

## Final Report

### Baseline Assessment and Intervention Study on the Initiative “Intersectoral Cooperation for School Health”, Rwanda



Kigali, April 2007

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Date: 27/04/2007

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## Acknowledgements

The following intervention study has been realised in cooperation with:

- The School of Public Health, namely *Laetitia Nyrazinyoye* (principal researcher) and her team and *Dr. Laurent Musango* (director, ESP)
- The German Health Cooperation Rwanda, namely *Friederike Paul* (technical advisor, DED/GTZ Santé) and *Dr. Andreas Kalk* (director, GTZ santé)

Further assistance was provided by our partners:

- The research team of the Christoffel Blindenmission and *Valentine Kilibazayire* (director, CBM)
- The team of Peer Educators from Population Service International Rwanda and *Giovanni Dusabe* (technical advisor and Safe Water Programme Coordinator, PSI).
- The 'Project Fond de l'Eau et Assanissement' and *Lambert Karangwa* (technical advisor and project leader FEA)

In the name of GTZ and ESP I would like to thank all the partners for their cooperation and assistance concerning this study.

Furthermore I would like to thank the participating schools, the directors, teachers and children as well as the responsible local administration and hospitals which have all been determined to make this study a success.

In addition thanks need to be addressed to the Ministry of Health and Education and UNICEF - Rwanda for their approval and IEC Materials.

## 1 Context and Overall Objective

In developing countries it is the children, our future capital, who are among the most vulnerable to health hazards. Due to their intense exposure and poorly developed immunity, world wide more than five million children die each year from environmental related diseases and conditions such as diarrhoea, respiratory illnesses, malaria and untreated injuries. There is alarming evidence that some of these diseases severely affect children's physical and psychological development, thereby risking the loss of future human and economic capital.

However, most of these environmental related diseases and deaths can be prevented using effective and sustainable tools and strategies. Delivering school health programmes and services help to link the resources of health education, nutrition and sanitation sectors through an already existing and well integrated infrastructure. The thereby created behavioural change at school, tends to last a lifetime. Primary school children can effectively be used as agents of change at home and in their communities and as future parents they are furthermore likely to pass on their knowledge and environmentally healthy habits learned at school to their children.

In that context, promoting good health and hygiene and developing the sanitation facilities and water supply in schools, is not only regarded as one of the most cost effective of public health strategies, but by strengthening the capacity of the future generation, it is a further investment into a country's development.

In order to enhance synergy between the health, education and other sectors for the benefit of school children, concerned multilateral organizations and global networks (including among others WHO, UNICEF, UNESCO, the World Bank, Education International and the Partnership for Child Development) have established a basic framework for comprehensive school health programming. This framework, named FRESH (Focusing Resources on Effective School Health), involves the use of a common language for describing school health activities, and endorsement of a common set of recommendations for school health programming. FRESH includes four core components: 1) School health policies, 2) water, sanitation and the environment, 3) skills-based health education and 4) school-based health services.

However, the use and adaptation of the framework for planning and implementation at national and local level remains a major challenge in most developing countries. The overall objective of the proposed initiative "intersectoral cooperation for school health" is to assess the scope and reduce the burden of diseases in primary school children in a resource-poor environment through cost-effective and sustainable school health interventions, using the FRESH framework and contributing to the body of experience on its application at country level. The purpose of the baseline assessment and intervention study is to establish relevant baseline data and information on the health status of primary school children and the sanitary situation of school environments in Rwanda, as well as to contribute to a better school environment and health status of children by implementing necessary interventions.

## 2 Health Situation in Rwanda

According to the World Population Data Sheet 2006, Rwanda's population stands at 9.1 million and is currently growing at about 2.7% per year, a rate that would double a population in about 28 years.<sup>1</sup> The life expectancy varies between 44 years among men and 47 years

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<sup>1</sup> PRB (2006): World Population Data Sheet

among women.<sup>2</sup> Rwanda's actual total fertility rate (TFR) with 6.1 children per woman remains very high, slightly higher than in the previous survey (TFR of 5.8 in 2000).<sup>3</sup> The infant mortality rate of children under 5 was estimated to be 192 deaths per 1,000 infants in rural areas.<sup>4</sup> According to the findings of the latest demographic and health survey three quarters of the children in Rwanda have received the recommended vaccinations, however the drop rate between the follow up vaccinations is very significant

Like in most developing countries, the Rwandan population experiences considerable ill health due to diseases associated with inadequate water supply and poor hygiene and sanitation. This is illustrated by statistics of the Ministry of Health (MOH) whereby environmental related diseases such as malaria, intestinal parasites, diarrhoea, and skin infections constitute the largest bulk of the top diseases in Rwanda. With 50 percent of its population being less than 15 years old<sup>5</sup>, it is again the young generation who is most affected and vulnerable.

### 3 Hygiene Situation in Schools

A national network of public sector health facilities exists, yet in rural areas, where 80% of the population is concentrated, access to health care remains low. Additionally genocide and war caused a depletion of trained health and social workers, as well as educators.<sup>6</sup> In the beginning of 2006 the health sector has been decentralized.<sup>7</sup>

In the course of the last years the Rwandan government has invested large sums in programmes of hygiene and education, water and sanitation, but with a limited impact, partly due to inadequate methods and unawareness of the needs of the target population. In 1990 Rwanda signed the World Summit Declaration on the Survival, Protection and Development of Children.<sup>8</sup> Since then several programmes have been initiated by the government, with assistance of multinational partners, which aim at improving the hygiene and sanitary situation in primary schools in Rwanda. For example two governmental programmes have been introduced by the Ministry of Health, the Ministry of Education and the Ministry of Energy, Water and Natural Resources on national, district and community level in 2001: "Hygiene et Assainissement en Milieu Scolaire" (HAMS) and the programme "Participatory, Hygiene and Sanitation Transformation" (PHAST). With additional financial and technical assistance of several multinational donors like UNICEF, WHO, PSI, World Relief, Care International, CORD and several local NGOs and health institutes, these programmes have contributed to the education and the development of the water, hygiene and sanitary situation in the Rwandan society as a whole, and school environments in particular.

Furthermore the primary school curriculum in Rwanda already contains topics such as water, personal hygiene and environmental sanitation.

Even though considerable efforts, which improved the situation at schools, have been undertaken, an assessment conducted in 2003 by the Kigali Health Institute (KHI) and recent evaluations (2006) of HAMS and PHAST, portray the limited impact of these efforts in terms of the development of the situation in schools. Over half of the schools still state that they do

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<sup>2</sup> WHO (2006): Mortality Country Fact Sheet

<sup>3</sup> MOH (2006): Rwanda Demographic and Health Survey

<sup>4</sup> MOH (2006): Rwanda Demographic and Health Survey

<sup>5</sup> MOH (2006): Rwanda Demographic and Health Survey

<sup>6</sup> PSI/Rwanda (2002): Marketing Plan for Safe Water System

<sup>7</sup> PSI/Rwanda (2002): Marketing Plan for Safe Water System

<sup>8</sup> UNICEF: Project Guide Sanitation Promotion in Primary Schools Rwanda

not have direct access to water, most schools still don't have separate latrines for boys and girls or teachers, and many of these latrines, which are not hygienic, are additionally used by the surrounding community. Furthermore students and teachers knowledge on good health and good hygiene practices remain low, mainly due to lack of material and training of teachers.

It is evident that in this context it is necessary to increase the focus on the health of primary school children and by doing so, improving the health situation of the Rwandan population and contributing to the long term economic development and poverty reduction.

## 4 Specific Aims of the Intervention Study

In the district of Ngororero and Huye (two districts selected on purpose) the proposed initiative aimed to:

- Improve the health status of the entire student body in the targeted primary schools through:
  - simple and large scale diagnosis and therapy,
  - provision of sanitation and water facilities,
  - and sensitization and skill-based behaviour change.
- Guarantee sustainability of the achieved improvement through training of teachers and pupils, parents and adjacent health facilities
- Contribute to and strengthen the existing programmes on school health, on regional and national level.
- Contribute to international goals, strategies and practical knowledge in the school health sector.

## 5 Planned Interventions

**Target group:** approximately 2,800 pupils of four primary schools in the districts of Ngororero and Huye.

**Lead partner:** School of Public Health (ESP) in accordance with the national HAMS committee.

**Collaborating partners:** Christoffel Blindenmission (CBM), Population Service International (PSI), Fond de l'Eau et de l'Assainissement (FEA)

In accordance with these partners the following interventions have been conducted. (Financial Plan Annex 1)

### 5.1 Phase 1: Preparation of Study

- Definition of target districts and schools.
- Definition of responsibilities.
- Arrangement of contract agreements.
- Development of study tools (questionnaires etc.) in cooperation with ESP.
- Training of staff in cooperation with ESP.
- Test tools through Pilot Study in cooperation with ESP.
- Amendment of the tools according to findings of Pilot Study in cooperation with ESP.

## 5.2 Phase 2: Data Collection and Situation Analyses

- Implementation of school assessment in cooperation with ESP, evaluating the hygiene and sanitation status of the target primary schools and the activities conducted so far.
- Implementation of a student survey in cooperation with ESP, including socio-demographic data, students knowledge on hygiene and a standard health survey assessing:
  - rapid anamnesis and clinical check up,
  - eye examinations,
  - vaccination status,
  - and stool examinations.
- Treatment of children on diseases identified in cooperation with ESP and CBM:
  - eye treatment (CBM), impairment treatment of children in need of spectacles,
  - de-worming campaign (ESP),
  - and others (if necessary children will be referred to local health facilities for further treatment).
- Lab examination of samples in cooperation with ESP and local hospitals.
- Evaluation of results, of both student and school survey in cooperation with ESP.
- Compilation of data, report writing, identification of the necessary interventions and creation of a clear message.

## 5.3 Phase 3: Implementation of Action Plan

- Provision of water and sanitation facilities in cooperation with FEA and PSI:
  - installation of *Canaries de Clapets*<sup>9</sup> where necessary,
  - installation of *ECOSAN* type latrines<sup>10</sup> where necessary and additionally sensitization of the users to insure ownership and maintenance (FEA),
  - assuring access to water by installing water tanks in schools without access to water (FEA),
  - and assuring access to safe water by distribution and education on “*Sûr’Eau*”<sup>11</sup> (PSI).
- Sensitization and skill based behaviour change in cooperation with PSI:
  - training of Peer Educators (P.E.) on the health issues identified in survey and on the maintenance of the newly installed sanitation facilities (ESP),
  - implementation of an IEC (Information, Education and Communication) campaign through Peer Education to sensitize target group (PSI),
  - and distribution of IEC Material to teachers and students (PSI).

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<sup>9</sup> Locally developed type of hand washing facilities. A jerry can which is fixed to a wall, with a small water pipe and flap to close and open it.

<sup>10</sup> ECOSAN ecological toilets, whereby faeces and urine is divided, and water is not necessary. After drying faeces on a drying yard for a given time, they can be used as fertilizers, thereby closing the cycle.

<sup>11</sup> Water disinfection droplets

## 5.4 Phase 4: Monitoring and Evaluation

Monitoring and evaluation measures to guarantee the sustainability of interventions will be assured by the MOH and the German health cooperation programme at a later stage.

## 6 Results

### 6.1 Phase 1: Preparation of Study

#### 6.1.1 Sampling of Target Schools

In order to establish relevant baseline data and information on the health status of primary school children and the sanitary situation of school environments in Rwanda, four target schools, each with approximately 700 students, were chosen for the implementation of the study in the proposed target regions of Ngororero and Huye.

After being provided with the necessary information of the project proposal, the responsible district director of education suggested the target schools in accordance with the district officials for hygiene, sanitation and health and with further consultation of the presidents of PFAST of the district.

After a first observation of the schools situation and with respect to the proposed interventions for Ngororero district, *Kirwa Primary School* and *Kiziguro Catholic Primary School* were selected. It was agreed upon that these two schools were good examples for a comparison between a school, which has been actively engaged in hygiene promotion and assisted by UNICEF as well as and the Rhineland Palatinate Partnership (Kirwa), and a primary school, where there seemed to be a lack of a healthy school environment (Kiziguro).



Pic1/2: Kirwa/Kiziguro Primary School

According to the same procedure the *Primary School of Sovu* and the *Primary School of Kiruhura* were chosen as target schools for the Huye district. Sovu Primary School has been assisted by Concern International in terms of classroom constructions, yet in comparison with Kiruhura Primary School there is no access to water. Sovu Primary School however runs a school kitchen, which will serve as an interesting aspect for comparison with the other schools, where this facility is non-existent.



Pic2/3: Sovu/Kiruhura Primary School

Having been informed about the goals and procedure of the project, all four school directors were included in the decision making and expressed their interest towards participation.

### 6.1.2 Definition of Responsibilities and Launch of Study

The intervention study on school health was officially launched on the 15.11.2006 during a meeting with the implementing partners ESP, the CBM, PSI and the district officials. In the course of the meeting the target schools were presented and the proposed action plan for the study was completed. (Annex 2)

### 6.1.3 Contract Agreements

During the launch of the study a Memorandum of Understanding (MoU) between GTZ, PSI and CBM was signed to formalise their participation in the baseline assessment and feasibility study. (Annex 3)

Within this framework it was decided that CBM will participate in the creation of an ophthalmologic questionnaire, the training for the pilot study, the pilot study itself and in the final study and analysis of the data. It was further agreed upon that CBM will support the treatment of those children with eye problems, including the distribution of spectacles where necessary.

In the same context PSI has approved to provide P.E. for conducting the planned IEC campaign at the schools, on the topics identified during the survey. PSI has furthermore offered to distribute *Sûr'Eau* to the schools and parents and to sensitize on this topic.

In order to improve the sanitary situation of school environments in Rwanda, as well as to contribute to an improved health status of children the construction of ECOSAN latrines, water tanks and Canaries de Clapets was planned. After thorough consultation GTZ recommended the "Fond de l'Eau et de l'Assainissement" (FEA) to become the partner for implementing these activities. A respective contract was prepared by GTZ together with FEA (Annex 4), a project which has been created in 1983 under the bilateral agreement between the Austrian and Rwandan government, its objective being to reinforce the existing local technical capacities in the planning, implementation, maintenance and management of water and sanitation facilities. Sustainability and ecological, socio-economical and adaptive technical methods are a major focus for FEA. FEA has a vast experience of building sanitation and water facilities in schools, hospitals and other environments in Rwanda, Uganda and Kenya.

Separate contracts for the laboratory examination, the medication and recipients for the stool samples were established by ESP with local hospitals and pharmacies.

UNICEF, Ministry of Health and Ministry of Education have given GTZ and ESP the approval to reprint and distribute their information and education brochures on sanitary promotion in primary schools in Rwanda. A contract with the printers to reprint the two brochures

“Teachers Guide Book” and the “Health Guide” in Kinyarwanda was prepared by ESP. The teachers guide book gives an introduction on teaching methods for school children, and 7 examples for teaching sessions on different health aspects and hygiene issues. The health guide provides additional background information.

#### **6.1.4 Development of Tools and Procedure of Study**

##### **6.1.4.1 School Questionnaire**

In order to evaluate the school environment and sanitary situation of the target schools a survey, including interview and observation questions, was elaborated in cooperation with ESP. (Annex 5)

In part A and B of the questionnaire general school issues, including the question of financial sources and the school environment are evaluated. Part C and D of the questionnaire includes questions on health issues, the existence of maintenance rules and their implementation. Parts E and F of the questionnaire look into assessing the existing school facilities and their maintenance. Part G and H are concerned with waste disposal, kitchen conditions and maintenance and part I and J evaluate the classroom conditions. The last two parts K and L are for assessing the availability and maintenance of water facilities and latrines.

##### **6.1.4.2 Student Questionnaire**

To get relevant baseline data and information on the health status of the primary school children an additional questionnaire was elaborated with ESP and translated into Kinyarwanda. The questionnaire determines the general health status of the children, as well as their knowledge and practice concerning hygiene and healthy behaviour. (Annex 6) The survey was conducted by medical staff, most of which had received a one-day training and participated in the pilot study.

Part A and B of the survey include general socio-demographic data, whereas part C evaluated the nutrition status. The following part D assesses the student’s hygiene status, knowledge and practices. This part includes a special part for girls above the age of 10 years, who already have their menstruation. Since this is a very sensitive issue especially for young girls, these questions were only posed after an introduction and with the permission of the girls. Part E evaluates the health history of the student; part F will include medical observation and physical examination of the child.

The student health questionnaire furthermore includes laboratory stool examinations.

For this purpose in each school the containers for the specimen were distributed to the children one day in advance and they were asked to return their sample, together with their vaccination card, during their interview.

After each interview the children were to be treated with de-worming tablets, and children with diseases which could not be treated on the spot, or with missing vaccinations, did receive a referral letter to the health centre with a copy for the parents.

##### **6.1.4.3 Eye Questionnaire**

The questionnaire for the eye examinations was elaborated by CBM in accordance with GTZ. (Annex 7) Children identified to have eye problems during the general health survey were referred to the eye specialists, who conducted a thorough examination including the history of the eye problem and a proper ophthalmologic anamnesis. Where necessary children were treated, or received a referral letter for further treatment at health care centres. In addition, children in need of reading glasses were provided with such.

### **6.1.5 Training of Staff**

During the training workshop, conducted by GTZ and ESP, the medical staff was introduced to the topic of school hygiene, the action plan of the baseline and feasibility study of school health and the student questionnaire. As part of the training the questionnaire was discussed, to insure the comprehension of the questions, and suggestions made were incorporated before the pilot study took place. Furthermore each of the interviewers received a list of instructions on the procedure of the pilot study, on filling out questionnaires and on what to have in mind while interviewing the children. Attached to each instruction sheet was a feedback questionnaire for the interviewers, which was explained to them during their training.

### **6.1.6 Pilot Study**

Since all primary schools in Rwanda were on school break during the time of the pilot study, it was decided only to test the student's questionnaire. For carrying out the pilot study it was agreed upon that the interviewers should each interview two children, attending primary school, at their homes.

#### **6.1.6.1 Findings of Interviewers Questionnaire**

The findings of the questionnaire for the interviewers showed that on average the interviewers took 29 minutes for the first questionnaire and 26 minutes for the second questionnaire. The vast majority felt the questionnaire was not too long and none of the interviewers had problems with understanding the questions themselves.

Only three interviewers noted that the children had problems with understanding some of the questions, yet none thought it to be necessary to delete those questions.

50% of the interviewers had to repeat some of the questions, mostly because single medical terms were not understood by the children. Only one first grade student did not understand any of these questions.

### **6.1.7 Finalization of Tools**

After the pilot study was conducted and the feedback questionnaire evaluated, the questionnaire was updated accordingly. During feedback discussions it was decided to delete several questions. In addition all questions where the interviewers encountered problems were discussed and the wordings changed accordingly.

For several reasons it was decided not to interview children who just started their first year at school, one reason being that during the pilot study, some questions were found too difficult to answer for the very young. A second motive for leaving this group out of the survey was that the survey took place in their first weeks of school and several questions within the student questionnaire refer to the habits they established at school.

According to the findings of the pilot study and in accordance with the feedback questionnaire, the questionnaires were eventually finalized and printed by ESP.

## **6.2 Phase 2: Data Collection and Situation Analyses**

Within two weeks the collection of data was completed, each primary school was examined within two days. After data input by the ESP staff, the data was analysed jointly by GTZ and ESP.

## 6.2.1 School Questionnaire Findings

### 6.2.1.1 Sovu Primary School

Sovu Primary School located in southern Rwanda, is a 10 min drive on a tarmac road away from Huye district capital. It employs 13 teachers and one director for 826 students in 14 classrooms.

The next health centre from Sovu lies within 40 min. walking distance. At school one teacher is responsible for sensitization on health issues and hygiene, and if a child gets very sick at school, the teacher accompanies the child home.

Sovu Primary school does not have a HAMS committee and has never heard about this program. Science Technology and Environment (STE) lessons are taught by 13 teachers in all classes; however there is not enough teaching material available. The STE guidelines provided by the Ministry have been given to the school. Sport activities such as football, netball and athletics are offered by the school.

The headmaster assures that the maintenance rules are implemented and communicated to the children. These rules include that the school compound is cleaned every day by students and teachers. Dustbins are present in all classrooms, and students and teachers are responsible for the disposal of paper and organic composts.

Students and teachers take care of the vegetable garden, where soya beans and cows grass is grown for selling and for retaining seeds. Organic fertilizers are used in the gardens. The school also owns a pig for selling.

A parents committee and one teacher are in charge of the school kitchen, which is equipped with 5 cooking places. The water used for cooking is fetched by children from the well. Students need to pay 300 RWF per trimester and are provided with lunch during school days. The kitchen is run by contracted workers and is cleaned on a daily basis by the people in charge. Waste material is given to the pig or disposed on the compost. During the time of visit the kitchen was clean.

The first classroom examined is sufficiently ventilated and lightened. It contains a blackboard and 24 chairs and writing desks for 47 children. The walls are built out of bricks and clean. The roof made from sheets of corrugated iron is in good condition and even though the concrete floor is dirty it is in good shape. The second, badly ventilated and dark classroom contains a blackboard and 17 chairs and writing desks serving 104 children. Walls are constructed of mud and clean. The corrugated iron sheets and concrete floor are in good conditions.



Pic4/5: Children in Classroom

The water for the school is fetched by the children from a well approximately 350m away from school, across the main road in a valley. There is a risk of contamination by animals and humans. Drinking water is served at school, yet there is no water storage tank and hand washing facilities are not available.

7 stances of traditional pit latrines, separate for students and teachers, were built by the school in 2002. The employees of the kitchen and the participants of the Gacaca meeting held at the school, also use the toilets. The latrines were built in 10 m distance to the nearest classroom; its walls built out of mud are clean. The roof is tiled and the floor is dirty, but both are in good condition. Latrines are infested with insects; smell very badly and there is no sanitary material available. The outside of the latrines is clean and it is the students who sweep the toilets daily.

#### 6.2.1.2 Kiruhura Primary School

Kiruhura Primary School is situated on a tarmac road, a 40 min drive from the district capital Huye. The school, which has been built in 1945 and is financed through donations, employs 18 teachers and one director for 1,086 students (492 boys and 594 girls).

Within 40 min. walking distance from Kiruhura is the next health centre. One teacher is responsible for the student's health and respective education and if a child gets sick at school a teacher or an older student takes care of it. Again the school does not have a HAMS committee and has not heard about this program. STE is taught by 15 teachers in all classes, except the first; however there is not enough teaching material available and the school does not know about the STE ministry guidelines. Sport activities offered at school are football, netball and athletics.

The school director takes care that the maintenance rules are implemented and communicated to the children. A guard is responsible for cleaning the compound, which is cleaned at least once per week, including grass cutting and sweeping.

The first classroom, which is sufficiently ventilated and lightened, has a blackboard and 25 chairs and writing desks are available for 54 children. The walls are built out of bricks and clean. The tiled roof and the dirty concrete floor are in good shape. The second classroom is well enough ventilated and lightened and contains a blackboard and 30 chairs and writing desks for 25 students. The walls are constructed of bricks and clean. The roof made of corrugated iron sheets and the clean concrete floor, are in good conditions.

On the school compound a water tap has been installed and jerry cans are available in some of the classroom for hand washing.



Pic6: Children Fetching Water



Pic7: Hand Washing

In 2004 traditional pit latrines, separate for boys, girls and teachers, have been built by parents and the school, 6 m away from the nearest classroom. The latrines are sometimes also used by the community. The clean walls are made of bricks and the roof is tiled but

leaking. The concrete floor is dirty, but in good condition. Latrines are not infested with insects but smell very badly, the outside is not clean and there is no sanitary material. The remaining gap is approximately 100 m. It is the students that clean the latrines every day using water.

### 6.2.1.3 Kirwa Primary School

Kirwa Primary School, built by the state and funded by UNICEF, is a public school located in the district of Ngororero around 1 ½ hours drive on a mud road away from the district capital. It employs 12 teachers and one director for 813 children, in 11 classrooms (360 boys and 453 girls).

It takes a 20 min. walk from Kirwa Primary School, to the next FOSACOM (Formation Sanitaire Communauté).

Two teachers of the school are members of the HAMS committee and in charge of school hygiene; however they did not receive any sensitisation by HAMS. STE is taught by 5 teachers in all classes but teaching material is rare. Kirwa primary School has not been given information on the STE ministry guidelines. The sport activities the school offers include football, netball, volleyball and even sport for handicapped children.

The parents' committee of the school assures that the maintenance rules are implemented and read out to the children during assemblies. Rules include that the school compound is cleaned by students and teachers on a daily basis including sweeping and grass cutting. A guard takes care of the compost for organic material and the dustbins, which are available in each classroom.

Once per week the children and teachers take care of the vegetable gardens, where cabbage, carrots, onions, beans and soya beans are grown for selling. Organic fertilizers are used. In addition, the guard is responsible for raising rabbits, which are given to the children to promote rabbit rising.



Pic8: Rabbits



Pic9: Vegetable Garden

The first classroom looked at, which is sufficiently ventilated and lightened, contains a blackboard and 20 chairs and writing desks serve for 33 students. The walls are out of bricks and the roof made of corrugated iron and concrete floor are in good condition. The second observed classroom is very dark and insufficiently ventilated, contains a blackboard and 20 chairs and writing desks for 82 children. Walls are built with bricks and the roof is made out of corrugated iron sheets. The concrete floor is clean but a little damaged.

Water for the school is fetched from a shallow well and the school also collects rainwater. There is a slight possibility of contamination of the water from the well by humans and school latrines. Drinking water is served on hands and not treated. 4 water tanks have been installed at the school; all in good condition (2 new plastic ones were installed during the time our study took place). Their source is unfiltered rainwater. One tank is made of concrete, the

others of plastic and are between 5 -10 m<sup>3</sup> big. There are hand washing facilities available next to the latrines and showers for girls and boys are under construction.

In 2000 traditional pit latrines have been built by the Rhineland Palatinate Partnership, approximately 30 meters away from the nearest classroom. There are 12 stances separate for boys, girls and teachers. The brick walls and the concrete floor are dirty, the roof is made of corrugated iron sheets. In the smelly latrines, which are infested with insects, sanitary material is not available and also the outside of the latrines is dirty. The gap remaining is still deep. There is no drainage facility for waste water. At least once per week the latrines are cleaned by students using water.

#### 6.2.1.4 Kiziguro Catholic Primary School

Kiziguro Cath. Primary School is located in the northern mountains of Rwanda, a 40 min drive on a dirt road from the district capital Ngororero. The school, which is financed through school fees and selling agricultural produce, has been constructed in 1945 by the Catholic Church and with the help of parents. It employs 10 teachers and one school director for 808 students in 9 classrooms (401 boys, 407 girls).

The next health facility a FOSACOM is within 2 minutes walking distance from the school.

At Kiziguro Cath. Primary School one teacher is responsible for student's hygiene. If a child becomes sick while at school the headmaster is informed and accompanies the child to the health facility. The school does not have a HAMS committee and has never heard about this program. STE is taught by all teachers in all classes, however the school complains about a lack of teaching material. The headmaster of Kiziguro has also never heard about the STE ministry guidelines. Sport activities offered at school are football and netball.

Maintenance rules for school facilities are not available, yet students and teachers are responsible for cleaning the school compound 4 times a week including watering, grass cutting and sweeping. Dustbins exist in each classroom and at the head office and in addition a part time employee is responsible for the maintenance of an organic compost and plastic disposal.

In the vegetable gardens, which are fertilized with organic material, the school grows cash crops such as cabbages, carrots, celery, cauliflowers, leek, sweet peppers and white beets. In addition Kiziguro Cath. Primary School raises 11 rabbits, which are given to the children to promote rabbit rising. The students, teacher and the guards are responsible for the maintenance of these facilities.

The first classroom examined, which is barely ventilated and very dark, contains a blackboard but only 11 chairs/desks for 70 children. The walls are clean and constructed out of wood and mud. The roof is tiled and leaking and the floor is plain earth, but in good condition. The second classroom is again insufficiently ventilated and very dark and occupies 112 students. A blackboard, chairs and desks are not available. The walls are constructed out of wood and mud and are very dirty. Again the roof is tiled and leaking and the floor is plain earth.

Approximately a 30 minutes walk from school is the next water source, a shallow well. Drinking water is not served at school and storage tanks and hand washing facilities are not in place.

After the latrines had been destroyed by heavy rains in December 2006, they have been rebuilt by the parents and the school in 2007. Separate latrines only exist for teachers, and the latrines, which have no doors or roof, are sometimes used by other passengers. The latrines are 20 m. away from the nearest classroom. Walls and floor are constructed out of wood and mud and are stained and damaged. The latrines are infested with insects, smell very badly, have no sanitary material and even the outside is dirty. The gap remaining is deep, but there is no drainage facility for waste water. Students clean the latrines every day by removing excreta with a hoe.



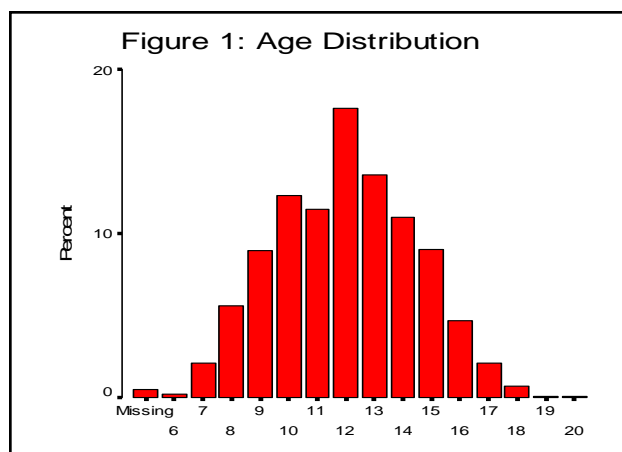
Pic10/11: Latrines

## 6.2.2 Students Survey Findings

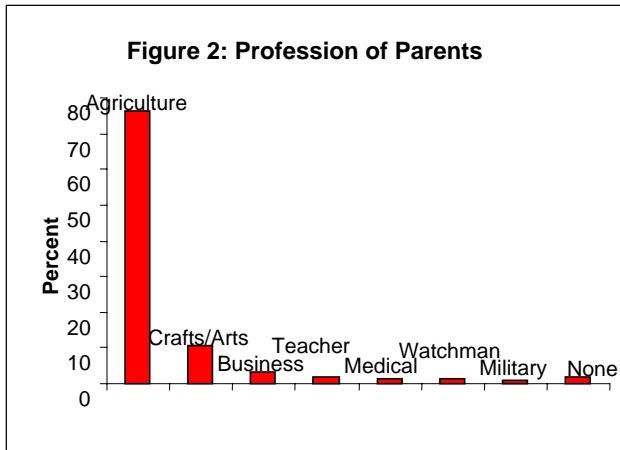
Even though the schools appeared to have different pre-conditions, the results of the students' survey showed no significant differences. In addition there were no significant differences and correlations between hygienic knowledge/practice and illnesses, or differences between boys and girls. Therefore the data collected will be presented as a whole.

### 6.2.2.1 Socio-Economic Background of the Study Population

In total 1,978 students were interviewed (distribution between the 4 schools was fairly equal), 46% of the interviewed children were male, 54% female and ages ranged from 6 to 20 years.

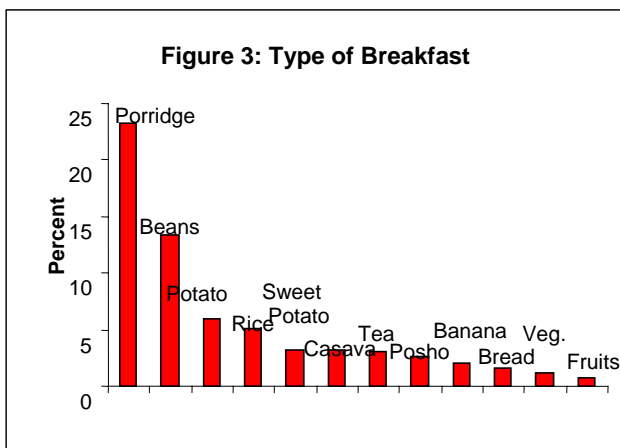


In 89% of the cases the head of family is the father or mother, the highest proportion of them working in agriculture (76.1%) followed by craftsmen (10.8%), businessmen, teachers, medical staff, watchmen and military/police. Only 1.9% was stated to have no profession. Income is mostly generated by selling produce; only few parents earn a stable salary.



### 6.2.2.2 Nutrition

Just over half of the children had breakfast (55.4%) on the day interviewed. Usually breakfast consists of starchy food, only very few children had fruits, vegetables or milk. Most frequently porridge (23.2%), beans (13.3%), potatoes (5.9%) and rice (5.1%) were named, followed by sweet potatoes, cassava, tea, posho<sup>12</sup> and bananas.



6 children from age 8 to 18 years said they had local brew (banana beer) for breakfast, however there is no significant correlation concerning illnesses.

Around 90% of the children eat lunch at home. Except at the Primary School of Sovu where 73% of the children eat lunch at the school canteen, which is being financed by World Food Programme (WFP).

91% of the children know that if they don't drink clean water they will become sick, and 87% of the children know that boiled water is healthy for drinking. Yet 87.7% of the children drink water while at school, of which only 17% is treated. 20% of the water consumed at school comes from home, 53% from school and 21% from the nearest well.

### 6.2.2.3 Hygiene

#### 6.2.2.3.1 Cleanliness of Children and Hygiene Control at School

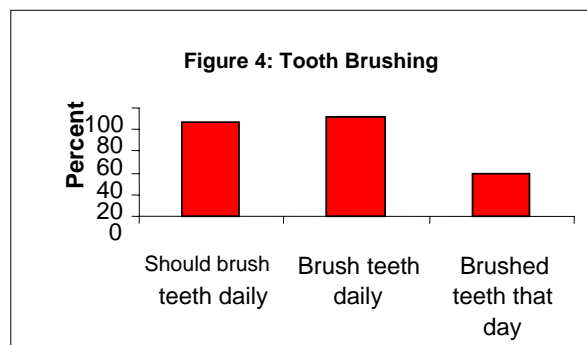
83.1% of children say they clean and cut their nails at least every 2 weeks, the observation of the nurses showed that 67.1% also had clean nails and 87.2% had clean and cut hair.

<sup>12</sup> Maisflour with boiled water

91.9% of children say they cleaned their clothes during the last week. 26.6% of the school children do not wear shoes and 44.6% don't wear a uniform.

#### 6.2.2.3.2 Tooth Brushing: Knowledge and Practice

86.2% of the school children know that they should brush their teeth on a daily basis (1-3times) and 91.8% of the children state that they also do so, yet only 39.1% actually brushed their teeth on that day.



39.3% of the children know that brushing teeth is necessary to prevent tooth decay such as caries, but most 68.5% brush their teeth to be clean and not to smell.

The reasons children don't brush their teeth are because they don't have a brush (49.8%), they forgot to brush (15.3%) or because they were late (5%).

For tooth brushing most of the children (51.5%) use a toothbrush and toothpaste. Another 34.3% brush their teeth using a stick or fingers. There are very few children who don't know that they should brush their teeth, don't want to brush, or have misconceptions such as brushing teeth prevents diarrhoea, worms or other diseases.

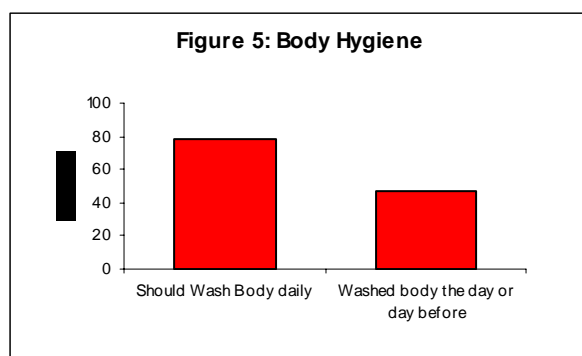
#### 6.2.2.3.3 Body Hygiene: Knowledge and Practice

The vast majority (81.7%) of the interviewed children know that they should wash their hands before eating, but only 37.8% think one should wash them after eating. Only 51.7% believe it is necessary to wash the hands after using the toilets, which correlates to the number of children who actually wash their hands after defecating (68.9%) and after urinating (48%).

Other times when children wash their hands are after playing, during bathing, before cooking, before church, after work and cultivation, before going somewhere, before school and in the morning and evening or when dirty

52.6% of the children always use soap for washing their hands, other 37.9% only sometimes and the main reasons not to use soap are the lack of soap or they forgot. 96.1% already washed their hands at least once on that day.

78.8% state one should wash the body on a daily basis (answers ranged from 1 to 10 times) but 47% did not wash their body that day or the night before.



#### 6.2.2.3.4 Girls' matters

There are in total only 7.2% girls who already have their period and out of these only 16.7% miss school sometimes during that time. Usually they do not need/have someone to help them at school. Most girls use pieces of cloth, tissues or extra shorts during their period. All girls change cloths on a daily basis, from 1 to 6 times per day, during their periods and except one girl, all wash themselves 1 to 5 times per day.

#### 6.2.2.4 Mosquito Nets

71.2% of the children say they have mosquito nets at home out of which 67.2% slept under a mosquito net the night before. 81% of these mosquito nets had been treated.

#### 6.2.2.5 Latrines: Availability, Knowledge and Practice

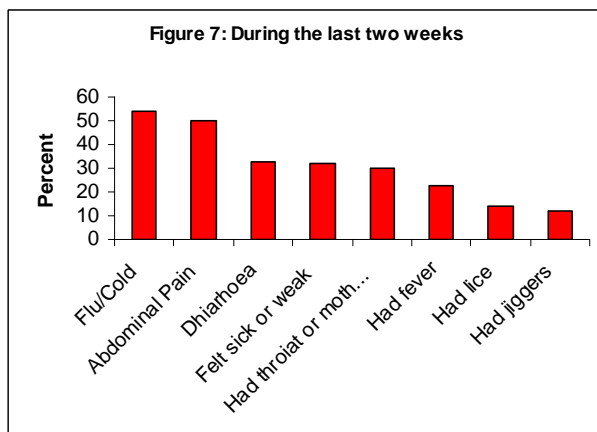
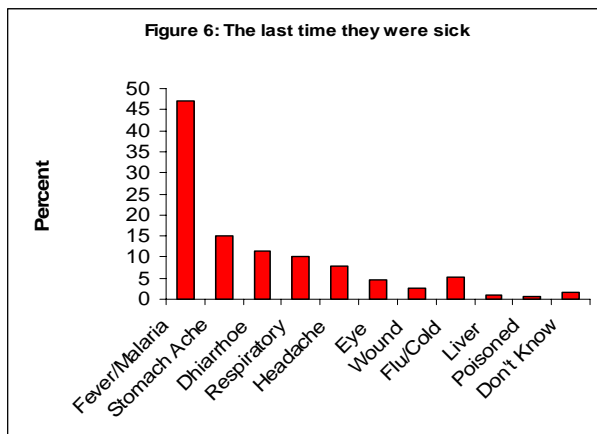
The vast majority, 96.5%, of the children's families have pit latrines at home, only 3.1% have none at all.

84.5% use the school latrine on a daily basis. Among the reasons not to use the toilet are the long distance, long queues, or because the children simply prefer the fields.

Only 32.2% of the children know that latrines help to prevent diseases, but 66.9% say one should be using latrines for 'hygienic' reasons. Another 10% use the latrine because it is the law, to hide from others or to avoid punishment and poisoning.

#### 6.2.2.6 Illnesses

The most frequent illnesses the children suffered of in the last weeks, or the last time they were sick, are fever/malaria, stomach problems like abdominal pain or diarrhoea, flu/cold and respiratory diseases.



### 6.2.2.6.1 Physical Examination Results

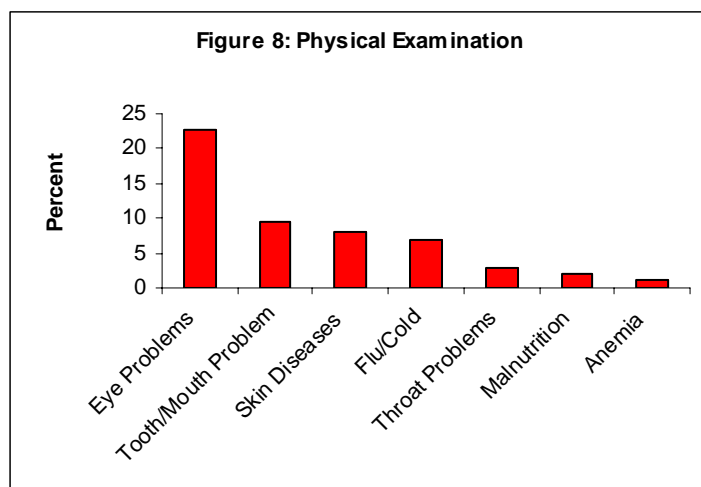
The physical examination showed that 9.6% of the children have teeth or mouth problems (mostly caries and tooth decay), 6.9% showed signs of a flu/cold, 8% have skin problems.



Pic12: Physical Examination and Interview

Another 2% suffer from throat problems, 3% of the children show signs of malnutrition and 1.2% show signs of anaemia.

A high number of 22.8 % have eye problems and were referred to the eye specialists.



### 6.2.2.6.2 Stool Test Results

42.4% of the stool samples taken were found negative. Sickesses found during stool test are ranked as follows: Amoebas, Askaris, Worms and Guardia.

**Figure 9 : Stool Test Results**

	Frequency	Percent
Amoebas	649	44,4
Askaris	144	9,9
Giardia	44	3
Trichomonas	16	1,1

Ankylostoma	12	0,8
Chilomastix	6	0,4
Anguillules	4	0,3
Taenia	3	0,2
Oxyure	2	0,1
Schistosoma Mansoni	1	0,06
Trichocephales	1	0,06
Negative Test	620	42,4

*(In total only 26.2% of the children brought back their stool sample)*

#### 6.2.2.6.3 Treatment

60.5% of the children are covered by health insurance through their family. Half of the children went to a health centre or hospital when they were sick the last time (59.2%) and another 15.2% were treated at home with medicine bought from pharmacies. Only 10.9% were treated by traditional doctors or with traditional medicine.

Around 33.1% of the children missed school during the last trimester and out of these 68.5% because they were sick. They usually missed school between 1 to 6 days.

#### 6.2.2.6.4 Vaccination

Barely any of the children brought their vaccination card (3%); out of which 64% had been complete.

#### 6.2.2.6.5 De-worming Campaign

Tablets for de-worming were not available during the time of the study and hence handed out at a later stage by the ESP to the school directors.

#### 6.2.2.6.6 Referrals

19% of the children received a letter to recommend the parents to bring their children to hospitals or health centres.

### 6.2.3 Eye Questionnaire Findings

Out of the 451 children referred to the ophthalmologists for further examination of eye problems, only 360 children were actually examined.

Most of the interviewed children have suffered from eye problems for a period between 6 months to 2 years. 21.9% of the children have already been to a health centre for treatment, only 2.2% consulted local practitioners.

The physical examination showed that 86.7% of the children suffer from refractive errors, out of which, 1.7% suffered from myopia and were treated on the spot. Only one child was found to actually have a bad vision, but did not need to receive spectacles since the eye correction was not very high. 51.1% suffered from conjunctivitis and 49.9% from other eye infections. Only 3% of the children showed a corneal opacity and 0.6% were found to suffer from cataract.



Pic13: Eye Examination

Out of the children who suffered from different eye problems, 93.6% were treated on site, and 6.3% have been referred to eye specialists.

### 6.3 Phase 3: Implementation of Action Plan

#### 6.3.1 Construction of Sanitary Facilities

At Sovu Primary School the children had to carry water from the source in the valley across the main road. This has been the cause of several accidents in the past. In addition the water which is used for cooking and drinking at school is untreated and at risk of being contaminated by animals and humans. Furthermore, at Sovu Primary School the results of the study showed the highest percentage of positive stool tests (72%). To provide the Primary School of Sovu with potable water, a reservoir of 5 m<sup>3</sup> and an extension from the main water pipe -Mont Huye- Sovu Monastery was constructed. In addition hand washing facilities were constructed close to the latrines.



Pic14: Finally Water at School



Pic15: EKOSAN Latrines and Canaries des Clapets

At Kiruhura Primary School the latrines were visibly in bad conditions and it was therefore decided to build 12 EKOSAN type latrines, with a provision of urinal and a drying yard for emptying faeces. Hand washing facilities were constructed close by. (The school used to have a partnership with the Rhineland Palatinate Partnership, and a process to revive this partnership was initiated by the GTZ in accordance with the school)

Since Kirwa Primary School is already assisted by UNICEF and water as well as latrines are in place, only hand washing facilities were established close to the latrines.

At Kiziguro Cath. Primary School a 10 m<sup>3</sup> water tank was constructed, since there is no water pipe connection in this area its source will be rainwater. In addition EKOSAN latrines were put up since the existing latrines were in extremely poor conditions. Again hand washing facilities were constructed close by. (Besides a process of establishing a partnership with Rhineland Palatinate Partnership, in order to reconstruct the old buildings etc, is underway and a partner has already been found)

FEA will also complete an intensive sensitization on the new facilities, on the use and maintenance of latrines, hand washing and concepts of water treatment at all schools.

### 6.3.2 Sensitization and IEC Campaign

As planned the sensitization of the schools was completed in cooperation with Peer Educators from PSI. It was decided to sensitize the teachers, as well as students and their parents in separate teaching sessions.

For the sensitization of the children explanatory pictures of the reprinted booklet “Teacher’s Guide” were used to facilitate the understanding of the children. The topics which were covered included daily body hygiene such as hand washing and tooth brushing, as well as the benefits of using latrines, water treatment, *Sûr’Eau* and malaria prevention.



Pic16/17: Sensitization Children

During the sessions for teachers, they each received a copy of the “Teachers Guide” with an introduction on how to work with this book. They further received guidance on latrine and school compound maintenance and were introduced to water treatment with a focus on *Sûr’Eau*. In addition, the “Health Guide” books were left to the school to be used in the STE lessons in future.



Pic18: Sensitization Teachers

The parents, who were invited for sensitization sessions, received information on water treatment with focus on *Sûr'Eau*, malaria prevention and latrine use and maintenance. Each of the parents received a bottle of *Sûr'Eau* for use at home and the remaining bottles were left to the school for treating drinking water at school.



Pic19/20: Sensitization Parents

At Sovu and Kiruhura, in the evening the PSI team showed short health promotion movies, covering malaria prevention and water treatment to the villagers. These events were quite frequently visited by the school children.



Pic 13: Sensitization Village

## 7 Discussion of Results

The results of the study represent the common situation of primary schools in Rwanda<sup>13</sup>. Even though the schools try to raise additional funds by growing and selling produce such as vegetables, without additional financial assistance, school buildings are not rehabilitated, classrooms are too small, badly ventilated and dark. Considering the high number of children, the number of employed teachers remains very low. Materials such as chairs and blackboards are missing or their number is insufficient.

All schools try to maintain the compound and also teach STE lessons at school. Yet the material for teaching is missing, teachers do not have sufficient knowledge themselves and guidelines and programmes provided by the Ministry of Health and Education are not known.

Access to safe drinking water is not guaranteed. Latrines are available at all schools, yet their conditions are unhygienic and even though they are regularly cleaned, their maintenance remains a problem.

Even though, in order to be able to make a comparison, the target schools were chosen with different backgrounds, the results of the student questionnaire showed no statistical significant differences between the four schools in health knowledge, practice and status of the children, between the four schools.

The dimension of external factors influencing the health status of school children has not yet been researched on and not accounted for within this study. The sanitary situation at the children's homes is almost certainly similar, suggesting a common influence on the health of the children. Even if the first impression and outer appearance of the schools and its sanitary facilities seemed very different, the study showed that for example none of the latrines were clean and water was not treated, suggesting that maintenance of facilities plays a major role. In addition the cooperation between the Rhineland Palatinate Partnership and UNICEF at Kirwa Primary School, seems to be restricted to the construction of school and sanitary facilities. Sensitization measures for children and teachers have not taken place. Furthermore the interviewers and PSI educators had the feeling that also the discipline varied among the schools, they felt that children at Kiziguro Primary school which seemed the poorest, were actually most orderly and clean.

The results on the hygiene/health knowledge and practice of children showed that most of the children have a broad knowledge, but a poor practice. Children are theoretically aware that they should wash their hands and bodies, they should brush their teeth, use the toilet etc, yet they do not behave accordingly. One major reason that children have not established a healthy behaviour is of course the lack of necessary facilities and financial means to built or buy such. Hand washing facilities rarely exist, latrines are dirty and not sufficient in number, safe drinking water is not available and toothbrushes or soap are rarely accessible for children. Yet another additional explanation could be the lack of understanding of consequences and correlations. They know for example that drinking dirty water, will result in getting sick but they don't seem to know what dirty water is, how water is contaminated and so they continue to drink untreated water. This thesis was underlined by feedback given during the sensitization sessions. For instance being asked why they should use latrines, they answered "for hygienic reasons" however almost no one had a clear understanding of the meaning of hygiene.

The results of the questions on nutrition proved that the diet of children is unbalanced and there was a clear lack of vitamin and mineral rich food. In addition nearly half of the children did not have any breakfast at all.

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<sup>13</sup> As stated in the assessment of the Kigali Health Institute (KHI) conducted in 2003 and recent evaluations (2006) of HAMS and PHAST.

Concerning the findings of the clinical check-up and stool tests, once more the differences found between the schools were not significant. The health status of children in the 4 targeted schools reflects the general situation of school children in Rwanda and developing countries in general. Intestinal illnesses, skin diseases, respiratory illnesses, tooth decay and eye infections often caused by poor hygiene, malnutrition and unhealthy behaviour are most cited problems for Rwandan school children.

The findings of the eye questionnaire further revealed a high number of children with eye infections and refraction errors.

## 8 Conclusions and Suggestions

With an overall budget of 48,000 EUR it was not only possible to finance a comprehensive baseline study at 4 primary schools (13,400 EUR), but also to achieve a good part of the anticipated goals of the project, an improvement of children's health status and sanitary environment of the target schools by implementing necessary interventions (25,000 EUR).

During the baseline study, 1,978 students in 4 primary schools were examined, including rapid anamnesis and clinical check up, eye examinations and stool examinations. With as little as 800 EUR, 2,800 children in the four schools could be treated with de-worming medication and in addition, where necessary, eye therapy was provided (financed by CBM).

In an attempt to establish a healthy school environment, a major part of the budget (19,200 EUR) went into the improvement of the water and sanitation facilities at the four schools. Water reservoirs have been constructed and installed, in order to supply water to the Primary School of Sovu and at Kiziguro Primary School. Besides, at the Primary School of Kiziguro as well as at the Primary School of Kiruhura, EKOSAN type latrines were constructed. Each target school additionally received 10 hand washing facilities. With the aim of achieving a sustainable maintenance of the new facilities and to establish a sense of ownership, all schools received sensitisation and training on utilisation and maintenance.

During the IEC Campaign that followed the baseline study, all children, all teachers and approximately 1,000 parents, received training and skill based sensitisation sessions on the topics identified during the study. One major sensitization topic included the water treatment with *Sûr'Eau* and parents and the school received samples of *Sûr'Eau*, in order to get acquainted to this method (800 EUR for 2,800 bottles). In addition the target schools received teaching materials to facilitate their hygiene and health lessons in future (4,300 EUR).

The results of the study underlined and confirmed the findings from similar surveys in the country and internationally. The health status of primary school children and the sanitary situation of school environments in Rwanda are alarming and confirm the great need, but also the potential for action.

The experience gained through the project showed that in resource poor environments, schools as learning environments, and capacity building institutions, can contribute to the improvement of the health situation of school children, only if they are given the appropriate technical and financial assistance.

In order that schools can work effectively on health issues, the provision of water and sanitation facilities is a necessary requirement. Since the construction of sanitary facilities and the provision of water are among the most cost intense part of school health interventions, and given that the resources of Rwandan primary schools are limited, the majority will need financial assistance.

Yet the results also demonstrated that the mere construction of school and sanitary facilities does not guarantee a better health status of school children. Moreover the establishment of new sanitary facilities needs to go hand in hand with the facilitation of behaviour change, in personal hygiene, health and maintenance issues, through effective education and the

establishment of strict maintenance rules. Therefore to be able to provide children with the necessary information, so they are able to take responsible actions, teachers and schools need to have access to appropriate information and technical assistance.

As a Rwandan primary school child typically spends only half a day at school, external factors, such as the hygiene situation and practice at home or nutrition, are likely to have a great influence on the children's health status. As a consequence activities that aim at improving the health of school children should not exclusively target the school, but also incorporate the surrounding environment and families.

National programs such as HAMS that aim at improving the health situation of school children by establishing a peer education system at all different levels and the addition of hygiene topics into the school curriculum, are going in the right direction, but, in order to work efficiently they need to be implemented on a wider scale and monitored continuously.

If schools are given the appropriate financial and technical assistance and if staff is provided with sufficient knowledge, material and motivation, they will be able to take responsible and necessary actions and hence, contribute to the development of the water, hygiene and sanitary situation particularly in school environments and in the Rwandan society as a whole.

## 9 Annexes

## Annex 1: Financial Statement

Activités	Quantité	Jours	PU (FRW)	PT (FRW)	PT en Euro (=698 FRW)
<b>Elaborations des outils</b>					
Investigateur principal	1	3	63 000	189 000	270,77
Assitant	1	3	14 000	42 000	60,17
<b>ST1</b>				231 000	330,95
<b>Seminaire de formation</b>					
Investigateur	1	1	63 000	63 000	90,26
Médecin	1	1	63 000	63 000	90,26
Assistants d'ophtalmologie	2	1	14 000	28 000	40,11
Enquêteurs	10	1	14 000	140 000	200,57
<b>ST2</b>				294 000	421,20
<b>Pré test et adaptation du questionnaire</b>					
Investigateur	1	2	63 000	126 000	180,52
Médecin	1	1	63 000	63 000	90,26
Assistants d'ophtalmologie	2	1	14 000	28 000	40,11
Enquêteurs	10	1	14 000	140 000	200,57
<b>ST3</b>				357 000	511,46
<b>Enquête sur terrain</b>					
Investigateur	1	8	63 000	504 000	722,06
Médecin	1	8	63 000	504 000	722,06
Assistants d'ophtalmologie	2	8	14 000	224 000	320,92
Enquêteurs	15	8	14 000	1 680 000	2 406,88
Transport et examination des échantillons	2 800		1 500	4 200 000	6 017,19
Médicaments	2 800		200	560 000	802,29
<b>ST4</b>				7 672 000	10 991,40
<b>Saisie des données</b>					
Création du masque de saisie	1	2	45 000	90 000	128,94
Agents de saisie des données	8	10	10 000	800 000	1 146,13
Supervision de la saisie des données	1	10	45 000	450 000	644,70
<b>ST5</b>				1 340 000	1 919,77
<b>Campagne CCC</b>					
Formation promoteurs (investigateur principal)	1	1	63 000	63 000	90,26
Per Diem Formateurs	5	10	14 000	700 000	1 002,87
Matériel CCC	1 000		3 000	3 000 000	4 297,99
Sur'Eau	2 800		200	560 000	802,29
<b>ST6</b>				4 323 000	6 193,41
<b>Equipement</b>					
Canacles	40		10 000	400 000	573,07
Toilettes	24		350 000	8 400 000	12 034,38
Reservoir de l'eau	2		2 300 000	4 600 000	6 590,26
<b>ST7</b>				13 400 000	19 197,71
<b>Matériel du bureau</b>					
			100 000	100 000	143,27
<b>Communication</b>					
			180 000	180 000	257,88
<b>ST8</b>				280 000	401,15
<b>TOTAL GENERAL 1</b>					
				27 897 000	39 967,05
<b>Coûts indirects (20%)</b>					
				5 579 400	7 993,41
<b>TOTAL GENERAL</b>					
				33 476 400	47 960,46

## Annex 2: Procedure and Timeframe

Sujet	Sub-Sujet	Activité	Responsable	Calendrier	Indicateur pour M&E	Résultats
<b>Phase 1:</b> Préparation d'étude	<b>Etape 1:</b>	▪ Définir des districts et écoles cible	Friederike Directeur de santé et d'éducation	31.10. – 10.11.2006	2 Districts + 2 écoles primaires	Ngororero (Kirwa, Kiziguro) + Huye (Sovu, Kiruhura)
		▪ Définir des responsabilités	Avec les partenaires	15.11. 2006	Plan d'action mis à jour	Plan d'action
		▪ Se mettre d'accord sur les MoU avec les partenaires	Avec les partenaires	17.11. 2006	MoU avec ESP, GTZ, PSI, CBM	
		▪ Développer des éléments pour l'étude (questionnaire etc.) en collaboration avec ESP	Laetitia, Friederike, Jennifer	22.11. 2006	Eléments 2 Questionnaires	
		▪ Entraîner le personnel en coopération avec ESP	Laetitia	23.11. 2006	No de personnel entraîné	
		▪ Examiner les outils par l'étude pilote en coopération avec ESP	ESP/CBM équipe	24.11.2006	Etude Pilote	
		▪ Modifier les outils selon des résultats dans l'étude pilote en coopération avec ESP	ESP/CBM équipe	25.11.2006	Les outils finals	
		▪ Distribution des récipients	ESP/CBM équipe	Un jour avant	No des récipients distribué	
		▪ Réimprimer 1000 brochures de UNICEF	Friederike	15.12.2006	No des brochures réimprimé	
<b>Phase 2:</b> Collecte de données et analyses de situation	<b>Etape 2:</b> Identifier les problèmes selon les données	▪ Analyse de milieu scolaire (approx. 10 questions) inclure	ESP/CBM équipe	08.01. – 19.01. 2007	4 Analyses	
		▪ Questions sur l'infrastructure sanitaire et les activités sur la assainissement et hygiène qui existe jusque la				
		▪ Enquête des élèves (approx. 60 questions) inclure	ESP/CBM équipe	08.01. – 19.01. 2007	No des élèves interrogé	

		<ul style="list-style-type: none"> <li>▪ Données socio-démographiques</li> <li>▪ D'interventions que les élèves se rappellent</li> <li>▪ Connaissance des élèves sur la hygiène</li> <li>▪ D'enquête de santé (questionnaire standard)</li> <li>▪ Traitement des maladies identifié</li> <li>▪ Distribuer les lunettes</li> <li>▪ Référent les enfants avec des autres maladies aux centres de santé</li> </ul>				
		<ul style="list-style-type: none"> <li>▪ Analyses de laboratoire au l'Université à Butare et l'hôpital de Mohororo</li> </ul>			No analyses de laboratoire	
	<b>Etape 3:</b> Comparer et évaluer les résultats	<ul style="list-style-type: none"> <li>▪ Saisie des données</li> </ul>	ESP	15.01. – 26.01.2007	Rapports (Analyse en milieu scolaire et enquête des élèves)	
		<ul style="list-style-type: none"> <li>▪ Evaluation des résultats avec le foyer spécial sur la comparaison des écoles où les interventions par HAMS (ou d'autres) ont eu lieu et où activité n'a pas eu lieu</li> <li>▪ Identifier des interventions nécessaires</li> </ul>	Laetitia	22.01 – 31.01.2006		
	<b>Etape 4:</b> Rédiger les données et écrire des rapports	<ul style="list-style-type: none"> <li>▪ Ecrire rapport final</li> <li>▪ Avoir un message clair</li> </ul>	GTZ et ESP	31.01 – 28.02. 2007	Rapport Finale	
<b>Phase 3:</b> Mise en application du plan d'action	<b>Etape 5:</b> Fourniture de l'eau et d'hygiène	<ul style="list-style-type: none"> <li>▪ Appel d'offre et des contrats avec les compagnies pour des installations sanitaires (latrines, réservoir d'eau etc.)</li> </ul>	Friederike	15.12.2006	Contrats	
		<ul style="list-style-type: none"> <li>▪ Installer 40 canacles</li> </ul>		01.01.- 28.02.2007	No. des canaries installé	
		<ul style="list-style-type: none"> <li>▪ Installer 24 latrines ou possible</li> <li>▪ Inclure la communauté pour la construction des latrines pour assurer la propriété et l'entretien et sensibiliser en plus la communauté</li> </ul>		01.01.- 28.02.2007	No. des latrines installé	

		<ul style="list-style-type: none"> <li>▪ Construire des réservoirs d'eau à 2 école</li> </ul>		01.01.- 28.02.2007	No. des réservoirs d'eau construite	
		<ul style="list-style-type: none"> <li>▪ Distribution de Sûr'eau</li> </ul>			No. Sûr'eau distribué	
	<b>Etape 7:</b> Sensibilisation, changement de comportement	<ul style="list-style-type: none"> <li>▪ Entraîner les pairs éducateurs sur les problèmes de santé identifier dans l'enquête et sur l'entretien des équipements installés.</li> </ul>	ESP Laetitia	12.02.2007	No of P.E. entraîné	
		<ul style="list-style-type: none"> <li>▪ Conduite une campagne IEC (Information, Education et Communication) avec les pairs éducateurs de PSI la distribution de sur'eau et des brochures pour sensibiliser le groupe cible (enfants, enseignants, parents et communauté) sur l'hygiène, sûr'eau, l'entretien des équipement etc.</li> </ul>	PSI	12.02.- 23.02.2007	No. des élèves et d'enseignants, et des parents sensibilisé; No des brochures distribué	

### Annex 3: Memorandum of Understanding

<b>COOPÉRATION</b>  <b>RWANDA ALLEMAGNE</b>	<b>Accord de Coopération</b>
Coopération Allemande en Santé School of Public Health « <b>L'étude de la faisabilité et l'analyse de base sur la santé en milieu scolaire</b> »	

Fait à Kigali, le 13 décembre 2006

Entre

**Christoffel Blinden Mission**

Dénommé –**CBM** dans le présent Accord

**Population Services International Rwanda**

Dénommé –**PSI**- dans le présent Accord

**Cooperation Allemande en Sante**

Dénommé **GTZ Santé** dans le présent Accord

Mme Valentine Kilibazaire

Mme Staci Leuschner

Dr KALK Andreas

\_\_\_\_\_  
(Signature)

\_\_\_\_\_  
(Signature)

\_\_\_\_\_  
(Signature)

### **Objective**

La Coopération Allemande en Santé en coopération et l'Ecole de Santé Publique (ESP) sont en train de réaliser une « étude de la faisabilité et l'analyse de base sur la santé en milieu scolaire » dans le districts de Ngororero et Huye au Rwanda. Dans ce contexte le ESP agira en tant qu'agence exécutive. PSI, CBM et la GTZ Santé se mettent d'accord d'appuyer l'ESP dans la réalisation de ce projet.

### **Durée**

Le présent Accord de Coopération est conclu pour une durée allant jusqu'au 28 février 2007.

### **Contribution de CBM**

La contribution du CBM pour réaliser l'objectif stipulé dans la section 1 se compose des activités ci-après :

- Libérer les membres de son personnel à participer dans la formation et l'étude pilot
- Libérer les membres de son personnel pour participer à la création des outils pour l'enquête
- Libérer les membres de son personnel pour participer dans l'enquête pour la collecte de données et l'analyses de la situation
- Libérer les membres de son personnel pour participer au traitement des élèves et la distribution des lunettes

### **Contribution des PSI**

La contribution du PSI pour réaliser l'objectif stipulé dans la section 1 se compose des activités ci-après :

- Libérer des pairs -éducateurs (PE) pour participer à la formation pour la sensibilisation des écoles primaires cibles
- Assigner les pairs -éducateurs (PE) pour la sensibilisation des élèves et des enseignants
- Autoriser la distribution et distribuer sûr'eau dans les écoles cibles

### **Contribution de la GTZ Santé**

La contribution de la GTZ Santé pour réaliser l'objectif stipulé dans la section 1 se compose des activités ci-après :

- Appui technique à la proposition lit en ouvre et évaluation de l'étude
- Finance de l'étude selon la convention séparée avec l'ESP
- Financement des per-diems logement (si nécessaire) et transport pour le personnel de PSI et CBM impliqué dans l'étude

## Annex 4 : TORs FEA



## Termes de Référence

### Objectif

La Coopération Allemande en Santé en coopération avec l'Ecole de Santé Publique (ESP) sont en train de réaliser une « étude de la faisabilité et l'analyse de base sur la santé en milieu scolaire » dans le districts de Ngororero et Huye au Rwanda. Dans ce contexte le ESP agira en tant qu'agence exécutive.

### Durée

Le présent contrat est conclu pour une durée allant jusqu'au 28 février 2007.

### Contribution de FEA

La contribution du FEA pour réaliser l'objectif stipulé dans la Phase 2 de Projet et l'étude de la faisabilité et l'analyse de base sur la santé en milieu scolaire se compose des activités ci-après :

La construction des installations sanitaires suivante :

1. Réservoir d'eau avec 5m<sup>2</sup> avec un raccordement dans la conduite d'eau existante à l'école primaire de Sovu dans le District de Huye
2. Réservoir d'eau avec 10m<sup>2</sup> à l'école primaire de Kiziguro dans le district de Ngororero
3. 12 latrines de EKOSAN à l'école primaire de Kiruhura dans le district de Huye
4. 12 latrines de EKOSAN à l'école primaire de Kiziguro dans le district de Ngororero
5. 10 Canaries de Clapets à l'école primaire de Sovu dans le District de Huye
6. 10 Canaries de Clapets à l'école primaire de Kiziguro dans le district de Ngororero
7. 10 Canaries de Clapets à l'école primaire de Kiruhura dans le district de Huye
8. 10 Canaries de Clapets à l'école primaire de Kirwa dans le district de Ngororero
9. La sensibilisation des élèves et des professeurs

## **Budget**

<b>Activités</b>	<b>Quantité</b>	<b>Jours</b>	<b>PU (FRW)</b>	<b>PT (FRW)</b>
<b><i>Construction des Installations Sanitaires</i></b>				
Canacles à Kirwa	10		10 000	100 000
Canacles à Kiziguro	10		10 000	100 000
Canacles à Sovu	10		10 000	100 000
Canacles à Kiruhura	10		10 000	100 000
Toilettes EKOSAN à Kiziguro	12		350 000	4 200 000
Toilettes EKOSAN à Kiruhura	12		350 000	4 200 000
Reservoir de l'eau et raccordement	1		2 300 000	2 300 000
Reservoir de l'eau	1		2 300 000	2 300 000
<b>TOTAL GENERAL</b>				<b>13 400 000</b>

**Annex 5: School Questionnaire**  
**SCHOOL QUESTIONNAIRE**  
*A General Information*

Question	Option	Answer
1. Date		
2. Interviewer		
3. Interviewed person		
4. Start		
5. End		

*B General School Information*

Question	Option	Answer
6. School name?		
7. Location?	a) _____ District: b) _____ Sector: c) Cell: _____	
8. Locality?	1= Rural; 2= Urban	
11. Type of roads near the school compound?	1= Tarmac ; 2= Dirt road	
9. Status of the school?	1= Public; 2= State supported; 3= Private religious funded; 4= Private Parents Association; 5= _____ Others, specify _____	
12. Source of income?	1= School fees, 2= Subsidies, 3= Selling produces crops/livestock, 4= Lending school properties, 5= _____ Others, specify _____	
10. What year was the school built and who built it?		
13. No. of teachers and heads of school?	a) Teachers: _____ b) _____ Heads _____ of school: _____	
14. No. of pupils?	a) _____ Total: b) _____ Males: _____	

	c) _____	Female:	
15. No. of classrooms?			

### C Health Issues

Question	Option	Answer
16. Distance of the school from nearest health facility?	_____ minutes walking distance	
17. What type of health facility?	1= Hospital 2= Health centre 3= Dispensary 4= FOSA Com 5= _____ Others, specify _____	
18. Is there anyone responsible for health issues at the school?	1= Yes, 2= No ( <i>continue with question 21</i> )	
19. If Yes, who is responsible for health issues in the school?	1= Pupils, 2= Teacher; 3= STE teacher 4= Head; 5= Parents/Community; 6= _____ Others, specify _____	
20. What is his/her task?		
21. If a child becomes sick at school, who takes care of the child/what is the procedure?		
22. Is there a HAMS committee/member at school?	1= Yes; 2= No ( <i>continue with question 27</i> )	
23. If Yes, who are the members?		
24. Did they receive sensitization?		
25. Is the committee active?		
26. What are their tasks?		
27. Do you teach STE?	1= Yes; ( <i>provide curriculum</i> ) 2= No ( <i>continue with question 32</i> )	
28. If yes, how many		

teachers are available for STE?		
29. In what classes do you teach STE?	1= First 2= Second 3= Third, 4= Fourth 5= Fifth 6= Sixth 7= All classes	
30. Do you have enough teaching material?	1= Yes 2= No	
31. Do you have the guidelines provided by the ministry?	1= Yes ( <i>continue with question 33</i> ) 2= No	
32. If No, why not?		
33. What kind of sport activities do you offer?	1= Football 2= Basketball 3= Netball 4= Athletics 5= None 6= Others, specify_____	
34. Who is responsible for sport activities?	1= Pupils, 2= Teacher; 3= Head; 4= Parents/Community; 5= Others, specify_____	

#### *D Maintenance Rules*

Question	Option	Answer
35. Is there any rules concerning the maintenance of school facilities?	1= Yes ( <i>please provide copy</i> ) 2= No ( <i>continue with question 39</i> )	
36. If Yes, who takes care that these rules are implemented?		
37. Are the children informed about the maintenance rules?	1= Yes, 2= No ( <i>continue with question 39</i> )	
38. If Yes, how are they informed?		

#### *E Compound Maintenance*

Question	Option	Answer
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39. Do you clean the school compound?	1= Yes 2= No ( <i>continue with question 43</i> )	
40. Who is responsible for cleaning the school compound?	1= Pupils, 2= Guard; 3= Part time jobbers; 4= Teacher; 5= Head; 6= Parents/Community; 7= Others, specify_____	
41. How often do you clean the compound?	1= At least once per trimester 2= At least once a month 3= At least once a week 4= Every day 5= Hardly ever	
42. What is included in cleaning the compound?		

### ***F Vegetation, Gardens, Animal raising***

<b>Question</b>	<b>Option</b>	<b>Answer</b>
43. Are there any trees on the school compound?	1= Yes; 2= No ( <i>continue with question 45</i> )	
44. If Yes, how many?		
45. Are there any flower, fruits or vegetables gardens on the school compound?	1= Yes 2= No ( <i>continue with question 51</i> )	
46. If Yes, who is responsible for gardening?	1= Pupils, 2= Guard; 3= Part time jobbers; 4= Teacher; 5= Head; 6= Parents/Community; 7= Others, specify_____	
47. How often do you do garden work?	1= At least once per trimester 2= At least once a month 3= At least once a week 4= Every day 5= Hardly Ever	
48. What type of crop do you grow?		
49. What kind of fertilizers do you use?	1= Organic; 2= Chemical; 3= None	
50. What are the crops used for?	1= Eaten at the school; 2= Sold; 3= Others, specify_____	
51. Does the school	1= Yes ;	

raise animals?	2= No (continue with question 55)	
52. If Yes, what kind of animals and how many?	1= Rabbits 2= Cows 3= Goats 4= Sheep 5= Poultry 6= Others, specify_____	
53. Who is responsible for animals?	1= Pupils, 2= Guard; 3= Part time jobbers; 4= Teacher; 5= Head; 6= Parents/Community; 7= Others, specify_____	
54. For what purpose do you keep animals?	1= Eaten at school 2= Sold 3= Others, specify	

### *G Waste Disposal*

<b>Question</b>	<b>Option</b>	<b>Answer</b>
55. Are there any dustbins available?	1= Yes 2= No (continue with question 58)	
56. If Yes, how many do you have?		
57. Where are they?	1= Classrooms; 2= Head office; 3= Outside; 4= Others specify_____	
58. Are there any other means of waste disposal?	1= Yes 2= No (continue with question 61)	
59. If Yes, what types of other waste disposal facilities are available?	1= Glass 2= Plastic 3= Metal 4= Paper 5= Compost for organic waste 6= None 7= Others, specify_____	
60. Who is responsible for these waste facilities?	1= Pupils, 2= Guard; 3= Part time jobbers; 4= Teacher; 5= Head; 6= Parents/Community; 7= Others, specify_____	

### *H Kitchen Facilities and Maintenance*

<b>Question</b>	<b>Option</b>	<b>Answer</b>
61. Does the school have a kitchen?	1= Yes; 2= No (continue with question 73)	
62. Who takes care of		

it?		
63. How is it financed?		
64. Who works there?	1= Contracted cooks 2= Parents 3= Others, specify _____	
65. Who cleans the kitchen?		
66. How often is the kitchen cleaned?		
67. Where does the kitchen dispose their waste material?		
68. Is it clean during the day of visit, describe?		
69. How is the kitchen equipped?		
70. Where does the water for cooking come from?		
71. Does it provide food for all children?	1= Yes; 2= No 3= Others, specify _____	
72. Do the children have to pay for the food and how much?	1= Yes; 2= No	

*I First Classroom Condition and Management*

Question	Option	Answer
73. No. of pupils classroom?	_____pupils	
74. Sound interference?	1= Yes, 2= No	
75. Does the class have enough openings for ventilation and/or lighting?	1= Yes; 2= No	
76. Walls material?	1= Bricks; 2= Mud; 3= Wood; 4= Grass/leaves; 5= No walls 6= Others specify : _____	
77. Walls status?	1= Clean; 2= Cracks; 3= Stains	
78. Blackboard?	1= Yes,	

	2= No	
79. Chairs/writing desk?	1= Yes, 2= No (continue with question 81)	
80. If Yes, how many?		
81. Roof material?	1= Tiles, 2= Iron sheets; 3= Sheeting; 4= Grass/leaves; 5= Others specify: _____	
82. Roof condition?	1= Not leaking, 2= Leaking, 3= Rusty iron	
83. Floor material?	1= Cement; 2= Earth; 3= Stones, 4= Slab	
84. Floor cleanliness?	1= Dusty; 2= Not dusty	
85. Floor status?	1= Damaged, 2= Not Damaged	

### *J Second Classroom Condition and Management*

<b>Question</b>	<b>Option</b>	<b>Answer</b>
86. No. of Pupils classroom?	_____pupils	
87. Sound interference?	1= Yes, 2= No	
88. Does the class have enough openings for ventilation and/or lighting?	1= Yes; 2= No	
89. Walls material?	1= Bricks; 2= Mud; 3= Wood; 4= Grass/leaves; 5= No walls; 6= Others specify : _____	
90. Walls status?	1= Clean; 2= Cracks; 3= Stains	
91. Blackboard?	1= Yes, 2= No	
92. Chairs/writing desk?	1= Yes, 2= No(continue with question 94)	
93. If Yes, how many?		
94. Roof material?	1= Tiles, 2= Iron sheets;	

	3= Sheetting; 4= Grass/leaves; 5= Others specify:_____	
95. Roof condition?	1= Not leaking, 2= Leaking	
96. Floor material?	1= Cement; 2= Earth; 3= Stones, 4= Slab	
97. Floor cleanliness?	1= Dusty; 2= Not dusty	
98. Floor status?	1= Damaged, 2= Not Damaged	

### K Water Facilities and Storage

Question	Option	Answer
<b>Water sources</b>		
99. What is the source of water for the school?	1= Shallow well; 2= Boreholes; 3= Spring; 4= Rain water; 5= Lake; 6= River 7= Pipe	
100. How far is the water source from the school?	1= At school 2= < 10 min; 3= 10-30min; 4= 30-60min; 5= > 60min	
101. Possible sources of water contamination?	1 = Animals; 2= Humans; 3= Water storage facility, 4= Latrines, 5= Others, specify_____	
102. Do you serve drinking water at school?	1= Yes; 2= No ( <i>continue with question 106</i> )	
103. How is the drinking water served at the school?	1= In cups; 2= In bottles; 3= On hands; 4= Other specify_____	
104. Is drinking water treated?	1= Yes; 2= No ( <i>continue with question 106</i> )	
105. If Yes, how?	1= Electrogaz; 2= Boiling at school; 3= Sûr'eau 4= Others, specify_____	

<b>Water Tank</b>		
106. Do you have a water storage tank?	1= Yes; 2= No ( <i>continue with question 115</i> )	
107. If Yes, where does the water come from?	1= Rain water 2= Pipe ( <i>continue with question 110</i> )	
108. If Rain water, is there a rain water cleaning system on the tank?	1= Yes; 2= No ( <i>continue with question 110</i> )	
109. If Yes, which one?	1= Filtering; 2= Roof washer; 3= Sieve	
110. What kind of construction material?	1= Concrete; 2= Bricks; 3= Stone; 4= Plastic; 5= Metals; 6= _____ Other, _____ specify	
111. Volume of the tank?		
112. Status of the tank?	1= Leaking; 2= Not leaking	
113. Tap on the tank?	1= Yes; 2= No	
114. Is there a washout pipe for the tank?	1= Yes; 2= No	
<b>Washing facilities</b>		
115. Are there any hand washing facilities on the compound?	1= Yes; 2= No ( <i>continue with question 118</i> )	
116. If yes, what type and how?		
117. Where are the hand washing facilities on the compound?		
118. Are there any showers at the school?	1= Yes ; 2= No ( <i>continue with question 120</i> )	
119. If Yes, are they separate for boys and	1= Yes 2= No	

girls?		
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*L Availability of Latrines and Status*

Question	Option	Answer
120. Are there latrines available?	1= Yes ; 2= No ( <i>continue with question 149</i> )	
121. Who built the latrines?	1= State; 2= NGO; 3= Parents; 4= School; 5= International organizations; 6= Villagers; 7= Others, specify: _____	
122. When were the latrines built?		
123. Type of the latrines?	1= Traditional Pit; 2= VIP, 3= Others, specify: _____	
124. Number of stances?		
125. Separate latrines for boys and girls?	1= Yes ; 2= No	
126. Separate latrines for teachers?	1= Yes ; 2= No	
127. Separate latrines for female and male teachers?	1= Yes ; 2= No	
128. Are there any other users of the latrines?	1= Yes 2= No ( <i>continue with question 130</i> )	
129. If Yes, who else uses the latrines?		
130. Privacy of users?	1= Walls 2= Door, 3= Spiral wall; 4= None, 5= Other, specify: _____	
131. Distance of latrine from nearest classroom?		
132. Distance of latrine from nearest water source?		
133. How deep is the remaining gap	1= Full; 2= Almost full;	

(approximately)?	3= Deep; 4= Very deep	
134. Wall material?	1= Bricks; 2= Mud; 3= Wood; 5= No walls, 6= Others, specify:_____	
135. Walls status?	1= Clean; 2= Presence of excreta; 3= Other Stains	
136. Roof material?	1= Tiles; 2= Iron sheets; 3= Grass/leaves; 4= None; 5= Others, specify:_____	
137. Roof condition?	1= Not leaking; 2= Leaking; 3= Other, specify:_____	
138. Floor material?	1= Cement, 2= Mud; 3= Stones	
139. Floor cleanliness?	1= Clean; 2= Presence of excreta, urine and/or water	
140. Floor status?	1= Damaged; 2= Not damaged	
141. Latrine infested with insects (i.e. flies, mosquitoes, cockroaches) and/or rats?	1= Yes, 2= No	
142. Smell?	1= Very Bad 2= Bad 3= Ok 4= None	
143. Sanitary material?	1= Yes; 2= No	
144. Outside latrine?	1= Clean; 2= Presence of excreta, urine and/or water	
145. Drainage facility for waste water?	1= Yes, 2= No	
146. Who takes care of the maintenance of latrines?	1= Pupils, 2= Teachers 3= Guard 4= Others, specify_____	
147. How often are they cleaned?	1= At least once per trimester 2= At least once per month 3= At least once per week 4= Every day 5= Hardly ever	

	6= Never	
148. How are they cleaned?	1= Swiping; 2= Water; 3= Disinfectant; 4= Others specify_____	

149. Any other comments:

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## Annex 6: Students questionnaire

### PUPILS' QUESTIONNAIRE

*Important notices for the Interviewer:*

**Please do not leave an answer blank** since this will change results! If the child refuses to answer a question, or if there is any other reason why you could not get an answer to the question please indicate this by writing 99 in the answer box and if necessary write your comment!

**Please be patient with the children!** The children are not used to this situation, they might be scared to answer questions

**Repeat Questions where necessary!** If you feel the child did not understand your question repeat it in other words and ask if they understood the question!

**Sometimes more than one answer is possible!**

#### A General Information

1. Date:
2. Interviewer:
3. Start at .....H.....
4. End at .....H.....
5. School name: \_\_\_\_\_

#### B Socio-Demographics

Question	Options	Answers
6. Name:		
7. Class:		
8. Age:		
9. Sex	1=Boy; 2= Girl	
10. Relationship with the Head of family	1=Father; 2=Mother; 3=Brother/sister; 4=Aunt/uncle; 5=Grand parent(s); 6= Others specify_____	
11. What profession does the head of the family have?	1= Teacher 2= Medical Staff 3= Agriculture 4= Military/Police 5= Craftsman 6= No profession 7= Don't know	

	8= Others	
12. What is the source of income in your family?	1= Salary 2= Selling produce 3= renting promises 4= Relatives 5= Friends 6= NGOs or other organizations 7= I don't know 8= Others	
13. Do you and your family have a health insurance?	1= Yes; 2= No; 3= Don't know	

### C Nutrition

Questions	Options	Answers
14. Did you have breakfast today?	1=Yes; 2=No;	
15. If Yes, what did you take? (describe)	1= Porridge 2= Bread 3= Tea 4= Fruits 5= Others	
16. Do you eat lunch?	1= Yes; 2= No, 3=Sometimes;	
17. If Yes, or Sometimes where do you eat it? *	1= At home; 2=At school; 3= Carry it; 4= Buy it 5= Canteen, 6= Others, specify_____	

### D Hygiene and Health (Knowledge and Practice)

Questions	Options	Answers
18. How often are you checked for cleanliness at school?	1= At least once per trimester; 2= At least once per month; 3= At least once per week; 4= Once per day; 5= Hardly ever; 6= Never 7= Others, specify _____	
19. Who checks you for cleanliness at school?	1=Teachers; 2=Heads, 3 Others, specify_____	
20. Who takes care of you when you are sick at school?	1=Dispensary; 2= Director 3=Teacher; 4=Student; 5=None, 6= Others, specify_____	

21. Do you cut/clean nails at least once every 2 weeks?	1=Yes; 2= No;	
22. Did you you're your clothes in the last week?	1=Yes; 2= No;	
23. Do you usually drink water when you are at school?	1=Yes; 2= No; 3=Sometimes	
24. Where does the water you drink at school come from?	1= From home, 2= From school; 3= Others specify _____	
25. Is the water you drink treated?	1= Yes; 2= No 3= Sometimes 4= I don't know	
26. What kind of water is healthy for drinking?	1= Boiled; 2= Treated, 3= Clean; 4= Don't know; 5= Others, specify _____	
27. What happens if the water you drink is not clean?	1= I become ill; 2= Nothing, 3= Don't know; 4= Others specify _____	
28. When do you brush your teeth?	1= Daily; 2= Weekly; 3= Don't know; 4= Others, specify _____	
29. Did you brush your teeth today?	1=Yes; 2= No;	
30. If No, why not?	1= I forgot it 2= Lost the brush 3= Don't have a brush 4= Others	
31. If Yes, what did you use?	1= Brush and toothpaste 2= Brush without toothpaste 3= Others, specify _____	
32. How many times should you brush your teeth?	1= 3 times a day 2= 1 time a day; 3=Weekly; 4= Don't know; 5= Others, specify _____	
33. Why should you brush your teeth?	1= To prevent tooth diseases 2= To prevent mouth diseases 3= To have clean teeth (bad smells) 4= To not loose teeth 5= Others, specify _____	
34. Do you wash your hands after	1=Yes; 2= No;	

defecating?		
35. Do you wash your hands after urinating?	1=Yes; 2= No;	
36. Do you use soap for washing your hands?	1= Yes, 2= No, 3= Sometimes	
37. If No, why not?	1= Don't have 2= Parents don't allow usage for washing hands 3= Others, specify _____	
38. Have you washed your hands today?	1= Yes; 2= No;	
39. When should you wash your hands?	1= Before eating; 2=After eating; 3= After using toilet; 4=After playing/ anything; 5= Don't know; 6= Others, specify _____	
40. Did you wash your body this morning or last night?	1=Yes; 2= No;	
41. How many times should you wash your body?	1= Daily, 2= Weekly; 3= Don't know; 4= Others, specify _____	
42. What kind of latrine do you have at home?	1=None; 2=Pit; 3=VIP; 4=Others specify _____	
43. Do you use the school latrine?	1=Yes 2= No 3= Sometimes	
44. Why should you use a latrine?	1= To prevent disease, 2= It is the law; 3= To protect environment; 4= To hide from others, 5= For hygienic reasons 6= Don't know; 7= Others specify _____	
45. Have you ever used any other place (facility) for urinating or defecating other than toilet in the last week during school time?	1=Yes; 2= No;	
46. If yes, why didn't you use the school latrine, specify?		
47. Do you usually	1=Yes;	

do physical exercises or play games at the school?	2= No	
48. If No why?	1= Sick; 2= Handicap; 3= No more balls/place; 4= Hate playing; 5= Others specify _____	
49. Do you have mosquito nets at home?	1=Yes; 2=No;	
50. If Yes, did you sleep under mosquito nets last night?	1=Yes; 2=No;	
51. If Yes, is the mosquito net treated?	1=Yes; 2=No; 3=don't know;	
<b>FOR GIRLS &gt;10 ONLY</b> (Girls are to be asked for permission first!)		
52. Do you have your period yet?	1=Yes; 2= No	
53. Who helps you when you have your periods at school	1= Female classmate; 2= Teacher; 3= No one; 4= Others specify _____	
54. Do you ever skip class when you have your period?	1=Yes; 2= No;	
55. What do you use?	1= Tissues for that; 2= Pads (Bwiza, kotex, ...) 3= Pieces of clothes; 4= None; 5= Others specify _____	
56. How often do you change yourself a day during your period?	_____times	
57. How often do you wash your body a day during your period?	_____times	

### E Health history and status checklist

Pupil's health conditions	Options	Answers
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The last time when you were sick what did you suffer from?	1= Fever/Malaria <sup>14</sup> , 2= Diarrhea, 3= Respiratory diseases; 4= Wound/injury 5= Cold/flu; 6= Don't know what 7= Others, specify_____	
What did you/ your parent do the last time you were sick?	1= HC/Hospital; 2= Home medication; 3=Tradi-praticiens; 4= No action taken (only resting) 5 = Magendu (charlatans) 6= Others specify_____	
In the last trimester did you miss school at any time?	1= Yes; 2=No;	
If Yes, what prevented you to come to school?	1= Sickness, 2= Housework; 3= Job; 4= Punishment 5= Others specify_____	
If Yes, how many days did you miss school?	_____ days	
Did you have fever in the last 2 weeks?	1= Yes; 2=No; 3= I don't remember	
Have you been feeling sick/weak in the last two weeks?	1= Yes; 2=No; 3= I don't remember	
Did you have diarrhea in the last two weeks?	1= Yes; 2=No; 3= I don't remember	
Did you have abdominal pain in the last two weeks?	1= Yes; 2=No; 3= I don't remember	
Did you have a cough, cold or breathing problem in the last two weeks?	1= Yes; 2=No; 3= I don't remember	
Did you have any pain in the mouth/the throat or the teeth in the last two weeks?	1= Yes; 2=No; 3= I don't remember	

<sup>14</sup> Malaria in Rwanda is sometimes referred to as Fever

Did you have jiggers “AMAVUNJA” in the last two weeks?	1= Yes; 2=No; 3= I don’t remember	
Did you have lice “INDA” in the last two weeks?	1= Yes; 2=No; 3= I don’t remember	

### F Observation and Physical Examination

Questions	Options	Answers
71. Does s/he wear shoes?	1=Yes; 2= No;	
72. Does s/he wear uniforms?	1=Yes; 2= No;	
73. Does s/he have cut/clean nails?	1=Yes; 2= No;	
74. Does s/he have clean and cut hair?	1=Yes; 2= No;	
75. Does the pupil have any sign of malnutrition	1=Yes; 2= No	
76. If Yes, specify (Dry scaly skin, edema, discolored hair...)?		
77. Does the pupil have any sign of anemia?	1=Yes; 2= No	
78. If Yes, specify symptoms		
79. Does s/he have any sign of skin conditions (fungus, rashes...)?	1=Yes; 2= No	
80. If yes, specify symptoms		
81. Does s/he have any ears problem (visible)?	1=Yes; 2= No	
82. If Yes, specify symptoms		
83. Does s/he have any throat problem (angina, redness)?	1=Yes; 2= No	
84. If Yes, specify symptoms		
85. Does s/he have any symptom of	1=Yes; 2= No	

cold/ flu?		
86. If Yes, specify symptoms		
87. Does s/he have any teeth/mouth problem?	1=Yes; 2= No	
88. If Yes specify symptoms		
89. Did s/he bring her vaccination card?	1=Yes; 2= No	
90. If Yes, is the vaccination up to date?	1=Yes; 2= No	
91. If No, what vaccinations are missing, specify!		
92. Does s/he have any eye problem (infection, redevye,) or reading or seeing problems?	1= Infection 2= Red eye 3= Can't read properly 4= Cant see things which are far 5= No Problem	
93. If you answered identified any eye problem the last question, refer the child to one of the eye specialists!!!		

### G Laboratory test

Test	What should be looked for	Results	Diagnosis
93. Stool	Worms, Amoebas, Amoebic cysts, bacterial infection, Giardia		

### H Conclusions

With respect to what has been observed during this health check-up please comment on any problems identified and what action should be taken by the child and their family.

Question	Options	Answer
94. Does the kid need to be referred?	1= Yes 2= No	
95. If Yes, why?		
96. Is the kid been given a tablet for de worming?	1= Yes; 2= No	
97. If No, why not?		
98. Did the kid bring the stool sample	1= Yes; 2= No	

99. Any other comment? \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

## Annex 7: Eye Questionnaire

### QUESTIONNAIRE DES YEUX

*Notes importantes pour les enquêteurs :*

**Svp ne pas laisser les blancs, écrire 99!** Si l'enfant que vous interviewez refuse de répondre à une question, ou si vous ne peut pas rechercher une réponse pour quelque raison, svp ne laissent pas un blanc mais écrire 99 comme réponse et si nécessaire commenter.

**Svp avoir la patience!** Les enfants ne sont pas employés à la situation, ont la patience avec eux, et expliquer vos actions aux enfants.

**Svp répéter les questions!** Si l'enfant ne semble pas comprendre la question. la répéter en d'autres termes!

#### Information Générale

1. Date:
2. Enqueteur:
3. Debut à.....H.....
4. Fin à .....H.....
5. Nom de l'école: \_\_\_\_\_

#### Identification de Interviewée

Question	Options	Reponse
6. Nom:		
7. Class:		
8. L'age:		
9. Sex	1=Boy; 2= Girl	

#### Questions Concernant L'histoire de Santé

Question	Options	Reponse
9. Avez-vous entendu du parler de maladies des yeux ?	1= Oui 2= Non	
10. Quels problèmes est-ce que tu avais?		
11. Depuis quand ?	1= 6mois, 2= 1an, 3= 2ans et plus	
12. Est qu'il à quelqu'un avec des problèmes oculaires dans ta famille?	1= Oui; 2=Non ; 3= Je ne sais pas	

13. Est ce qu'il y a des mouches qui se pose dans tes yeux ?	1= Oui; 2=Non;	
14. Est ce tu avait traiter ton problèmes des yeux ?	1= Oui; 2=Non	
15. Si Oui, qui est ce que tu as consulter? ?	1= Centre de Santé, 2= trad praticien, 3= Autres ;	

### Anamnèse

Question	Options	Réponse
Œil rouge, aigu	1= Qui ; 2= Non	
Grattage oculaire	1= Qui ; 2= Non	
Douleur oculaire	1= Qui ; 2= Non	
Diminution de la vision	1= Qui ; 2= Non	
Ne pas lire	1= Qui ; 2= Non	
Autres :		

### Acuité Visuelle (AV)

Question	Options	Réponse
Acuité visuelle sans correction	OD;                    OG ;	
Acuité visuelle avec correction	OD ;                    OG ;	
Commentaire		
La vision d'enfant	1= Bonne vision 6/6 - 6/18 2= Vision faible 6/24 - 6/60 3= Aveugle (cécité) <6/60 – PL 4= Cécité total PPL	

### Examen de Base

Question	Commentaires
Paupières	
Conjonctives	
Cornées	
Pupilles	
Chambre antérieur (CA)	
Cristallin	
Autres	

## Diagnostic

Question	Option	Réponse
Conjonctivites ; allergiques	1= Qui ; 2= Non	
Bactériennes	1= Qui ; 2= Non	
Cicatrice de la cornée	1= Qui ; 2= Non	
Cataracte	1= Qui ; 2= Non	
Glaucome	1= Qui ; 2= Non	
Traumatisme oculaire	1= Qui ; 2= Non	
Anomalies de réfraction	1= Qui ; 2= Non	
Myopie	1= Qui ; 2= Non	
Hypermétropie	1= Qui ; 2= Non	
L'astigmatisme	1= Qui ; 2= Non	
Presbytie	1= Qui ; 2= Non	
Ulcère de la cornés	1= Qui ; 2= Non	
Uvéite	1= Qui ; 2= Non	
Tumeur	1= Qui ; 2= Non	
Autres (à préciser)	1= Qui ; 2= Non	

### Conduite à Tenir

En ce qui concerne ce qui a été observé pendant ce contrôle de santé, svp commenter aux tous les problèmes identifiés et le quels mesure vous avez pris et quels devrait être prise par l'enfant et leur famille

Question	Commentaires
16. Réfraction	
17. Quelles mesures est-ce que vous avez pris ? (Traitement)	
18. R/ 19. R/ 20. R/	
21. Est qu'on doit référer l'enfant à l'hôpital?	1= Oui 2= Non
22. Si, Oui pour quoi?	

### Commentaires

Autres commentaires : \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

## Annex 8 : Findings of the interviewers Questionnaire :

Question	Results
Combien de temps est ce que vous avez pris pour compléter le première interview?	En moyenne 28 ;8 Minutes
Combien de temps est ce que vous avez pris pour compléter le deuxième interview?	En Moyenne 26 Minutes
Est-ce que vous pensez c'était trop longue ?	12 Non 2 Oui Pas de réponse
Est-ce que vous avez des problèmes avec comprendre les questions ?	15 Pas des problèmes
Si Oui, avec quelles ?	N.a .
Si Oui, est ce que vous pensez en doit supprimer cette question, où est-ce que vous pouvez le dire dans d'autres mots ?	N. a.
Est-ce que l'enfant a eu des problèmes avec comprendre les question ?	Pour 12 Il y n'a pas eu des problèmes 3 il y a eu des problèmes
Si Oui, avec les quelles ?	55, 73, 72
Si Oui, est ce que vous pensez en doit supprimer cette question, ou est-ce que vous pouvez le dire dans d'autres mots ?	Il ne pense pas que en doit supprimer les questions
Est-ce que vous avez répété des questions ?	7 Non 8 Oui
Si oui ; les quelles et pourquoi ?	12 n'est pas compréhensible, 14, 31, 34 a cause de l'ignorance et pauvreté 72, 73 l'enfant ne connaissait pas Amavunja, Inda 55 l'enfant ne connaissait pas le règle Tous pour le 1 <sup>ier</sup> année le Partie D en général
Est-ce que vous avez rencontres des autres difficultés ?	12 Non 1 Oui 2 n'ont pas donné une réponse
Si Oui, lesquelles ?	27 Il y a 2 réponse Oui ou Non Juste quelquefois

## Annex 9 : List of Abbreviation

CBM	Christoffel Blindenmission
DHS	Demographic Health Survey
ESP	Ecole de Santé Publique
FRESH	Focusing Resources on Effective School Health
FEA	Fond de l'eau es assainissement
FOSACOM	Formation Sanitaire et Communautaire
HAMS	Hygiène et Assainissement en Milieu Scolaire
IEC	Information Education Communication
KHI	Kigali Health Institute
MOH	Ministry of Health
MoU	Memorandum of Understanding
P.E.	Peer Educator
PHAST	Participatory, Hygiene and Sanitation Transformation
PSI	Population Service International
TFR	Total fertility rate
UNICEF	United Nations International Children Fund
WFP	World Food Programme
WHO	World Health Organisation

## **Annex 10: References**

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