



SOCIAL WELFARE APOSTOLATE DIOCESE OF KUMBO

CARITAS KUMBO

P. O. BOX 115, KUMBO, NORTH WEST REGION REPUBLIC OF CAMEROON

Email: diswe.kumbo@gmail.com

State of Water Sanitation and Hygiene in Six Primary Schools in the Kumbo Diocese Cameroon



Togho Lumumba Mukong

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Anembom Consulting Cow Street Nkwen Bamenda P.O Box 5170 Nkwen-Bamenda

Tel (+237) 6 98 81 88 84, 679 837720

Email: anembomconsulting@yahoo.co.uk

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Abbreviations

KAP	Knowledge Attitudes and Practices
JMP	Joint Monitoring Programme
SODIS	Solar Disinfection
WASH	Water Sanitation and Hygiene
WinS	WASH in Schools

Acknowledgement

This work wouldn't have been possible without the support and contributions from many people and institutions. It has been in the strategic plan of Anembom Consulting to promote sustainable WASH activities in primary schools, but the actions towards this has been slow in happening because of the lack of financial means. This same dream is shared by the Social Welfare Apostolate of the Diocese of Kumbo. This dream is becoming true through the collaboration of these two development oriented institutions.

This work has been possible through the financial support from the Kumbo Diocese Cameroon, who through an assignment in the villages of Bamngam, Kungi and Moh bridged the distance between us and these communities in terms of time and resources.

Our gratitude also goes to the Head Teachers and Teachers who opened their schools to us and allowed their pupils to be interviewed. To the pupils for their time and patience with us we say thank you

In the same line we wish to thank the data collectors for their diligence – Asenge Eric & Albert Tamanjung (of Anembom Consulting), Biy Pamela & Kemuka Yenika Karen (Caritas Kumbo).

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Fr. Daniel Ache
Coordinator Social Apostolate
Diocese of Kumbo

Executive Summary

The situation of Water Hygiene and Sanitation (WASH) in schools is poorly reported and the level of progress in that domain is uncertain. However, educationists in Cameroon agree that the situation is bad, many schools don't have access to potable water, do not practice any form of water purification and hygiene and sanitation education is too theoretical.

This report presents the findings of the state of WASH in six schools in Bui and Donga Mantung Divisions (Kumbo Diocese). The data for this study was collected between February and March 2015 involving 6 teachers and 117 pupils. The schools and pupils were selected based on the means available and proximity.

The results are not intended to depict the situation with the Kumbo Diocese or the North West Region, rather it is meant to describe the state of affairs of these educational institutions and propose remedial actions. To this end the report found out the following problems relating to WASH in these schools.

Problems with respect to water in schools

- There are no potable water sources in or near any of the schools.
- The water management and distribution system is inadequate to provide or maintain water in potable state.
- Though schools have buckets for storing drinking water, the buckets are dirty as well as the scuppers used for distributing water to drinking cups.

Problems with respect to Sanitation Facilities

- 2 schools latrines lack walls and doors reinforced to ensure easy cleaning, privacy and security
- 3 schools need completely new toilets
- All schools lack proper toilet maintenance and cleaning strategies
- There are no hand-washing facilities close to latrine facilities
- There are no urinals

Problems with respect to KAP

- Poor knowledge of causes and means of preventing diarrhoea
- Poor link between schools and parents for promotion of hygiene at home

Problems with respect to Communication

- The level of messages remembered is very low
- Schools have no prepared hygiene messages targeted at the pupils

To provide long lasting solution to these problems and develop a base for continuous improvement, not only for these schools but for all schools in the region, the study proposes the following:

- Prepare an inclusive programme package for all the six schools that tackles individual school concerns
- Collaborate with other stakeholders to build a sound data base for WASH in schools
- Continue study at individual school level

Finally the study identifies key stakeholders in this domain to include (not exclusively):-

- Basic education authorities within the region
- Municipal Authorities
- Proprietors of educational institutions
- Parent Teacher Associations and
- Civil Society Organisations/Faith Based Organisations

1 Introduction

Water Sanitation and Hygiene (WASH) in Schools seeks to contribute towards making school environments, primary and nursery, schools child friendly. Such child friendly school environments

- Provide children with improved and well managed sanitation facilities (toilets, hand washing stations and urinals) separated for boys/girls, male/female teachers and secure and safe to use;
- Children have access to adequate quality and quantity of water for various purposes – drinking, cleaning and gardening among others;
- Promote hygiene education through teaching and practising of good hygiene behaviour especially hand washing with soap at critical times.

1.1 Why WASH in Schools

Children spend more time in school than anywhere else in a year. In these environments they are found in places with high population densities and the biggest possibilities of interaction and human body contacts. In these conditions, communicable diseases spread fast. Lack of good sanitary conditions contributes to spread of diseases especially diarrhoea and other hygiene related diseases. Having schools that promote WASH means drop in diarrhoea and other hygiene disease cases. Studies show that:-

- Disposing of faeces safely can reduce diarrhoea by 32 percent.
- Drinking safe water can reduce diarrhoea by 39 percent.
- Washing hands with soap at critical times can reduce diarrhoea by 44 percent.

So more children can stay in school

Further, successful WASH in Schools means

- Better school attendance rates as more children will be saved from diarrhoea and hygiene related diseases. In addition pupils will be spared the trouble of going long distances to ferry water to school – more time for learning.
- Learning of proper hygienic practices leads to gains in life-skills, which as adults the pupils will transfer to their own children. Children transfer lessons learnt to their communities more easily, so the community gains from WASH in schools.
- Girls will feel more save and secured to use toilets and will attend school even during menstruation.

The UN General Assembly recognizes water and sanitation as a human right, providing political impetus to achieving universal access to water, sanitation and hygiene (WASH) services. Global progress towards realizing these rights at the household level has been tracked and reported by the WHO/UNICEF Joint Monitoring Programme (JMP) for Water Supply and Sanitation for over 20 years.

However, progress for WASH in Schools (WinS) remains largely unmonitored at the global level. As a consequence, the perceived importance of WinS among policymakers may not be as high as it could be. (*Advancing WASH in Schools Monitoring*, 2015)

1.2 Background

Despite the proven gains of providing water, sanitation and hygiene to schools, many governments fail to lay emphasis on its provision, especially in primary schools. Over the years countries have begun reporting on the state (progress) of WinS amongst them Cameroon. From various reports Cameroon has less than 50% coverage in terms of water and sanitation provision in schools and less than 37% coverage in hygiene. Though a poor national average the figures mask the disparity between regions, rural and urban schools and private and public schools among other differences.

The national standard for WASH in schools is not clear to many even to school managers and administrators. This makes it difficult to track progress or lack of it at local levels such as community or municipal government levels. Lack of a standard basis makes it difficult to compare WinS situation between schools and across communities.

Within the ongoing decentralisation process in Cameroon the management of primary schools is pushed more and more in the ambit of municipal councils. Though councils have been given this task, they lack the skilled man power and financial resources to meet the growing challenges of school management. Given the many challenges that decentralisation has brought to council executives, water sanitation and hygiene in schools is an issue that has been put in the cooler.

Within these circumstances, if nothing is done, no action will be taken on WinS. It is within this backdrop that this study was undertaken to bring out some truths about the state of water sanitation and hygiene in primary schools.

Anembom Consulting has been interested in promoting WinS so at any opportunity, it tries to bring to light the prevailing situation in primary schools. At the end of this study a database will be ready for the six schools in the study. This dataset is not fixed but will be used as a trigger for discussion on how to develop a pragmatic and logical frame for collecting information on WinS, with or without a national Education Management and Information System (EMIS).

1.3 Goal and Objectives of the Study

The overall goal of this study is to contribute towards the development of concerted strategy in improving the level water sanitation and hygiene in schools. This goal was intended to be realised through a limited Knowledge Attitudes and Practices study of pupils from the concerned schools. The study also had as objective the creation of a baseline from which progress can be monitored.

Finally the results of the study results of the study will be used as inputs for the development of WinS projects in the various schools.

To make these contributions the following issues were assessed.

- The knowledge attitudes and practices of pupils with respect to WASH
- The state of water and water management
- The state of sanitation
- Hygiene and
- Communication

1.4 Methodology

The study was carried out with the help of structured questionnaires that were administered by trained interviewers with experience in administering questions. One questionnaire was directed at Head Teachers to collect data on water supply to the school, sanitation facilities and hygiene. The second questionnaire was administered to the pupils to collect data on their knowledge attitudes and practices with respect to WASH.

The schools targeted for this project and the number of pupils interviewed, were not selected based on any scientific criteria. The schools were selected because they are found in villages where the research team was carrying out another (similar) assignment and all primary schools in these villages (Bamngam, Kungi and Moh. The number of pupil interviewed was based on the limited finance and time.

The data was collected over a period of 4 weeks from the end of February to the end of March 2015. Data collection per school was done on the same day. Four interviewers (2 female and 2 male) worked with the pupils. 4 pupils were selected from each class, 2 boys and two girls. The selection of the 4 was done by chance.

1.5 The Target Population

The schools targeted for this study are six primary schools all found in rural areas of the Bui and Donga Mantung Divisions (this area corresponds to the geographic limits of the Kumbo Diocese). In terms of proprietorship, 3 schools are owned by the Government of Cameroon, 2 by the Catholic Education Authority and one by the Presbyterian Church in Cameroon. These are all the schools in the villages. Bamngam has one school (Government School), Kungi 3 schools (Catholic School, Government School and Presbyterian School) and Moh 2 schools (Catholic School and Government Schools).

The schools have a total population of 913 pupils with 443 male and 470 female pupils; with 30 teachers; female teacher make up two thirds of the teaching staff. There are 30 classrooms between the schools giving a pupil density of 30 per classroom. The study targeted 226 pupils but only 117 respondents were reached, giving percentage coverage of 13% of the total population.

The respondents came from all the levels in the schools with the senior primary accounting for the 37% followed by junior primary 34% and the middle classes making up only 27% of total respondents.

In terms of age, the majority are between 5 to 10 years (70%) those between 11 – 15 years make up 21% and 16+ were 9%.

The characteristics of the respondents are presented in tables 1 to 3.

Table 1: School Population and Infrastructure

<i>Students and Teacher Population</i>	<i>Male</i>	<i>Female</i>	<i>Total</i>	<i>Ratios</i>
Pupils	443	470	913	
Teachers	12	18	30	1:30
Total number of classrooms	30			1:30
Average number of pupils per classroom	30			

Table 2: Class Distribution of Respondents

Class		
Classes 1 - 2	40	34%
Classes 3 - 4	34	29%
Classes 5 - 6	43	37%

Table 3: Age Distribution of Respondents

Age of respondent	117	100%
5-10	82	70%
11-15	24	21%
16+	11	9%
	117	100%

1.6 What the Study Captures

‘The lack of quality data on WASH in Schools is a significant barrier to identifying children’s WASH needs, establishing and carrying out effective programmes, and monitoring progress.’ (Raising Even More Clean Hands: Advancing Health, Learning and Equity through WASH in Schools, 2012)

This statement is true, not only for WinS but for many other development issues, especially in Africa. The data used in this study is reliable and verifiable. As a first attempt it will change over time in terms of format and presentation as much as others share their thoughts and experiences with us. The study captures information on water, sanitation, hygiene and disease (diarrhoea) prevalence and disease management.

Table 4: Parameters and Indicators

Component	Parameters	Indicators
Water	Is water available in the school, is the quantity enough for pupils and teachers, is it safe for drinking is water treated	<ul style="list-style-type: none"> i. Functionality of the taps ii. The quantity iii. The quality iv. The treatment v. Distribution system vi. Storage
Sanitation	The availability of toilets, number of functional toilets for girls, boys and teachers	<ul style="list-style-type: none"> i. Quantity (number) ii. Type iii. Gender (girls, boys) iv. Quality
Hygiene	Functional hand-washing facilities and soap (or ash) and hygiene is taught	<ul style="list-style-type: none"> i. Functionality (functional) ii. Soap (soap/ash) available iii. Hygiene education (hygiene is taught) iv. Hand washing reminders v. Community school partnership

<i>Component</i>	<i>Parameters</i>	<i>Indicators</i>
		in hygiene promotion
KAP	Disease, Morbidity, & Management	i. Number of diarrhoea cases ii. Management iii. Causes and prevention
	Handwashing Practices	i. Critical Handwashing times ii. How iii. With what iv. Why
	Hygiene Messages & Sources	i. Messages received ii. Usual channel iii. Preferred channel

1.7 Limitations

Given the limitations of finances and time, the study covered only 3 villages and six schools. It is also a first study on WinS by the team as such it serves more as a pilot than a full scale study. The study results cannot be used to draw inference on the state of WASH in schools in the divisions or region. However, it is clear that the study can act as a starting point to generate debate as well as build programmes for the schools covered in the study.

The study from conception failed to capture the level of disability among the pupil and teacher populations. This should be taken into account in defining any future baseline framework.

2 Findings

2.1 Water

None of the schools under study has water in or near its campus. Water is sourced from nearby unprotected springs and streams. Though these sources are unprotected and the water drawn is used for drinking and cleaning. Though the water is unsafe, only 2 schools treat water before consumption using the SODIS (solar disinfection) method and boiling. The other 4, (66%) do not practice any form of water purification.

Among the schools, 4 schools provide drinking water in the classes in buckets. Water for drinking is served with a scooper and to drinking cups. Given the distance to carry water and the limitations of good water drinking containers (clean buckets with covers) the water is not adequate for daily use. For the two schools that don't have drinking water in classrooms, children bring water from houses in transparent bottles for drinking. In one of these schools the water is

treated using the SODIS method. Bringing water to schools is not compulsory so having adequate water is not guaranteed.



Drinking container in a school though with lids but dirty – how potable is the water?



Clean drinking buckets with lids and special scoopers for drawing water

The drinking containers in all schools were dirty at the time of the study. Given the doubtful sources of the drinking water and the poor handling, the pupils are consuming unsafe water.

2.1.1 Problems with respect to water in schools

- There are no potable water sources in or near any of the schools.
- The water management and distribution system is inadequate to provide or maintain water in potable state.
- Though schools have buckets for storing drinking water, the buckets are dirty as well as the scuppers used for distributing water to drinking cups.

2.2. Sanitation

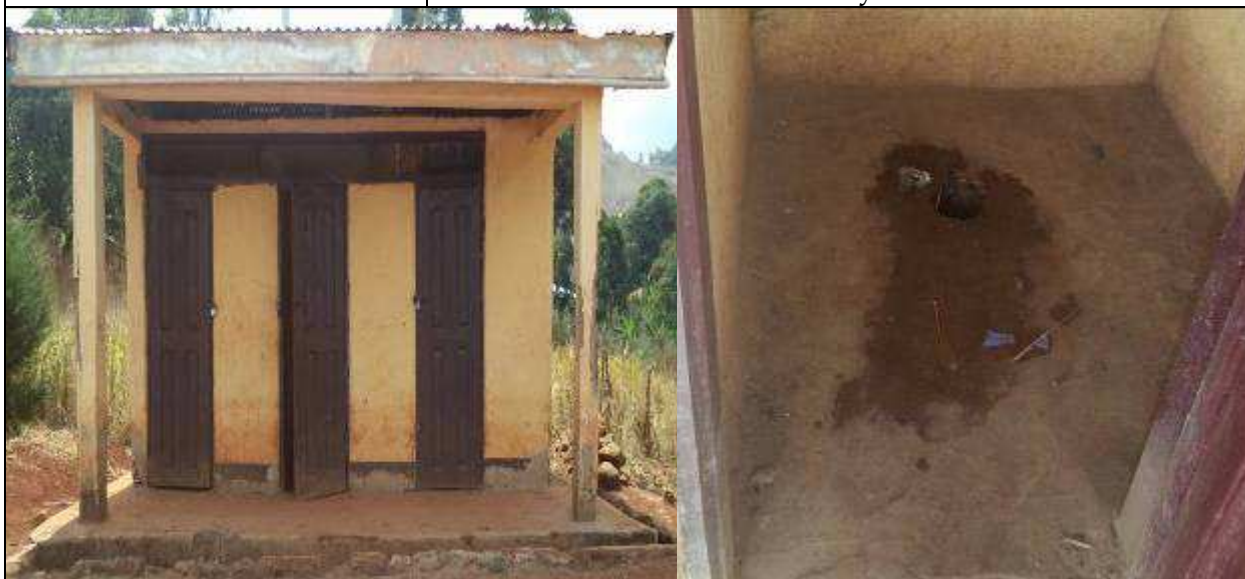
Sanitary facilities in primary schools in Cameroon are generally inadequate as depicted in these schools. There are no urinals and no organised solid waste management programme.

Although all the schools claim to have latrines, the quality of the latrines leaves much to be desired. In three of the school latrines have walls; one well plastered, one is built with zinc and the other with sundry blocks but not plastered. The others have no walls. Of the 3 that have walls there is a roof over each but only one has doors that can be locked from inside. No latrine facility has any hand-washing facility nearby. By JMP standards, only GS Bamngam has a proper latrine.

Solid waste management is not coherently managed in any of the schools. In all the six schools, the head teachers say the garbage is dumped in a pit and biodegradable waste is used for compost. In practice this is not so as the pupils gave different answers to the handling of solid waste such thrown in the bush, or scattered anywhere.

2.2.1 Presentation of the State of Latrine Facilities in GS Bamngam

Government School Bamngam	
Toilet Characteristic	Comments
Walls	Good walls plastered and painted
Roof	Good and permanent roof
Floor	The floors are cemented but are dirty with faecal material, anal cleaning material and urine visible on the floor
Doors	Permanent doors with locks, offers security and privacy for users
Separation of users	The toilet use is separated for boys, girls and teachers. Both female and male teachers use the same toilet.
Hand-washing facilities	No nearby hand-washing facilities
Maintenance	Poor maintenance of the facility



Government primary School Bamngam the only school in this study that has a modern pit latrine with doors, with toilets separated for boys, girls and teachers. But the floors are dirty.

Recommendation: The school needs a thorough toilet cleaning programme that is not used as punishment for pupils but rather as lesson on cleanliness, responsibility and good hygiene practice.

2.2.2 Presentation of the State of Latrine Facilities in GCS Kungi

<i>Catholic School Kungi</i>	
Toilet Characteristic	Comments
Walls	Walls are built with raffia palm fronts. Not permanent and porous
Roof	No roof
Floor	The floor is made up of wooden slabs with missing slabs
Doors	No doors
Separation of users	No.
Hand-washing facilities	None
Maintenance	There is no maintenance see how there are missing slabs that have not been replaced



The latrine is very dangerous for minors who can easily fall into the pit through the spaces created by missing (damaged slabs). This latrine condition can discourage its use and cause pupils and students to absent from school when having running stomach.

Recommendation: The school need a completely new toilet that is user friendly and easy to maintain.

2.2.3 Presentation of the State of Latrine Facilities in GS Kungi


<i>Government School Kungi</i>	
Toilet Characteristic	Comments
Walls	No
Roof	No
Floor	Slabs of wood with open spaces
Doors	No
Separation of users	No
Hand-washing facilities	No
Maintenance	None



Catholic School Kungi: Dangerous toilets especially for minors who go to the toilet alone. Missing plank is dangerous for them.

***Recommendation:* The school needs a completely new toilet that is user friendly and easy to maintain.**

2.2.4 Presentation of the State of Latrine Facilities in PS Kungi

<i>Presbyterian School Kungi</i>	
Toilet Characteristic	Comments
Walls	No
Roof	No
Floor	No
Doors	No
Separation of users	No
Hand-washing facilities	No
Maintenance	No. Burnt down no alternative has been sought
	
<p>There is no difference using this latrine and practising open defecation</p> <p>Recommendation: The school need a completely new toilet that is user friendly and easy to maintain.</p>	

2.2.5 Presentation of the State of Latrine Facilities in GS Moh


<i>Government School Moh</i>	
Toilet Characteristic	Comments
Walls	Walls built with sundry blocks but not plastered and have no paint.
Roof	The roof is of permanent material
Floor	Cemented floor , which can be cleaned easily
Doors	Yes (without shutters)
Separation of users	No; since the doors have no shutters users can access any latrine room especially in time of high demand such as break periods
Hand-washing facilities	None available nearby.
Maintenance	There seems to be no management plan. Cobwebs cover the internal parts and the floor is wet. Wet floors enhance contamination



Government School Moh, walls with sundry blocks, cemented floors, no doors needs some cleaning

***Recommendation:* Plaster walls, make doors secured and introduce a class by class cleaning programme.**

2.2.6 Presentation of the State of Latrine Facilities in CS Moh

<i>Catholic School Moh</i>	
Toilet Characteristic	Comments
Walls	Zinc walls
Roof	Zinc roof
Floor	Floor that is not cemented
Doors	No shutters
Separation of users	Practically not possible since no user can be prevented from using any of the latrine rooms
Hand-washing facilities	None
Maintenance and Hygiene	The floor is not cemented and makes it difficult to clean. The floor easily gets wet by urine causing bad odour and creates a good environment for disease vectors.
	
<p>The entrance to the toilet is undulating and can lead to accidents especially for minors and middle level pupils who always go to the toilet running</p> <p><i>Recommendation:</i> cement floors and build shutters. Introduce toilet cleaning programme that is not punitive to pupils.</p>	

2.3.1 Problems with respected to Sanitation Facilities

- 2 schools latrines lack walls and doors reinforced to ensure easy cleaning, privacy and security
- 3 schools need completely new toilets
- All schools lack proper toilet maintenance and cleaning strategies
- There are no hand-washing facilities close to latrine facilities
- There are no urinals

2.3 Hygiene

The hygiene promotional activities in the schools are below acceptable standards with respect to provision of necessary, education and promotional activities. Out of the six schools under study only 2 have hand-washing facilities and the provision of soap is not regular. The facilities include 2 drinking buckets adapted with taps and 2 basins to collect waste water. Each school has one such facility. The pupils use these facilities before and after break. By observation there is no strict follow up of the pupils to use the facilities. Secondly the lack of adequate water in the school campuses makes effective and proper use not possible. There are no facilities near the latrines

Hygiene education in the schools is in the most part limited to normal classroom lessons which fail to treat serious hygiene issues such as handwashing with soap, under running water at critical times. The two schools with handwashing facilities have had more hygiene education through the support of the Social Welfare Department (Caritas) of Kumbo Diocese, hence the availability and use of the facilities. Handwashing reminders are found in classrooms in these schools that have had contact with Caritas Kumbo; these posters are not visible in the handwashing stations.

The schools have no hygiene promotion programme such as extracurricular hygiene education and activities. This can be an important entry strategy for, hygiene and sanitation promotion to local communities.

3.3.1 Problems with respect to Hygiene

- Absence of handwashing facilities near latrines
- Inadequate handwashing facilities in the other sectors of the school (such as around classrooms and administrative blocks)
- Inadequate hygiene education and promotional activities

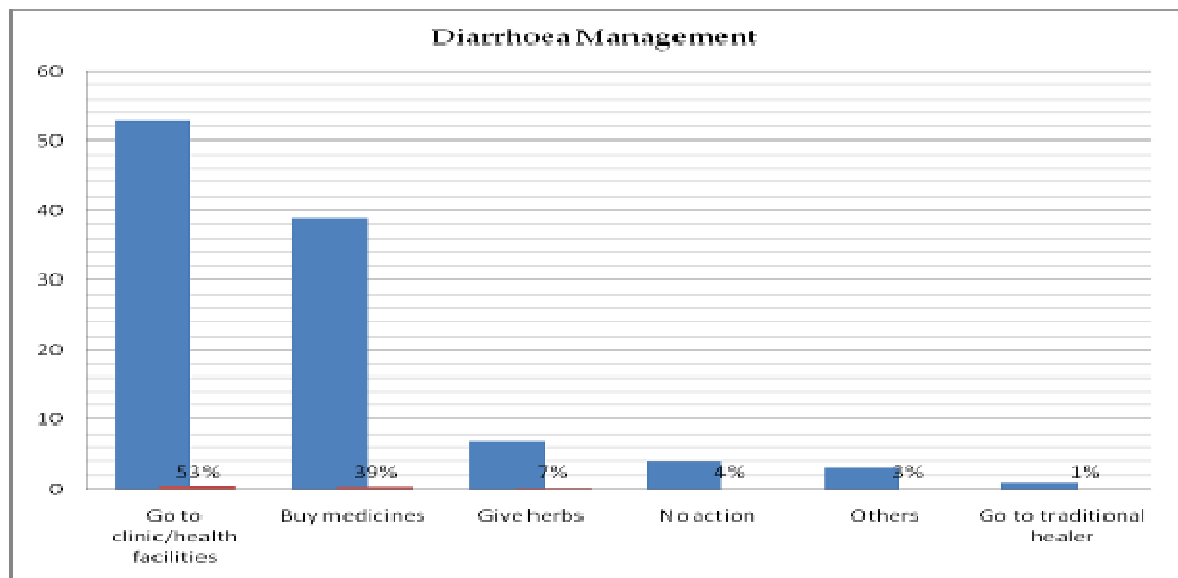
3 Knowledge Attitudes and Practices

In terms of KAP findings, this study is interested in finding out about the prevalence of diarrhoea, how it is managed and pupils knowledge in terms of causes and methods of prevention.

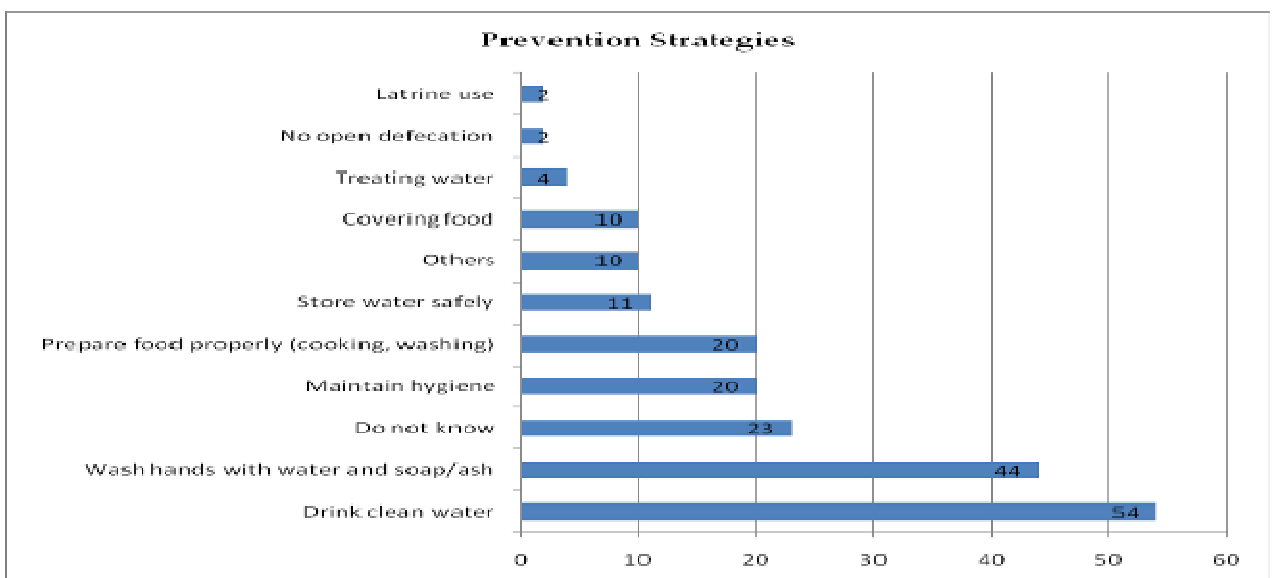
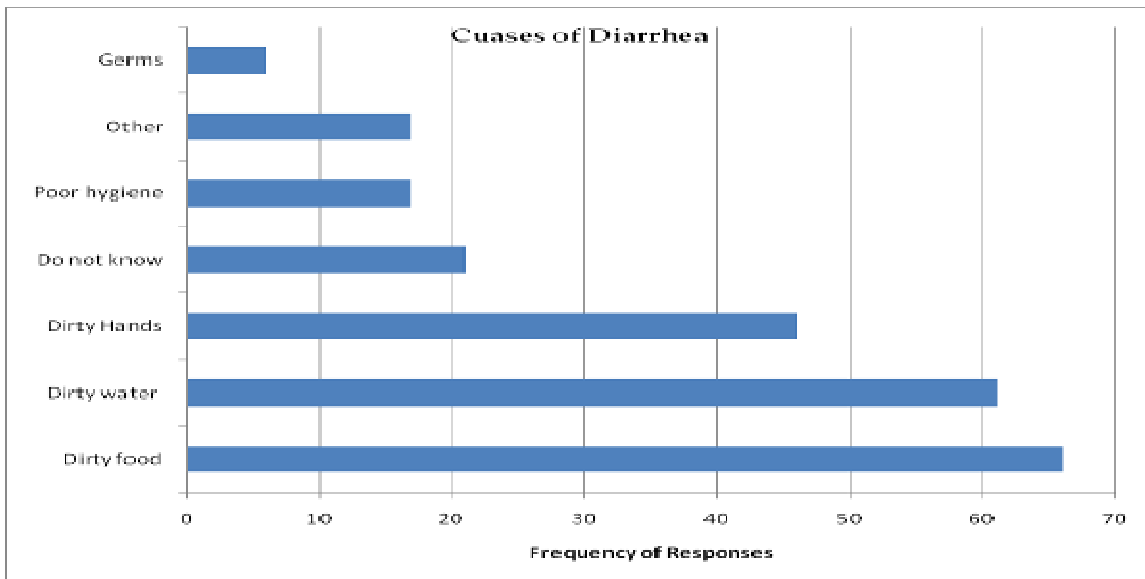
3.1 Disease Prevalence and Management

Out of the 117 pupils who responded to the questionnaire, 27% said they have had diarrhoea in the last 2 weeks and 15% said they knew of a friend who had diarrhoea.

For children who have had diarrhoea (maybe for other diseases too), the parental management shows that a great proportion visit medical facilities and take medication. Some 37% of our respondents say their parents buy medicine, but what the study fails to bring out is whether all those who buy drugs do so after consultation or is it auto medication, same for the 7% who give herbs. 1% of parents go to traditional healer. Some 4% take no action (maybe it is considered as part of the child growing up process). The chart below gives a picture presentation of the results on how parents manage diarrhoea cases.



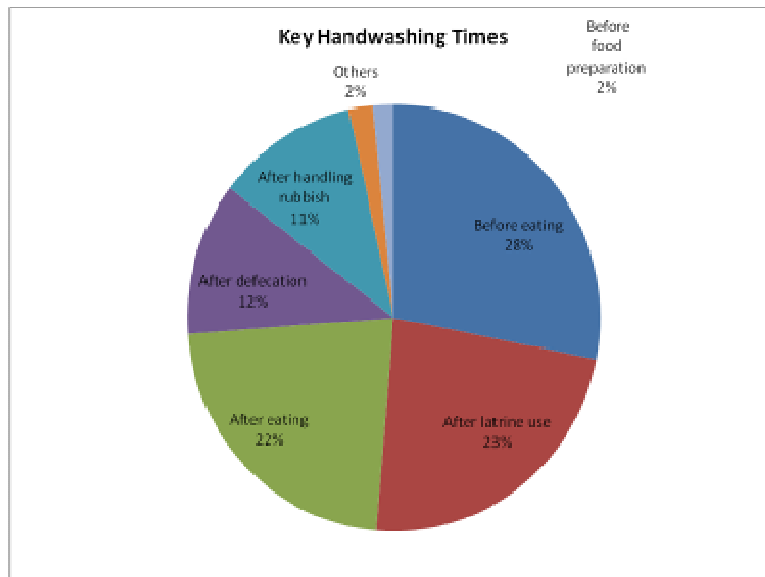
The knowledge of the causes (or how one can get diarrhoea) and prevention of diarrhoea is an important tool in the hand of the pupil in the fight against the spread of diarrhoea and other water borne diseases. During this study we sought to know from the pupils what they think are the causes of diarrhoea and how can they prevent diarrhoea infection. In the charts that follow we present the summary results from this study on causes and prevention strategies.



3.2 Handwashing

Handwashing as a means of preventing diarrhoea was mentioned 44 times by the pupils interviewed, it was considered second to drinking clean water. This means only 38% of the pupils know that hand washing with soap is critical to diarrhoea prevention. These two, contribute greatly towards preventing pupils from have having diarrhoea. Proper Handwashing (as a single factors contributes 44% towards the prevention of diarrhoea). Proper Handwashing means washing of hands with soap (ash) under clean running water. Though known to 38% of the pupils interviewed the practice is far from the knowledge.

89% of the pupils wash their hands with water and soap as against 11%; this question was answered by 101 pupils. Of the 11 people who wash their hand



with water only, 2 say washing with soap takes too much time, 7 say they don't do it because of negligence or laziness and 2 think water alone cleanses well.

In terms of Handwashing method, 115 pupils responded to the question. 70 (60%) wash their hands in a bowl and 45 wash under running water. Hence though

about 90 pupils wash their hands with water and soap not all wash properly¹.

The pupils have a good knowledge of the critical times to wash hands. The chart to the left shows the percentages in terms of number of times mentioned as critical for washing of hands. The five key times that came out clearly include before eating (28%), after use of toilet (23%), after eating (22%) after defecation (22%) after handling rubbish, which includes all forms of manual labour (11%). Some pupils mention before food preparation, though an important time to wash hands it cannot readily occur to pupils. This probably would have come from senior pupils who are engage in food preparation at home. At least 9% of the respondents are above 16 years; who can readily assist in food preparation at home.

3.2.1 Problems with respect to KAP

- Poor knowledge of causes and means of preventing diarrhoea
- Poor link between schools and parents for promotion of hygiene at home

3.3 Communication

Although no school has a clearly defined hygiene and promotion programme the pupils have access to hygiene and health related messages. These messages have different content and variety of channels. This section presents the most received messages, the channels and preferred channels of the pupils.

The pupils are exposed to different and useful health, hygiene and sanitation messages about 75% of the pupils have had one or more messages but in terms of what can be remembered they are poor. The best remembered messages – washing of hands with water and soap is remembered by on 32 of the 75 pupils

¹ Interestingly, some pupils mentioned the fact that they wash their hands properly only in school

who said they had heard at least one health related message. This may be because of the low repetition of the message or poor access to the channels used. It is worth mentioning that the studied failed to find out about the frequency of the messages.

The messages were mostly passed through the school, as mentioned by 53 of the 75 pupils who had heard any messages. At least one pupil can remember that a friend was the source of the message. The other sources are very insignificant as seen in the table 5. From the table it is clear the school remains the main source of information to pupils. And experience by parents show that what children learn in school, they believe it to be true and would likely remember especially if it comes from the teachers.

Table 5: Sources of Information on Hygiene and Health Related Messages

<i>Source of Message</i>	<i>Frequency</i>
In School (whoever brought the message)	53
Community Health Volunteers	3
Radio	2
School children	1
Government's health workers	1

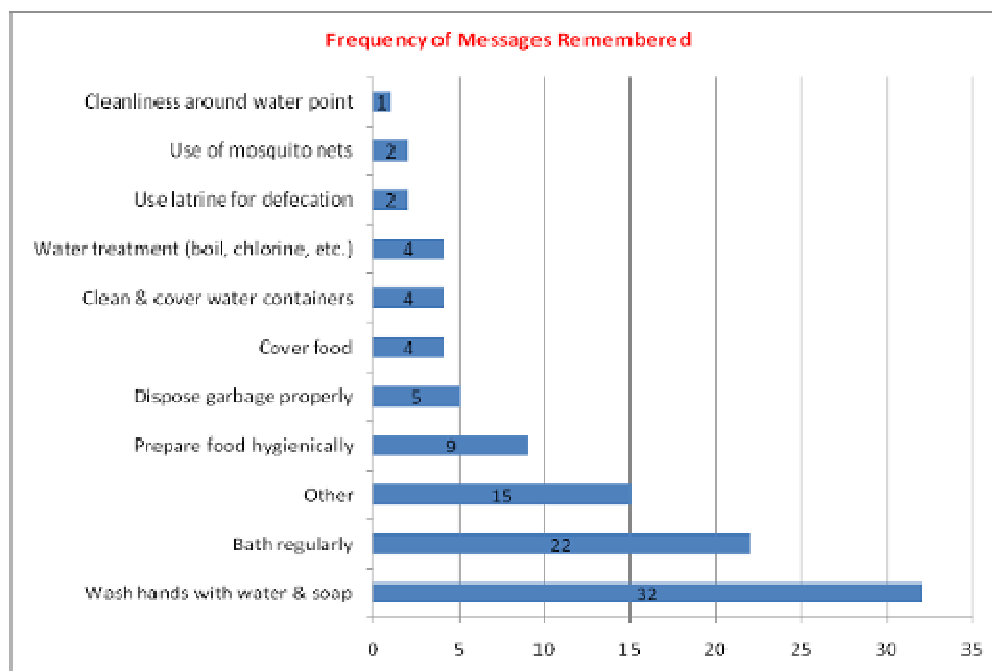


Table 6 shows the preferred choices through which pupils will like to have messages and the school and the radio were jointly mentioned by 88.5% of the pupils. The school alone was mentioned by 71.2%.

Table 6: Pupils Preferred Channel of Communication

<i>Preferred Channel</i>	<i>Frequency</i>	<i>Percentage</i>
School Visit	74	71.2
Radio	18	17.3
Posters/pictures	5	4.8
House visit	3	2.9
Through Church/mosque	2	1.9
SMS/Mobile phone	1	1.0
Video showing	1	1.0
	104	100.0

3.3.1 Problems with respect to Communication

- The level of messages remembered is very low
- Schools have no prepared hygiene messages targeted at the pupils

4 Conclusion & Recommendations

The study though limited in scope shows a picture of the situation in many primary schools especially in rural areas of the region. The study has put together a simple way through which progress can be made in the collection and analysis of data relating Schools' water, sanitation and hygiene conditions.

To ameliorate the situation in the schools under study the, we recommend the keys stakeholders in primary school administration and civil society organisations in hat domain should work synergistically to find lasting solutions to the issues (problems) raised.

Future studies should consider elements of inclusive development by identifying persons living with disabilities as well as the different forms of disabilities.

5 Next steps

5.1 Dissemination of Report

The report is disseminated to the concerned stakeholders in hand copies and include

- The Regional Delegate of Basic Education North West Region

- The Divisional Delegates of Basic Education Bui and Donga Mantung Division
- Kumbo Diocese (Social Welfare Department)
- The Inspectorate of Basic Education Kumbo Central and Nkambe Central Sub-divisions
- The Kumbo and Nkambe Central Councils
- The Schools and Parents Teachers Associations

Electronically, the information will be shared with national and international organisations and institutions interested in WinS.

5.2 Project Proposal Development

The report results will be used to develop a full project proposal involving concerned stakeholders.

5.3 Update Frame for Data Collection and Analysis

The data collection tools, analysis framework and research protocol will be discussed in a workshop with stakeholders versed in social research methods. This workshop is aimed at training research teams in Caritas and Anembom in conducting socio-economic research such as KAP. Further, the workshop will have as key deliverable a database structure for collecting, managing and disseminating WinS information.