern Province
GRZ Multiple Indicator Survey Report: In process
Rapid Assessment of School Sanitation and Hygiene Education (SHN)
A Review of UNICEF's Borehole Drilling programme from 1995-2000
A draft report on the JIU Mission to Zambia-In process
GRZ/UNICEF Master Plan of Operation 1997-2001
National Program of Action for Children in Zambia
Prospects for Sustainable Human Development in Zambia
GRZ/UNICEF Yearly Project Plans of Action and Budgets
Ministerial yearly plans, budgets, reports, surveys, statistics
UNICEF Donor reports
GRZ/UNICEF Mid Year reports
GRZ/UNICEF Annual Review reports
UNICEF overviews on expenditures
Annual District WASHE Plans and reports
Annual DDCC Plans and reports
Annual NGO Plans and reports
V-WASHE Plans and reports
Evaluation reports from other donors (Irish Aid, Norad, GTZ, SNV, others)
Evaluation report Use of local drama groups
Internal review 1997 (Pamodzi Workshop 6-11-1997)
Review Communication. Information Systems UNICEF supported WASHE program (June 1998)
Files D-WASHE Committees
Files NGOs
Files V-WASHE Committees
NGO Training Manuals
WASHE Training manuals from CMMU
WASHE Training manuals from UNICEF
UNICEF Guide for Monitoring and Evaluation
M/E from a gender perspective (SNV)
Mainstreaming gender in WES Programming (UNICEF)
Statistics and reports from Rural Health Centres, CBOH, MOH
Living Conditions Monitoring Surveys (CSO, FHANIS)
Southern Province Household Food Security Program: records/reports/surveys

Annex 4 - PEOPLE CONSULTED

No.	Name	Organisation	Position
1.	Sham Mathur	UNICEF, Zambia	Programme Officer
2.	Kabuka Banda	UNICEF, Zambia.	Project Officer
3.	Giveson Zulu	UNICEF, Zambia.	Project Officer
4	Alfred Daka.	WFP, Zambia	VAM Officer
6.	Angelline Rudakubana	WFP, Zambia	Programme Officer
7.	Peter Lubambo	MLGH,DISS	Director
8.	Hope Nkoloma	MLGH,DISS	Co-ordinator, RWSS
9.	Ngosa.Howard. Mpamba	MEWD-DWA	Officer In Charge
10.	Peter Choola	MEWD-DWA	Deputy Director
11.	Jimmy Keller	Water Aid, Zambia.	Country Director.
11.	CatherineNkonde Phiri	Ministry of Education(HQ)	SHN Component Manager
12.	Ruen H Hamakuni	Mazabuka Municipal Council	Town Clerk
13.	Hillary Hagwagwa	Mazabuka Municipal Council	Director of Finance D-WASHE Chairperson,
14.	Jonathan Kasaro	Dept of Water Affairs	Officer in Charge. D-WASHE V/Chairperson.
15.	Ms E Kantoolo	Community Development	D-WASHE V/Treasure.
16.	Ms F Busiku	Community Development	Deputy Director Planning, D-WASHE Member
17.	Nervous Nsansaula	DAPP	Co-ordinator
18.	Mr Malambo	Magobbo Primary school	Head teacher
19	Ms Mbozole	Maggobbo Primary school	Contact Teacher, SSHE
h	Silvester Malaya	Moggobo Clinic	EHT, Luyaba Health Centre.
21	Barnabus Mweemba	D-WASHE	Area Community Organiser
22	Chinkuli Dicks	D-WASHE	Area Community Organiser
22	Hopeday Chinzila	DWA	D-WASHE member
23	Ventor Chisowa	Monze district Council	D-WASHE Treasurer.
24.	C.Muyumbana	Monze District Health	EHT, Monzwe Clinic
24	Calistus Mweele	Monze District Council	DPOD,WASHE Chairperson.
25.	Ellise Nsorensen	DAPP, Monze	Project Manager, DAPP.
26.	Ahmed Uppakila	DAPP, Monze.	Monze district Co-ordinator.
27.	Joseph Chibbabuka	Kaumba Primary School	Head Teacher
28.	Ndhovu Haazeele	Kaumba Primary School	PTA chairperson

29	Mildred Moonga	Kaumba Primary School	Contact Teacher
30.	Mr Moola	Mujika Primary School	Head Teacher
31.	Mr Chimpuka	Mujika Primary School	Contact Teacher
32.	Kilian Sandala	Community.	Area Leader/ACO
33	Steve Chinzila	Community.	Area Leader/ACO
34	Jostas Ngandu	Community.	Area Leader/ACO
35	Paul Johnson Kasongo	Ministry of Health	EHT, Mwanza Clinic., Monze
35	Herbert Mwaanga	Katete Distrcict.	UNICEF,M&E Officer SP.
36	Cynthia Mulenga	DDPO, Kalomo District Council	, D-WASHE Chairperson.
37.	Zulu Edward	Director of Works, Kalomo District Council	D-WASHE secretary
38	Timothy Kaluba	R &D advisor, Red Cross	D-WASHE member
39	Ngalande Kingsley	DDCO, MCDSW	,D-WASHE Member
40	Gilbert Juunza	Agriculture Specialist	D-WASHE Member
41	Mr Bosthma Daniel John	WVI,Kalomo	D-WASHE Member
42	Mr Sivwimi	Bilili Primary School	Head Teacher
43.	Siachunda	Bilili Primary School	Teacher
44	Sara Nacha	Bilili Primary School	PTA member
45	Mr Hansingo	Mabuyu Primary School	Teacher
46.	Oliver Muuka	CS,Sinazongwe	D-WASHE Chairperson.
47.	Peter Mweetwa Sikabenga	C.O.P, Sinazongwe	D-WASHE Secretary.
48.	Oliver Pelete	D.A,Sinazongwe	
49	Mr Banda	Fisheries Dept	D-WASHE Member
50.	Fred Mwiiya	DEO, Sinazongwe.	DD-WASHE Member
51	Sikaswe Alfred	Sinazeze Basic Sch	Head Teacher
52.	Masiliso Kufekisa	Sinazeze Basic Sch	Contact teacher
53.	Maurice Simooya	Community	Area Community Organiser
54.	Himalala Clarence	Ministry Of Health	EHT, Sinazeze Clinic.
55	Peter Sikabenga	Sinazeze Basic School	PTA Chairperson.
56.	Maggobbo Peer Educators	Mpaggobo Primary School	
57	Kaumba Peer educators	Kaumba Primary School	
58	Mujika Peer Educators	Mujika Primary School	

Annex 5 - ABBREVIATIONS

AIDS	**Acquired Immune Deficiency Syndrome**
ACO	**Area Community Organiser**
CBOH	**Central Board of Health**
DAPP	**Development Aid From People To People**
DEO	**District Education Officer**
D-WASHE	**District Water, Sanitation and Hygiene Education Committee**
DDCC	**District Development Co-ordinating Committee**
DISS	**Department of Infrastructure Support Services**
DWA	**Department of Water of Affairs**
DDPO	**District Development Planning Officer.**
DDCO	**District Development Co-ordination Officer**
DA	**District administrator.**
EHT	**Environmental Health Technician**
FHANIS	
GRZ	**Government of The Republic of Zambia.**
GTZ	**Germany Technical Corporation to Zambia.**
HIV	Human Immune-deficiency Syndrome
IA	**Ireland Aid.**
ITN	**Insecticide Treated Net.**
MCDS	**Ministry of Community Development and Social; Services**
MLGH	**Ministry of Local Government and Housing**
MCDSS	**Ministry of Community Development and Social Services**
MEWD	**Ministry of Energy and Water Development.**
MOE	**Ministry of Education.**
MoH	**Ministry of Health**
NPDP	**Northern Province Development Programme**
NGO	**None Governmental Organisation.**
NORAD	

SNV	
PRA	**Participatory Rural Appraisal**
PAGE	**Programme for Advancement of Girls Education.**
PHAST	**Participatory Hygiene and Sanitation Transformation**
PRA	**Participatory Rural Appraisal.**
PTA	**Parents Teachers Association.**
P-WASHE	**Provincial Water, Sanitation and Hygiene Education.**
R & D	**Risk and Disaster Officer**
SSHE	**School Sanitation and Hygiene Education**
SHN	**School Health and Nutrition.**
UNICEF	**United Nations Children's Fund**
VAM	**Vulnerability Assessment and Mapping.**
VAP	**Village Action Plan**
V-WASHE	**Village Water, Sanitation and Hygiene Education Committee**
WASHE	**Water, Sanitation and Hygiene Education**
WES	**Water and Environment Sector.**
WFP	**World Food Programme**
WHO	**World Health Organisation**
WSS	**Water and Sanitation Sector**

Annex 6

A summary of the impact of improved sanitation and hygiene behaviour

1. **Lower Mortality:**

   Improvements in sanitation will reduce the number of deaths due to diarrhoea by 65%.

   In real terms this means that if there are currently 100 deaths per month due to diarrhoea in the affected provinces, by providing improved sanitation facilities 65 lives will be saved. Over a period of a year this would equate to the prevention of 780 unnecessary deaths. This fact highlights the urgency of the intervention.

   While Cholera is seen as a waterborne disease with intervention strategies normally focused around the provision of clean safe water. Experience has shown that for every one outbreak of cholera that is waterborne, two outbreaks are not waterborne. Therefore **improvements in sanitation could reduce cholera by 66%** in affected communities, given the current threat of such outbreaks among the target population such a reduction would have a major impact not just on the prevention of deaths but also on the provision of health care facilities and resources.

   What improved sanitation actually does is that it helps to reduce the severity of the disease and results in a decline in diarrhoeal, infant and total child mortality.

2. **Lower Morbidity (incidence & prevalence):**

   Most people live at high levels of exposure to pathogens (disease carrying organisms). Sanitation prevents these organisms from gaining access to the environment and thus decreases exposure to pathogens, such that the number of cases of disease can be reduced. This reduction is achieved by reducing the number of episodes that occur as well as reducing the severity of the episodes when they do occur. In other words improving sanitation will reduce the amount and harshness of the disease.

   In the affected or target population for this intervention, improved excreta disposal would have an impact on four major diseases namely, **diarrhoea, roundworms, hookworms, and bilharzia.** While reduction of these diseases is very important in children they also afflict adults; therefore reductions in the number of cases will benefit all members of households and communities.

   The provision of improved sanitation facilities could reduce the number of cases of these diseases in the communities as follows:

   - Cases of **diarrhoea** could be reduced by **36%**
   - **Roundworm** (Ascariasis) could be reduced by between **29% - 88%**
   - **Bilharzia** (Schistosomiasis) could be reduced by **69% - 83%**
   - **Hookworm** could be reduced by between **4% - 26%**

As the level of sanitation improves (from no sanitation, to slabs, to latrines, etc.) the magnitude of the impact on health will also improve. There is a dose-response relationship between the level of intervention and its impact on health. In other word if we choose an intervention, which will result in 10% improved sanitation coverage the impact on the cases of the above listed, diseases will be very small. It is estimated that in order to attain maximum impact a sanitation coverage level of 75% is necessary.

3. **Better Nutrition:**

Severe and moderate stunting could be reduced by up to 39% if improved sanitation is made available. This is because diarrhoea and worm infections can result in poor growth through decreased absorption of nutrients and an increased requirement for food. This contributes to general protein-energy malnutrition as well as specific nutrient deficiencies. (Vitamin A from roundworms and iron from hookworm and bilharzia).

The provision of improved sanitation facilities would result in increased heights and weights among children. Such a programme would compliment other projects which aim at providing basic foods to children. The provision of improved excreta disposal facilities would **decrease the risk of stunting in one in three children who are already vulnerable** and would have a major long term impact as stunting is not something which can be reversed. Improved nutritional status also increases the rate of child survival, as healthier children are less susceptible to other diseases.

4. **Cleaner Environment:**

Environmental cleanliness can greatly impact on the transmission of diseases. Once in the environment, pathogens will not only survive and disperse but also thrive in food and other items that could be ingested by young children. Improvements in sanitation will result in a cleaner environment and reduce the risk of exposure to harmful pathogens. In fact **the impact of improved water supplies, which have been provided or disinfected, may be negated** because of the absence of improved sanitation facilities, as disease-carrying organisms will get into the water supply.

The provision of improved sanitation facilities will assist in **the physical containment of disease carrying organisms**. Normally the number of organisms transmitted depends upon the routes of transmission, which, are available, and the opportunity for growth and the most effective way to do this is by containing excreta through the provision of improved sanitation facilities.

In order to achieve maximum health impact and contribute towards a cleaner environment 75% coverage should be sought. As even if one in four families do not have improved excreta disposal facilities overall environmental cleanliness will be improved. Less than 75% coverage will increase environmental contamination and the rate of stunting and incidence of diseases will be higher.

5. **Safer food/water supplies:**

   Improvements in excreta disposal can result in access to safer food and water supplies. This is due to the fact that the disease carrying organisms are prevented from entering the water and food transmission routes. As previously stated improved sanitation can reduce diarrhoea by 36%. Improvement in water supplies can reduce diarrhoea by 15% - 20% while improved food hygiene can reduce transmission by 15% - 70%. In order to achieve a 70% reduction in the incidence of diarrhoea it is necessary to combine all interventions. **Improved sanitation will result in the availability of safer food and water and thus greatly contribute to a 70% reduction in diarrhoeal transmission.** Improving excreta disposal facilities is a primary intervention, which will greatly impact on all other health interventions in an area.

6. **Better learning and retention:**

   Because improvements in sanitation results in healthier and better-nourished children their ability to learn and retain information is greatly improved. Children that do survive illnesses such as diarrhoea, cholera and even roundworm and bilharzia infections are often left underweight and stunted both mentally and physically. Such children are even more vulnerable to more deadly diseases and are too weak and tired for any form of learning.

   Protein-energy malnutrition, which could be prevented in 39% of the children through the provision of improved sanitation facilities increases this lethargy and results in lack of concentration by the affected child. This in turn will have a major impact on the child's educational performance. Therefore, **without the provision of sanitation facilities in the home and school four in ten children will not reach their full educational potential.**

   Of equal concern educationally are Vitamin A and Iron deficiencies that can occur as a direct result of roundworm, hookworm and bilharzia infections and can have an equally damaging effect on the ability of the child to learn and retain information. Iron deficiency can result in Anaemia, which will leave a child listless and lacking in energy and therefore unable to focus on the task of learning. Vitamin A deficiency can ultimately lead to blindness and be responsible for reduced vision that hampers the child's learning ability. Because sanitation improvements can reduce the cases of infection of these diseases it therefore can have a very positive impact on childhood learning.

Annex 7 Guide for using participatory tools for CCD

Triple A approach