ANNEX I:

Methodology and Results of the formative research on hand washing with soap and latrines use

METHODOLOGY

Hygiene practices are a relatively sensitive subject, in that many of them pertain to sensitive issues and are an expression of the idea a person has of his position in society. Defecation is a natural human process yet many people do not wish to be observed heading towards the toilet. Handwashing with soap, which may seem like an ordinary activity, has several underlying elements associated with it and suddenly being made aware of these can damage the self-esteem of those who do not practice it. The methodology used took into account all these aspects that required a certain level of discretion and a tactful approach. The method used was, therefore, mainly qualitative, but was supplemented by a quantitative survey conducted with around 100 heads of households or their representatives to assess the extent of those practices observed. This survey was conducted by professional interviewers with experience in research and teaching. The aim was to enable people to speak freely, uphold their dignity and self-respect and ensure young schoolchildren were neither upset by the survey, nor perceived it as a means of cataloguing the hygiene methods used within their respective families.

2.1 TYPE OF STUDY AND DATA COLLECTED

This study was a social anthropological study into cultural, hygiene and disease prevention practices in the *cercle* of Sikasso. It enabled information to be collected on the motivations and barriers to latrine use and handwashing with soap among children (boys and girls) and on the management of menstruation by girls and the information sources and the types of role models that the children have access to. To gain a better understanding of these aspects, the study looked at the following:

- Social development history: sanitation and school infrastructure, hydrography;
- Household and school waste and garbage management practices: presence of latrines, access to water and soap, infant hygiene;
- Households' living conditions: size, education, wealth, poverty.

The following data was collected:

- The history of cultural and religious practices, alliances and their forms, economic activities and their development;
- Social development history: programs and projects, the actors involved, the associations, the work carried out and the perception of results;
- Hygiene and sanitation practices**;** practices considered priorities by communities compared to those put forward by development actors, managing menstruation;
- People's living conditions and standard of living;
- Practices for looking after the vulnerable, strangers and incomers in general;
- The information flow within the village.

With this in mind, discussions were held on the following themes:

1. The village background: founders, settlement, the ruling clan, other clans, alliances (inclusion, exclusion), relationship with neighboring villages;
2. Common diseases, particularly among children;
3. Communication channels and networks;
4. Development interventions, particularly as regards total sanitation: state, NGO, associations etc.;
5. Family/community involvement in development programs.

2.2 STUDY AREAS

The *cercle* of Sikasso, which is Save the Children's area of intervention, includes 130 schools/villages[1], 60 of which are currently being monitored and taking part in the pilot program. In addition to the town of Sikasso, the study initially aimed to look at a sample of 29 villages. As a result of a validation workshop organized in Sikasso by the project managers and feedback from certain partners, this sample was reduced to 18 villages and two neighborhoods of the urban commune of Sikasso, which in the report are described as a school/village. The schools/villages were spread out over 10 communes, with two villages selected from each commune, one of which was the commune's administrative center. The other village was either selected at random or identified by Save the Children during the abovementioned workshop based on work conducted in these villages by the NGO. The following villages were selected:

Table N°1: Study areas

Communes	**Villages/Neighborhoods**
Sikasso	Banconi
	Wayerma
Doumanaba	Doumanaba
	Boro
Dandéresso	Dandéresso
	Nébadougou
Farakala	Farakala
	Kandiadougou
Kaboïla	Kaboïla
	Madoubougou
Niéna	Niéna
	Karangasso
Kignan	Kignan
	N'gana
Kléla	Kléla
	Loutana
Zanférébougou	Zanférébougou

[1] The term 'schools/villages' is used to denote that the villages have been included because they contain a school.

	Mahadougou
Gongasso	N'Tjibougou
	TabaraKo

Given the reduced number of villages, it should have been possible to spend more time working within the schools. Unfortunately, the school holidays were imminent at the time of the study which rather disrupted the schedule, meaning the study was only able to be carried out in nine schools.

2.3 THE STUDY'S TARGET GROUPS

Information was collected from:

- **Primary targets:**

➢ Children ages 10-14 from nine primary schools, and their teachers;

➢ Households (father and mother). Over 100 households responded to the survey and around 60 heads of household or their representatives agreed to take part in qualitative interviews;

➢ Women and young people: two focus groups were held in each village with a minimum of six people per group of women and per group of men. Over 120 people of both genders participated in the focus groups.

- **Secondary targets**: these included the following categories:

➢ Community leaders: village heads and councilors, religious heads. The village council was questioned in each village visited. Every council was attended by the head of the village and an average of between 4 to 6 councilors;

➢ Administrative and political authorities, mayors and councilors, the president of the *cercle* council. The president of the *cercle* council and the mayors (including one female mayor) or their representatives in the commune administrative center were also surveyed. As members of the administrative authority and technical departments, the study also involved the participation of: six sub-prefects; the regional director of health of Sikasso and his managers in charge of hygiene and planning; and the regional director of sanitation and four of his staff.

➢ Civil Society Organizations (NGOs, associations). These included the parents' associations, as well as the managers of certain NGOs active in the sanitation field, as part of PASEPARE (Programme d'appui au secteur Eau potable, Assainissement et ressources en Eau; or the *Water Supply, Sanitation and Water Resources Support Program*), for example, working on the construction of the Doumanzana and Kignan water towers. An in-depth interview was held with the Executive Director of IRED-Mali (Innovation Réseaux pour le Développement – Mali; or the *Innovation Network for Development - Mali*) and two of his staff. IRED-Mali, with support from a French association, has been conducting a handwashing project.

2.4 SURVEY TECHNIQUES

The survey used the following techniques:

- **Documentary research:** A review of written documentation and materials provided an insight into the

background and development of actions undertaken in relation to hygiene and handwashing. It also highlighted the extent of the issues and barriers encountered by the staff and agencies working to improve hygiene practices. As a result of the documentary review, information on the prevalence of diseases caused by a lack of associated hygiene measures was collected, notably in Sikasso.

- **Open and semi-structured individual and group interviews** constituted the main sources of information. They were held with all the aforementioned stakeholders involved in the management of sanitation and environmental services. Information collected during these interviews was further examined during the focus groups, which were attended by virtually all stakeholders involved in sanitation activities in their respective villages.
- **In-class simulations** were carried out in nine primary schools with 6th grade children ages 11-14. As these simulations were conducted just as school was breaking up for the holidays, classes had to be specially reconvened and not all children were present. There were rarely more than five or six children absent from each class, however. The lesson focused on hygiene, the use of latrines and handwashing with soap. This session was supplemented by interviews with the teachers and informal conversations with children in the school yard. As a result of this review, it was possible to identify those obstacles preventing children from applying the lessons learned in school. Questions mainly concentrated on:
  - Handwashing with soap: motivations (moments and occasions when only water is used, then water and soap; the reasons for this and why soap is used at any particular time); barriers (why the children do not wash their hands with soap at critical times); the importance of using soap;
  - Using the latrines (motivations, barriers);
  - Managing menstruation: What do the young girls do? Who advises them?
  - Young people's influences and role models, other sources of information outside of school.
- **Focus Group discussions**: Small groups of people were formed in each village/school consisting of women of working age and men of working age or male heads of the household. These interviews provided an understanding of traditional hygiene practices, the utilization of and perceptions associated with water, soap and latrines.
- **Direct observation:** This was undertaken in both the villages and schools. It enabled observation of facts not mentioned during any of the interviews but vital to understanding individual and group hygiene behavior. Using this method, the general situation in the villages, schools and households was also able to be identified: garbage disposal, the condition and presence of latrines, water and soap, and of handwashing facilities. The study particularly focused on the following aspects:
  - Condition and state of the villages and housing; housing (cleanliness, architecture, location of latrines, water storage tanks);
  - Physical state and condition of the children;
  - Social spaces: markets, wells, mosques, churches, sacred trees or forests;
  - Condition of the facilities;
  - Number of people entering and leaving the toilets in a day, in both school and households.

2.5 DATA COLLECTION TOOLS

2.5.1 THE INTERVIEW FRAMEWORK

This was used for conducting the individual interviews and focus group discussions. It contained:

- Geographical and population data;
- The administrative structure and local governance;
- The social structure and ethnic composition;
- Fundamental cultural values (places of worship, fetishes, annual events);
- Clan and cultural rites and practices: initiation and preparation of oblations to nature, to the ancestors, etc.;
- Approach and diagnostic methods used to manage disease and sanitation in general;
- Knowledge and skills related to participation in sanitation programs and projects;
- Family and stakeholder social responsibilities for the prevention/management of social risks associated with managing the environment and sanitation;
- Opinion leaders and community-based organizations;
- Local partners working on actions as part of health and hygiene projects;
- The communication flow: to ascertain which groups communicate most information so as to better focus advocacy efforts, the major events, means of disseminating information, the responsibilities of the different social strata for monitoring information.

2.5.2 THE HOUSEHOLD QUESTIONNAIRE

This was designed for illustrative purposes for the heads of the households to reconcile the range of statements made. Through the questionnaire it was possible to identify households' sociological characteristics, their size, their principal activities, the number of household members employed, the head of the household's profession, any secondary activities, other sources of income, the sanitation facilities (any latrines and their condition, handwashing facilities), household garbage management, presence of soap, who purchases soap and why, etc.

2.6 DATA ANALYSIS AND PROCESSING

- **Content analysis:** The qualitative data underwent content analysis to enable identification of recurrent themes. The coded and translated data was thus able to be verified and validated prior to being processed and formally analyzed.
- **Analysis of quantitative data:** The quantitative data was analyzed using SPSS software, as this was considered particularly suitable for ascertaining general and specific trends from the sociological categories interviewed.

2.7 TIMEFRAME AND HUMAN RESOURCES

- **Timeframe**

The study was carried out over a period of 30 days, starting on 23 June 2011 with the validation workshop held in Sikasso.

- **Human resources**

The study was coordinated by the principal consultant and conducted by 15 interviewers and four supervisors, all doctoral students at ISFRA (Institut Supérieur de Formation et de Recherche Appliquée; or the *Higher Institute of Training and Applied Research*). In the field, the interviewers were divided into five groups of three plus one supervisor and each group covered two communes. Each team visited two villages per commune in 10 days. The survey of the urban commune of Sikasso was undertaken by the consultant and his assistant.

The result of the formative study is as follow:

RESULTS

3.1 SOCIAL ANTHROPOLOGICAL CHARACTERISTICS OF THE STUDY AREAS

3.1.1 PHYSICAL CHARACTERISTICS

In addition to belonging to the same administrative district, the villages and neighborhoods studied also shared several similar geographical and human characteristics. Situated in the south of the country, they have a Guinean climate and experience higher rainfall than anywhere else in the Republic of Mali. On the whole, the terrain is flat with patches of heavily wooded areas. The *cercle* of Sikasso receives its water only from rivers, which dry up during the dry season. The rocky ground complicates efforts to exploit groundwater and, in places, the traditional wells commonly found throughout the area often experience the same problems in the dry season as the rivers.

3.1.2 POPULATION

The population appears relatively homogenous, with the predominant population groups being the Senufo and the Miniyanka, who are from the same cultural ethnic group. The administrative centers of the communes, as well as the urban commune of Sikasso, are home to an immigrant population; people having come from all over Mali, and from the Center (Mopti) and North (Gao, Timbuktu) regions, in particular, as a result of the severe droughts of the 1970s and 1980s. The *cercle* of Sikasso was already one of the most densely populated *cercles* in Mali, even before this wave of immigration. As shown in the table below, this population density is substantiated by the population figures for the villages studied, which range from a minimum of over 3,000 inhabitants to a maximum of over 5,000:

Table N°2: population of the study areas

Communes	Villages/ Neighborhoods	Village population	Commune population
Sikasso	Banconi	Spontaneous Unspecified	69,577
	Wayerma	4,381	
Doumanaba	Doumanaba	3,528	10,088
	Boro	1,095	
Dandéresso	Dandéresso	2,051	20,387
	Nébadougou	1,813	
Farakala	Farakala	913	6,204
	Kandiadougou	951n	
Kaboïla	Kaboïla	3,024	22,452
	Madoubougou	348	
Niéna	Niéna	5,228	29,788
	Karangasso	1,276	
Kignan	Kignan	7,824	19,137
	N'gana	1,713	
Kléla	Kléla	4,189	14,193
	Loutana	2,142	
Zanférébougou	Zanférébougou	2,734	4,321
	Mahadougou	1,366	
Gongasso	N'Tjibougou	737	5,946
	TabaraKo	507	
	Total	**45,820**	**202,093**

Source: Mali cartographic data, 1999, Mission for Decentralization.

These populations are still controlled by the indigenous communities who monopolize not only traditional power, but also modern political power as mayors, town and commune councilors and parliamentary representatives. There are cases where non-natives are heads of a neighborhood, but their role as chief appears to be more a position of servitude as customary ownership, and land ownership in particular, remains the preserve of the descendents of Tiéba and Babemba TRAORE, founders of the Senufo kingdom of Kénédougou. These descendents and, to a lesser extent, those of the BERTHE have taken over leadership of most of the villages studied, which are also home to other ethnic groups such as: the Gana, Samoko, Peuls, Sarakolé, Malinké (KEITA) and the Bambara, as well as those from the regions mentioned above, Bozos, Dogons and Sonrhaï.

The traditional management methods employed are a result of the homogenous nature of the population. In all the villages studied, the traditional authority continues to act as an effective deterrent. It is impossible to take an important decision without going through the traditional head and his village council. This step is essential to any activity within the villages.

3.1.3 POLITICAL ORGANIZATION

With the exception of some newly created neighborhoods, the principle of seniority remains central with power being granted to the oldest of the elders. Alongside the traditional power, there are also village organizations and associations whose structure is based on age, gender and marital status, particularly that of women. These organizations, which are slowly being replaced by modern associations, nevertheless still have strong representation in the village council, for whom they act as a driving force. In contrast, the modern associations (see the non-exhaustive list in the annex) position themselves as partners of the modern political powers: the state administration and local commune councils.

3.1.4 ECONOMIC ACTIVITIES

Like its region, the *cercle* of Sikasso has the highest economy of all the *cercles* in Mali. Aided by its natural environment, its economy is predominantly based on agriculture. Indeed, 98% of the households surveyed are farming families, with the majority of these making a living entirely from farming. Even those with a different profession (livestock breeder, trader) stated that agriculture was a secondary source of income. Agriculture here is used in its broadest sense to include farmers growing dry crops, such as maize or millet, as well as growers, low-land rice farmers, truck gardeners and, particularly cotton growers. Trade is not highly developed but each village studied has a weekly market and the largest villages have small shops and/or stalls from where it is possible to purchase basic items, such as sugar, milk and soap. The soap is sold both in solid form and as a powder. The price of powdered soap varies from 25 CFA Francs for a small packet to 700 CFA Francs for a large packet of 500g. Solid soap can be divided into three different types: there is the national brand of soap (Koulikoro), the foreign brand (BF) and the local brand made from potassium. The price of solid soap varies from between 100 and 350 CFA Francs. The study established that the local soap, made by groups of women or members of a particular household, is often more expensive than commercially made soap. The local soap is also larger and has a wider range of uses than the other types of soap. The study also noted that soap, regardless of the type, was present in all the villages studied.

Economic activities in the villages have also been supported by the work of technical partners. A review of social development in the communes and villages studied shows the temporary or permanent presence of a number of NGOs, whose influence has led to the creation of development associations covering all areas of social and economic life: the promotion of health, education, cleanliness, water management, solidarity and mutual aid.

3.1.4 HEALTH

The reported diseases are predominantly malaria and childhood diseases such as diarrhea and respiratory infections (coughs, colds, throat infections). Malaria was presented as the disease of one season, with diarrhea being the disease of all seasons: 'the hospital is always full of children suffering from diarrhea" (a woman from Sanoubougou, Sikasso). The data provided below from the Regional Directorate's unit of statistics confirms this statement, while at the same time illustrating that the disease is most often contained and has a low impact on the mortality rate. Both the healthcare workers and people surveyed gave the same reasons as to the cause of this illness, namely: poor nutrition, dirty water and, more generally, an unhealthy environment. In addition, the study also examined the hygiene and sanitation activities undertaken within the communes and villages visited. In particular, it aimed to identify the programs being developed in this area and some of their actions.

3.1.5 OVERVIEW OF HYGIENE AND SANITATION PROGRAMS

The program mentioned most frequently and which can be found in all the villages is the Programme d'appui aux Collectivités Rurales (PACR; or the *Rural Local Authorities Support Program*). After having carried out work to raise public awareness of hygiene issues, PACR then set up hygiene committees, mainly run by women, to act as intermediaries and monitor those hygiene actions that take place in the village. The program also trained young people to construct slabs for both compounds and latrines. Unfortunately, these young people have been disheartened by the lack of general interest among the population. The women, however, remain active, although the pace of their work has slowed in certain villages. The Food and Agriculture Organization of the United Nations (FAO) was also mentioned in several villages (Kaboïla) where boreholes had been drilled to supply the population with drinking water. Some of these boreholes were not in operation at the time of the team's visit, however.

- The action research and development assistance group, GRADECOM (Groupe de Recherche Action et d'Assistance pour le Développement), has worked throughout the *cercle* of Sikasso to help with the construction of latrines built with durable materials, and the construction of wells and wastewater evacuation systems in both villages and schools. In some villages, people are still at a loss to understand why GRADECOM has ceased its activities: "We haven't done anything or developed strategies against its activities. We are not the real reason the project has failed, the NGO abandoned us", (women in Farakala). However, according to other sources, people were unwilling to contribute to the construction costs, a fundamental prerequisite for continuing with the project: "Everybody wanted their latrine at the same time and the fact that construction of each latrine had to be scheduled in was never properly explained. As a result, people refused to pay the contributions and the project failed" (Kandiadougou, Farakala).
- The network of traditional communicators for development, RECOTRADE (Réseau des Communicateurs Traditionnels pour le Développement), Save the Children, American Peace Corps volunteers and the innovation network for development in Mali, IRED-Mali (Innovation Réseaux pour le Développement), were mentioned for their hygiene and sanitation activities and for the resulting behavior changes in handwashing, use of latrines and waste and garbage management practices.

RECOTRADE has trained an intermediary in each village to raise awareness, while Save the Children works with community-based facilitators.

Like Save the Children, IRED-Mali's work centers on schools and children, promoting handwashing and the use of latrines for defecation. With support from Association Sœur Emmanuelle (ASMAE[2]) and Fondation MACIF (Mutuelle des Artisans Commerçants et Industriels de France, or the *Mutual insurance company for the Traders and industrialists of France*), IRED –Mali runs a school health program. As part of its action strategy, IRED has set up hygiene clubs in the schools with which it works (Korvédougou, N'Tjibougou, Gongasso commune) and teaches the club members how to make soap in order to make this more widely available in both the school and the village.

The Peace Corps volunteers go door-to-door explaining the benefits of the practices they promote, namely: using the latrines, covering the pits, handwashing with soap and managing household waste.

In addition to actions undertaken by NGOs, there are also those of the state's decentralized technical departments such as the Regional Directorate of Sanitation and Pollution and Nuisance Control (DRACPN) and the Regional Directorate of Health through its hygiene division. DRACPN runs a community-led total sanitation (CLTS) program in the villages within Kadiolo, one of the *cercles* in the Sikasso region not involved in this current study. DRACPN is also acting as social intermediary for UNICEF as part of a program to construct 276 latrines in 16 communes and primary schools. DRACPN is the local contracting authority and provides back-up support to the program, notably to ensure that latrine construction is in line with the national policy which stipulates that, for a ratio of one latrine to 50 children, three toilet blocks must be built per school. As part of its previous activities, DRACPN has trained at least 50 masons to make SanPlat slabs, in addition to another 15 as part of PADS (Danish – Swedish support program) and 45 more with AFD (French Development Agency) support, in the *cercles* of Kadiolo, Sikasso and Bogouni, which are all located within the same region. DRACPN managers maintain that, as a result of their awareness-raising and information-sharing efforts, it will soon be inconceivable for a village in the *cercle* to be without latrines.

According to its director, the Regional Directorate of Health does not really manage any specific hygiene and sanitation programs. Although as part of its implementation of national programs it organizes the annual national handwashing day and promotes handwashing kits, management of these activities is mainly carried out by the National Hygiene Directorate.

The success of projects mentioned by the people surveyed has been mixed. Some have resulted in a better understanding of the importance of using the latrines and have enabled many families both to build a latrine in their compound and to improve their wells by preventing the inflow of run-off water. In certain places, they have contributed to the construction of septic tanks and, through the sale of compost, have provided the women's associations with a revenue-generating activity. The women questioned recognize that these projects have had an impact on the way they operate, as they have now set themselves up as a

[2] ASMAE is an acronym that combines the name of the Sister Emmanuelle Association (ASM) and its motto: Act, Support, Mobilize for our children's future.

cooperative or association, etc. which helps them reduce costs and obtain grants. Nevertheless, most of these projects encountered several difficulties. Some of those mentioned include:

- The poor approach on the part of the population, who did not always have a proper understanding of the partners' strategies. Many young people expected to find work on these projects, whereas the majority of projects wanted to work with local entrepreneurs. In the same way, a number of women's associations expected all their costs to be met and remuneration for undertaking public health and hygiene activities;
- Low mobilization and lack of involvement from opinion leaders, 'people of influence', including some of the better-informed women;
- The type of soil in certain compounds affecting the construction of latrines. Building latrines on very hard ground requires financial resources far beyond the population's means. Furthermore, certain projects insisted that durable materials (cement, reinforced concrete) be used, which also cost more than the population could afford;
- Insufficient or even total lack of monitoring of ad hoc activities, particularly as regards the monitoring of handwashing practices following national handwashing day. This situation was caused by a lack of resources, as these were only allocated to the actual day itself.

Do the difficulties encountered by the projects explain the hygiene and sanitation characteristics of households? As mentioned above, the study undertaken at household level took the form of a survey, the aim of which was to gain a better understanding of the hygiene and sanitation issues experienced within these households and to assess any potential impacts.

3.2. CHARACTERISTICS OF THE HOUSEHOLDS SURVEYED

3.2.1 SOCIOLOGY OF HOUSEHOLDS

The study questioned 100 households. The heads of these households were predominantly male, with 96% of households having a male at its head, compared to only 4% of households with a female head. The heads of household questioned were also mainly farmers/growers (71%), with only 2% being livestock breeders. Active civil servants and people in retirement make up around 11% of the final sample, which also includes 3% and 4% of tradesmen (joiners, masons).

Eighty-three percent of those heads of household surveyed are the owners of the compound in which they live, with 72% of these having inherited it from family. Around 13% have bought their house and 17% rent, are caretakers or live in houses provided by their employer, for example teachers and nurses.

The fact that the compound is a family property means that it is occupied by several households, often descended from the same male line. This can be seen in the data, which shows one compound as housing up to 50 households, and two others with between 30 and 25 households each. The average per compound, however, was calculated to be around 8 to 10 households. With regard to the number of people per

household, this was seen to be over 20 in 29% of households, with 30% of households containing between 6 and 12 people. The table below shows an average of around 20 people per household.

Table N°3: Household size

No. of people	No. of households	Percent
From 1-6	24	24.0
From 6+12	30	30.0
From 12-20	15	15.0
Over 20	29	29.0
Not specified	2	2.0
Total	100	100.0

The households surveyed were also characterized by the fact that 81% contained very young children (0-5 years) and that there was a relatively high number of children of school age. The largest household included about 50 schoolchildren, whereas only 7% of households contained no schoolchildren at all.
The question pertaining to the number of former schoolchildren in the household highlighted the fact that, in the villages studied, children have only recently begun to attend school. There were no former schoolchildren present in 70% of the households surveyed. Even those households with the highest number of former schoolchildren only had a maximum of three as only three children had ever attended school. The fact that education is a fairly recent development is confirmed by the level of schooling received by the heads of the household, as 66% of them did not attend school; although some of these stated that they had been taught to read and write or had received Koranic teaching. Out of those who did attend school, the survey identified only one head of household who went on to higher education and six who received a secondary education. In contrast, 77% of households contain at least one person able to read and write and the data shows the number of people with literacy skills in some households to be between 5 and 25.

Emigration, like attending school, is also a recent development in the villages studied. At the time of the survey, 54% of households said one of their members had emigrated, while 55% of households contained no former migrants.

Schooling, emigration and literacy, just like being a member of a voluntary association, can be considered activities that further individual independence and fulfillment. The question relating to association membership revealed that 75% of households contain active members (the head of the household himself or his wives and children and other people under his care) of one or several associations: women's associations (Benkadi) working on various causes, young peoples' associations, farmers' groups, cotton-growers associations, etc.

This desire for independence can also be seen in the fact that the majority of households own modern information technology and telecommunications equipment: radios, television, video recorders and cell

phones. Indeed, one or more of these items were present in all but 4 of the 100 households questioned. All of these 96 households were equipped with at least one radio and 8 households also had a satellite dish.

3.2.2 HEALTH AND HYGIENE IN THE HOUSEHOLDS

The health-related questions aimed to find out whether there had been any illnesses in the household during the six months preceding the survey and, if so, who was affected, with what type of disease, what caused it and how it was treated. Illnesses within the last six months were reported in 76% of the households surveyed. The interviews also revealed that there had been a case of illness in nearly all households within a period exceeding six months. According to the healthcare workers, the morbidity rate is very high for all social groups, but particularly for children aged between 0 to 14 years old, with 0 to 5 year olds being particularly vulnerable, as illustrated in Table 4 below, where children in this age group had fallen ill in 43% of the households questioned:

Table N°4: Categories of people affected by disease in the households surveyed

Category of people affected	Households	Percent
Nobody affected	24	24.0
Children between 0 and 5 years	43	43.0
Children between 6 and 14 years	13	13.0
Adults up to 60 years old	7	7.0
Over 60 years old	10	10.0
Unspecified	3	3.0
Total	100	100.0

There were three main types of illness reported. The first of these is 'fariguan' (fever), mentioned by 35% of heads of the household and which is, in fact, more a symptom than a disease. However, by analyzing people's descriptions of this fever, this term would appear to indicate 'soumaya', usually translated as malaria. This is followed by diarrhea-type illnesses (15%) and respiratory infections (6%). These diseases are those that affect children of between 0 and 14 years old, the target of this study. The prevalence of diarrhea is confirmed by data from the Regional Directorate of Health's planning unit, summarized in the table below:

Table N° 5: Diarrhea presumed to be infectious, not including cholera

Age group	2008	Deaths	2009	Deaths	2010	Deaths
1-4 years old	1,266	0	12,308	0	14,510	0
5-9 years old	1,670	0	2,899	2	3,675	1
10-14 years old	482	0	2,395	0	2,637	0
Total	**3,418**	**0**	**17,608**	**2**	**20,822**	**1**

Source: Regional Directorate of Health's Statistics and Planning Unit

While diarrhea does not particularly affect the infant mortality rate, with 41,818 cases it is nonetheless harmful and causes concern among heads of households and the mothers of those children affected.

A commonly cited disease and one that affects both children and their mothers is “Konona djoli” (soreness of the stomach). This can be transmitted to the child by the mother either before birth or during breastfeeding. The healthcare staff questioned likened this condition to Candida. Other illnesses and conditions associated with pregnancy, childbirth and, often, aging (cataracts, glaucoma, rheumatism) were also mentioned, as were so-called emerging conditions, such as high blood pressure.

In order to gain an understanding of the causes of these illnesses, the survey first set out to determine the methods used to treat these conditions. From the data collected, it can be seen that several different treatment methods are used, often in parallel to each other, and that more and more people are now using the healthcare center. Both the heads of the household and the mothers state they use modern treatment methods just as much as traditional cures. When the illness first appears, traditional methods or household remedies are used, as sometimes is self-medication with modern medicines. Should the condition worsen, then the person affected will be taken to the healthcare center. Traditional treatment methods are never completely abandoned however, as here these will be prescribed by a qualified traditional therapist.
The survey sought to identify the diagnostic given by the healthcare worker or therapist visited. From statements collected from the heads of household questioned, the main causes were malaria (35%), lack of hygiene and food poisoning (11%). This was also the opinion of the members of the village councils and focus groups: “fenw bè bè don kono la, kono dun tè ko” (Everything goes into the stomach, yet the stomach cannot wash itself).

Food poisoning was said to stem from eating raw fruit (particularly mangoes) and food that the children buy in the street: pancake fritters, fried potatoes, etc. The drinking water cited by healthcare workers did not figure in any of the answers of the people questioned. The survey did, however, ask about the households’ water sources. The responses show that 54% of households have traditional wells at home and that 20% use public wells. Certain wells dry up very quickly, meaning that their owners then have to obtain water from the neighbors or from standpipes. It is to be noted, however, that the survey only identified 8 operational boreholes. The main source of water supply is, therefore, domestic wells, which raises questions as to their levels of hygiene as these wells are not usually particularly well-protected.

The traditional wells are not deep enough, a fact blamed on the type of ground. Furthermore, they are not protected from household garbage or, often, from pollution from the latrines. Indeed, in 24% of cases, garbage is stored inside the compound, often in fairly large heaps. Where the garbage is stored outside, this is simply piled up in a corner between two compounds. As these compounds are not always walled, the risk of polluting the well is just as high as in those compounds where the garbage is stored inside.

In addition to that of garbage, the risk of pollution from the latrines was also observed in 95% of the households surveyed. In 63% of cases, this risk came from traditional latrines being located next to the

kitchen and water storage containers (jars). As a result of the work of technical partners, it was observed that 25% of households questioned have improved traditional latrines. The traditional or improved traditional latrines were rarely equipped with handwashing facilities. Over 52% had no handwashing facilities at all and 13% had kettles at the latrine entrance. However, the water in these kettles was used more for anal cleansing than for washing hands, as was the water stored in the old tin cans found outside other toilets.

While the lack of facilities does not necessarily indicate lack of soap, there was no soap available in 73% of toilets visited. The women, who mainly use the soap, explained that they keep the soap out of the reach of the children as they don't want them playing with it. Others were afraid that, by leaving the soap in the toilet, it would get taken or be polluted by people urinating around the edges of the squat hole.

Can the water, soap and latrine situation in the villages and households explain the population's behavior with regard to their use? The following chapters provide some possible answers to this question. The subject of latrines and their uses will be examined first, followed by practices pertaining to handwashing with water and with soap.

3.3 LATRINES AND THEIR USE / NON-USE

Data collected during the survey shows that latrines are a relatively recent phenomenon in the communes and villages visited. In one village, it was reported that the first latrine was built in 1959 by a district chief because officials were coming to visit. For a long time, this latrine remained the only one in the village and became something of an object of curiosity. It was also only opened when the village received a foreign visitor.

People, especially the disabled, sick and elderly, did recognize the convenience of the facility, however. Therefore, according to the district chief, a latrine was constructed for a member of the village (Kléla) who was crippled and so unable to go into the bush, as was the local tradition. The idea slowly gained ground and people in a number of villages and compounds considered building latrines for the sick and elderly whose condition left them disabled.

The increasing number of civil servants and natives of the area who have become white collar workers should help to further the development of latrines. Teachers are demanding toilets are built in their staff accommodation and some have refused to move into houses because they had no latrines. In another village, they told of a native of the village, a white collar worker, who has built two latrines in the family compound. One of these latrines is reserved solely for his own use and is kept locked whenever he is not staying in the village.

According to several heads of the villages surveyed, it will soon become necessary to construct more latrines because, as the villages grow in size, the bushes traditionally used by villagers are disappearing. Interviews with the focus groups confirmed this, but also highlighted the work of the technical partners and the national decentralization policy as contributing to latrine construction. The new municipal councils have mostly taken responsibility for the sanitation issues encountered in the villages and, particularly, in the communes' administrative centers. The issue of latrines is, therefore, something that plays on the minds of all the heads of the family. Each of them hopes to have a latrine as, as one person said: "It is shameful for the head of a family to offer a stranger something to eat without then being able to show him where to relieve himself. Even people from the hamlets ask to use the latrines when they visit town", (*cercle* council president). However, the people surveyed reported several hurdles that need to be overcome before the need for latrines in the compound can be translated into reality.

3.3.1 LATRINE CONSTRUCTION

The hurdles and difficulties associated with the construction of latrines mentioned by those people surveyed can be classified into three types: material, financial and symbolic.

- **Material difficulties**. These are linked to several factors, namely:
  - ✓ **Physical factors.** The type of ground was mentioned in virtually all of the interviews. The presence of rock makes it difficult to dig an appropriately sized pit. Through manual digging, the maximum depth rarely exceeds 1.5m and so the pit soon becomes full. As there is no way of emptying the pit, this needs to be covered and further pit dug. This is not possible in every compound, however, as the living space is already fairly limited.
  - ✓ **Spatial factors:** In addition to the space restrictions mentioned above, some of those surveyed also mentioned the layout of infrastructure within the compounds. A compound is only sustainable if it has a well. As one person remarked, wells even determined the location of the villages. Within the compounds, wells have been constructed on top of run-off watercourses, and in many cases, these watercourses are situated in the middle of the compound on a downward slope. The kitchen, which was built subsequently, is located near the well. The 'traditional' construction plans do not include latrines and it is difficult to find uninhabited space that is suitable for their construction. This problem is compounded by the fact that the space allocated to the bath is usually situated between the street and the compound and often outside the latter. In compounds where bathrooms for adults and women have been put in place, these are spaces of around $2m^2$, so only just big enough for one person and a bucket. Furthermore, the survey established that all those compounds without latrines were unable to construct them due to lack of space. A further element of this spatial factor relates to household size and the number of people living in the compounds. On some compounds, there are over a hundred people who need to be housed. Construction of this accommodation, therefore, leaves little place on which to build latrines.
- **Human factors.** These are linked to a lack of skills and experience in latrine construction techniques. Those villagers wanting to construct latrines are forced to look elsewhere for

competent masons. The technical departments (DRS and DRACPN) have endeavored to fill this gap, but the number of specialists trained is still too low to meet the demand of the population. Peace Corps volunteers also taught young people in certain villages how to construct double pit latrines. However, they never fully mastered the technique and the system, deemed too complex, has since been abandoned.

- **Economic factors.** The cost of building a latrine was reported to vary from 25,000 and 50,000 CFA Francs for a latrine without internal fittings. This latrine structure (without internal fittings) is for a traditional latrine constructed using locally available materials: mud and pieces of wood to support the pit. With the internal fittings in place, the total cost is estimated at 100,000 CFA Francs or higher in some places. People consider these costs to be relatively high given their levels of income. The cost of pit emptying, which can be anywhere between 7,500 and 10,000 CFA Francs, also needs to be added to the cost of construction. Farmers have been, and are still, unable to bear the additional expense of these costs.
- **Symbolic or cultural factors:** There has been much popular opposition to the construction of latrines.
    - **"They are not for us"** (village councils): Originally designed for foreigners, latrines have introduced a distinction between villagers and those people who have latrines. As a result, those building latrines are identified as people wanting to give up their village identity. As one person told us: "Latrines are not for us. It is because of them that I don't want to go into town because they bother me. We aren't used to it", (a man in Maoubougou). This is a fairly widely held opinion. The people surveyed, both individually and as part of the focus groups, acknowledged that, even if latrine construction develops, not everyone wants one in their compound. For the young people taking part in the focus group, it is the older people who are most reticent and those participating in the village council interviews did not contradict this. They considered the latrines to be cumbersome and dirty. Others blamed the latrines for the infertile soil and disappearance of several species of flora. According to them, the soil is no longer directly enriched as a result of the increased use of latrines.
    - ✓ **"It's for the sick, the elderly and the disabled"** (Kléla village council): Having latrines in a compound is a sign of physical handicap or lack of vitality. In contrast, being able to go to the toilet in the bush is a mark of vitality and valor. As a result, families who build latrines are stigmatized as being sick, elderly and physically imperfect. Indeed, having a handicap refers to having a physical imperfection, which can often hide genetic faults within the family.
    - ✓ **"It's incompatible with our way of life"** (village councils): The final symbolic and cultural factor pertains to the farmers' way of life: "We are always in the fields and you can't build latrines in the fields". This statement clearly expresses the notion that latrines are not for the likes of farmers and especially not when in their fields. As with those people who live near the bush, farmers have no need of latrines. A review of latrine development shows, however, that this situation is in the process of evolving. It is necessary to establish, therefore, whether

latrines are still only being constructed for use by the disabled, the sick and the elderly. Who else is able to use latrines and why?

3.3.2 USE / NON-USE OF LATRINES:

The responses received to the questions on those people using the latrines demonstrate that these latrines are no longer solely for the use of visitors, the sick and disabled. With the exception of children under the age of six, everyone is able to use the latrines. This age restriction is in place to prevent children of this age falling into the pits. It, therefore, gives an indication as to the precarious nature of the facilities, which are constructed using low-resistance and rapidly degradable local materials. However, in theory, latrines can be used by all family members, irrespective of gender. Yet, the question remains as to whether this is, in fact, the case.

3.3.2.1 REASONS FOR NON-USE

While there may be latrines in place, it doesn't necessarily follow that these will be used. There is no social or moral obligation to use the latrines. Each adult is free to choose whether to use the latrines or not, as shown in the impersonal style of the responses.

- Personal reasons: "There are people who say that, when they squat above a pit, they are put off defecating by the heat and smell. They feel suffocated by the heat", (Kaboïla village councilor). People feel uncomfortable using the latrines because of the pollution.

- Psychological reasons: In some cases, people stated they had what can only be described as a phobia of the latrine pit, considered an abyss full of unknown horrors. This phobia led to some idiosyncratic reactions: "Sitting over a hole makes a lot of people uncomfortable", (Kléla village councilor). This was not the only unfounded reaction, however, as some people also expressed disgust and even repugnance at the sight of human excrement: "A be mogo nagashi"/ "It makes you retch, it's disgusting" (idem).

- Long wait to use the latrines: in addition to these individual, rather subjective arguments, the people questioned also gave a more objective reason, one linked to over-population in the compounds, particularly when compared to the number of latrines available. In general, there is only one latrine per compound, whereas the number of people for whom it is socially acceptable to use the latrines can be as high as 50 or more. This many people makes waiting in line interminable and unbearable for those in urgent need. These people then prefer to go to the 'open air latrines', namely to go and defecate out in the bush. Others have got into the habit of no longer looking to see if the latrine is free, but go directly out into the bush as a matter of course.

- Impossible to perform a health check. Lastly, there are presumed health reasons. Defecating into a latrine makes it impossible to establish a person's state of health, which is traditionally identified by examining the appearance of the feces and any visible parasites.

For the head of a village, all these reactions signify that the population is still bound by habit; the habit of not using the latrines for defecation. However, he also notes that use of the latrines is gradually increasing and points to several reasons for this.

3.3.2.2 REASONS FOR USING THE LATRINES

The reasons given for using the latrines were the same for all the sites visited; however, the specific aspects highlighted differed for each socio-cultural group.

- Rapid urban development: Members of the municipal and village councils considered urban development the main reason for increases in the use of the latrines. As the size of the villages increase, so the bushes will disappear and anybody with diarrhea, for example, will no longer be able to find anywhere to go.
- Involvement of political authorities: As a result of decentralization, the municipal councils have taken over responsibility for local development related environmental and sanitation issues. Certain mayors highlighted their support of local initiatives, particularly those of women and young people in community-led sanitation projects or programs. Others emphasized the fact that their social and cultural development program (PDSEC: *programme de développement social et culturel*) included a section on the construction of latrines in each compound.
- The involvement of active stakeholders in the villages: In the majority of villages, the women and young people have set up voluntary organizations, some of which have been able to attend training on sanitation issues and, notably, on the construction and management of latrines. The aim of these groups is to reverse the trend in their particular village. Their task has been made easier by the work of NGOs and the municipal councils, from whom they nevertheless claim to have received insufficient material and financial support. However, any lack of support has been offset by the commercial exploitation of the excrement, which is being transformed into compost.
- Improvements in school enrolment and literacy rates. As illustrated in a subsequent section of this report, the school enrolment rate has increased in the villages and households, which a decade ago would have contained very few or even no schoolchildren. These schoolchildren, along with their teachers, are considered agents of change, with mayors and association leaders keen to involve them in furthering their sanitation projects. The focus group members considered the practice of using latrines to be directly related to the fact that there are now more schoolchildren and people who are newly literate. The use of latrines is, therefore, considered a type of snobbery on the part of the progressive groups within village society. This snobbery is not gratuitous, however.

3.3.2.3 AWARENESS OF THE ADVANTAGES OF USING LATRINES

"Latrines are very useful, they are for everybody's good", this statement, made by a member of Kandiadougou village council and often repeated by other people, shows that the population's perception of latrines is positive and they are aware of the advantages of using them. The advantages mentioned related to health issues, hygiene, security, convenience and job creation.

- ✓ With regard to health, the survey data reveals that the population is aware of the link between open defecation and the risk of epidemics, such as cholera which devastated several villages a few years ago. The women's focus groups also highlighted the outbreaks of diarrhea in the family, which they attributed to the increase in garbage being drained into run-off water.
- ✓ From a hygiene perspective, those surveyed mainly noted the reduction in pollution, of the smell emanating from the feces of children and, sometimes, the elderly. Children are encouraged to defecate into potties or their feces is collected and disposed of into the pit. As such, it is claimed that food and containers are now better protected from disease-carrying microorganisms.
- ✓ The security aspects raised related to the risk of being exposed to snake and insect bites, a constant danger when practicing open defecation. Using the latrines nullifies this risk and provides increased peace of mind: "Once in the toilet, you are no longer afraid of being interrupted by a passer-by and you can take your time", (a man in Kaboïla). Security was also mentioned in relation to feces being used for occult purposes. The populations in the villages studied believe sorcerers and other wrongdoers are able to bewitch a person through their feces. Using the latrines, therefore, makes it possible to escape this threat.
- ✓ They are convenient: the use of latrines was mostly considered a convenience, particularly in the case of diarrhea: "Someone suddenly overcome with diarrhea can't walk through the village to the bush, as he may not make it in time. What's more, with latrines at home, he can wait until it passes or easily revisit the toilet if the diarrhea returns. This is impossible if you have to go to the toilet in the bush", (young people in Dandéresso).
- ✓ They can help create employment: Lastly, it would not be so easy to make compost if there were no latrines. The young people and women taught these techniques are now able to earn a reasonable amount with this activity, given this is an agricultural region with a constant need for fertilizer. It is generally these groups who see job opportunities coming out of the use of latrines.

While the advantages of using the latrines are fairly well-recognized, latrine use is still not yet a habit, and very few people actually do use the latrines for their needs. The survey endeavored to establish ways and means of expanding latrine use and instilling this as a habit. The following statement, made during a men's focus group in Farakala, provides some possible answers: "We are open to all types of hygiene and sanitation action. We don't say no to anything. However, to succeed, you have to convince all layers of the population".

- ➢ Increase information and awareness-raising activities. From this statement, it would appear that not everyone in the villages was present when the practice was introduced. It would, therefore, be useful to conduct further information and awareness-raising actions in places to ensure all social groups are reached, particularly the opinion leaders.
- ➢ Provide support to households to construct latrine: In other villages, in addition to awareness-raising requirements, they highlighted the fact that many households struggled to build suitable latrines in their compounds. People cannot use latrines if there are none

available. It would, therefore, be useful to support households to build latrines at home. The presence of latrines does not, however, resolve health and hygiene issues and the proper use of latrines also involves a further behavior, namely that of handwashing with soap when leaving the toilet. As such, what were the handwashing practices of those people in the communes and villages studied?

3.4 HANDWASHING WITH WATER AND SOAP

Those surveyed found the topic of handwashing both embarrassing and funny. Difficult to bring into conversation, particularly with the village councils, the subject would initially raise a smile, but no immediate response, even when introduced late into discussions. Indeed the initial questions dealt with individual and family hygiene habits. They aimed to ascertain washing practices and times, the presence or availability of water and soap, as well as the circumstances, reasons and purposes for which soap is used. In order to avoid offending anybody's sensibilities, the subject of handwashing with soap was, therefore, introduced as part of a more general discussion on the topic.

The characteristics of both the villages and households described above enabled the general water situation to be assessed: its presence, cost and uses. From the interviews, it can be seen that, while water is not necessarily scarce, many villages and households find it difficult to access. Water is not abundant and so cannot be used carelessly. Potable water, which sometimes has to be fetched from some distance away from the compound and can cost between 10 and 100 CFA Francs, depending on the quantity, is reserved solely for drinking and, sometimes, cooking. Water from the traditional wells located inside the compound, or at the neighbor's, is used for laundry, bathing and washing in general. People usually wash upon waking, during prayer times or after completing dirty jobs. It was during this part of the discussion that handwashing was often mentioned and so the interviewer then sought to find out more.

3.4.1 WHEN ARE HANDS TO BE WASHED?

The answers to this question show that handwashing is generally conducted only prior to eating. Some people also specified this to mean prior to eating "main meals". This distinction is important, particularly when considered in conjunction with some of the women's statements, who said that outside of these times, it never occurred to them to wash their hands, even before eating anything they have bought at the market or in the street: "I sell soap at the market", one woman from a working-class neighborhood in Sikasso told us, "and I often eat fried potato just after having given soap to a customer".
The normal family mealtime appears to be the only time when hands are usually washed, and this with water only. This observation was somewhat tempered by one village council member, who maintained that this is a recent practice and that previously "everyone just rubbed their hands on their thighs before eating and nobody ever died". The reason given for this was that, in the past, water was not as freely available as it is today. Handwashing was, therefore, a luxury that farmers and children could neither afford nor seriously consider. Farmers because, being in the fields all day, they never felt the need and children because they got naturally dirty playing outside in the street.

Those people surveyed did, however, recognize that the situation has evolved. The farmers now work with fertilizers and pesticides, toxic products that require them to wash their hands with soap. The survey confirms this trend, as illustrated in the table below:

Table N°6: Occasions when hands are washed

Moments	**No. of responses**	**Percent**
Do not wash hands	23	23.0
Before eating	12	12.0
After eating	1	1.0
After have defecated	4	4.0
After handling pesticides	60	60.0
Total	100	100.0

The table shows that a large number of heads of household (23%) claim never to wash their hands. Nearly 79% of those who stated they do wash their hands do so after having been in contact with pesticides. Farmers nowadays, even if they do not wash their hands before eating, are forced to wash them after handling toxic products in order to prevent pesticide poisoning. On a few rare occasions during the interviews, some of those surveyed, notably municipal council members and women, mentioned cholera epidemics and how, during these periods, everybody was scared into washing their hands prior to eating and upon leaving the toilets. These same people also acknowledged, however, that this practice ceased once the epidemic had passed and old habits were soon resumed.

As indicated both in the table above and in interviews, the third most common time for people to wash their hands is upon leaving the toilet. However, as the figure in the table shows, the number of people actually practicing this remains very low. The women's focus groups also highlighted occasions not included in the table above. These pertain to handwashing after assisting children with anal cleansing and after putting on make-up. Handwashing after putting on cosmetics could be compared to handwashing after handling toxic products. Nearly all women and young girls, therefore, wash their hands after handling make-up. However, it was also acknowledged that very few women wash their hands after helping their children with anal cleansing.

3.4.2 HANDWASHING WITH SOAP

"We use only water to wash our hands. It may not be the case now, but farmers have always been able to eat everything and still live. To be honest, only civil servants use soap when they wash their hands. When we wash our hands with soap, it is because we have been using toxic products", (a man from Kléla).

This statement from a focus group in Kléla perfectly sums up the situation as regards handwashing with soap. Other statements insisted on the fact that, even for washing the body, soap was only used once or twice a week. From the data collected, it can be seen that women are the main users of soap and that the majority of women, if not only person in the household to buy the soap, contribute to its purchase. Soap is used for washing the dishes, the laundry, and for personal hygiene during the daily wash. Soap can be used

by everyone, with the exception of young children who, according to the women, 'ruin' the soap rather than use it properly. Discussions with those surveyed show that handwashing with soap is not a common practice. It only takes place after handling toxic products: fertilizer and pesticides for farmers and cosmetic products for women. The aim of the study at this point was not to establish why handwashing is practiced after handling toxic products; any reasons given by those people surveyed to explain this practice are, therefore, not listed here. It is simply to be noted that in rural areas, this is the occasion on which people most commonly wash their hands. The issue of handwashing at so-called critical times, therefore, still needs to be examined.

The following paragraphs review the different practices, and reasons for these practices, associated with each of these critical moments, namely: before eating, upon leaving the toilet, after assisting the children with anal cleansing and before preparing meals.

3.4.3 NOT HANDWASHING WITH SOAP BEFORE EATING

As mentioned above, handwashing with water is a practice that is generally observed at all levels of society and in all villages. The same is not true, however, of handwashing with soap, a practice which creates much reticence and even suspicion. The reasons for this are several and relate not only to cultural and symbolic beliefs but also, and with varying degrees of objectivity, to material aspects.

- **Symbolic beliefs**. From the interviews, two main reasons emerged: lack of habit and the desire to strengthen family unity and cohesion.
    - ✓ **Lack of habit:** "The chick is not used to suckling its mother", (a man in Kaboïla). This idea is related to what others refer to as the dictates of habit. Handwashing with soap has never been included in these dictates, which have been in place for centuries: "we have been eating without washing our hands with soap for years and we are still here. Dirt doesn't kill the farmer. On the contrary, dust on a grower's hands acts as a restorative", so claimed one person interviewed. This habit, or lack of habit, has been passed down through the generations. It is further compounded by the farmer's lifestyle as he is mostly out in the fields and his day-to-day and ever urgent work leaves him no time for anything else. As one person interviewed in Madoubougou said: "Suruku sen ka teli tabadaka min ma" (the hyena doesn't have time to use a pipe). The use of soap is considered an innovation, an imported practice, or one that imitates that of the 'toubabs' (Europeans), with one councilor asking: "Is a farmer who goes out into the field with soap really a farmer?"
    - ✓ **Compromises family unity and cohesion:** Handwashing before family meals is a tradition that involves using the same water in the same container. The rules of table-companionship require dinner guests to take turns washing their hands, in descending order from the eldest to the youngest, as per the family hierarchy. Respect of the hierarchy is both taught and adhered to and observation of this traditional education principle helps maintain family stability. Soap cannot be used for this. Even its possible use upsets the oldest family members who see it as marking the end of an order based on gerontocracy and seniority; using soap will require a change of water, which is not permitted. Water, a

liquid, combined with a container, a solid object, not only reinforces unity but also, and especially, serves to combat pride or any other tendencies to independence or domination.

In addition to these arguments, other more or less fanciful considerations were also mentioned on occasion, more akin to fantastical visions than any true belief. Even if these opinions are quite widely held, they are without foundation and were only mentioned by very few people. Thus, it was often said that handwashing with soap impoverishes those who do it regularly, that soap is good for women, but can wash away men's protection. Whilst these claims often retain their powers of suggestion, if a basis for these allegories is to be found, it is perhaps necessary to examine families' material living conditions. The myth could simply be a way of disguising the fact that households find this activity difficult, if not impossible, to carry out.

- **Material living conditions:** These relate to the size of the family and the availability of water and soap. As is the case with latrines, the size of the family or household does not facilitate the use of soap and water, both of which have an associated cost. Even where it was acknowledged that there was adequate water and soap at home, people were keen to stress the conditions under which they were able to use them. With one sole container, the quantity of water used for handwashing was always the same: ½ liter of water at most. It was also pointed out that it was not good to use large quantities of water for handwashing at daily mealtimes. In contrast, however, the women stated that not only is soap used before official meals, but it is also increasingly being used during traditional banquets. No expense is spared on these occasions and soap is offered systematically.

It could, therefore, be concluded that not using soap for handwashing before eating forms part of a family's economic strategy, one that consists of ensuring that anything that has to be paid for is used in a careful and disciplined manner.

3.4.4 NOT HANDWASHING UPON LEAVING THE TOILET

This so-called family economic strategy also largely explains why handwashing is still not yet widely practiced. Factors that determine this strategy include: the habit of not handwashing, financial and material problems accessing water and soap, family or household size, etc. Nevertheless, there are also other specific factors that particularly impact on the practice of handwashing upon leaving the toilet:

- ✓ Lack of latrines in the compounds and open defecation. In this situation, it is rare that even water is used, let alone water and soap: "the farmer cannot walk around with soap" (a village councilor in Boro).
- ✓ Traditional anal cleansing practices. As when having to look at waste, certain people expressed repugnance at the idea of using their hand to wipe themselves. In the bushes, sticks or stones are used for this. As their fingers have not touched anything, there is no need to wash them. If their hands do inadvertently get dirty, then people wipe them in the sand and continue on their way.

3.4.5 HANDWASHING AFTER ASSISTING CHILDREN WITH ANAL CLEANSING

Questioning on this practice gave rise to contradictory statements. The women (as this issue relates only to them) do not all use the same methods and the interviews brought out many different scruples. Some women, few in number but the most vocal, stated they observed this practice. They maintained that they systematically washed their hands after having cleaned their children, except in cases where the child was defecating frequently. The majority of women, however, said the opposite and that it was necessary for different circumstances to be taken into consideration. Hands can be washed with soap if the child has already started to eat solids; however, even here soap is not systematically used. In contrast, with infants, the women didn't think it necessary to wash their hands at all, let alone with soap. The reason given for this being: "Fèn min tè dumuni kè, nogo t'a bo la kassa ta la" ([the child] doesn't eat, its feces doesn't smell and isn't dirty), (a woman in Kaboïla).

3.4.6 AWARENESS OF THE DISADVANTAGES OF NOT HANDWASHING WITH SOAP

"We know that by washing our hands at critical times we can prevent disease. We know the advantages of this practice; it is just that it hasn't entered our habits" (a woman in Kléla). In all the villages, the individuals or groups interviewed acknowledged that they had received specific information on the disadvantages of their traditional handwashing practices. The media, notably national television and radio, reminds them each year as the rainy season approaches, as well as during cholera epidemics. NGO coordinators were also mentioned as providing information on this and the messages conveyed were recited as if they had been learned by rote. Indeed, those interviewed were able to talk at length on the importance of soap and its benefits, as explained by a group of women in Kaboïla: "Ni safunè tè an tè se ka gèrè niongon na" (without soap, we can't get close to each other). Soap was considered not only as a detergent, but also as a deodorant that makes relationships, conversations and other forms of companionship more pleasant. It makes individuals nicer to be around as there are no unpleasant smells. The most frequently cited example was that of eating fish, as the only way to get rid of the smell is by using soap.

In Kandiadougou, as in other villages, it was the protective properties of soap that were highlighted: "Nothing is better than cleanliness. The world today is full of disease and men are becoming weaker. Keeping yourself and your living spaces clean is therefore very important. They say that everybody should wash their hands in certain situations to avoid catching unknown diseases", (commune councils, men and women's focus groups). The use of soap prevents the absorption of dirt which, once in the digested, can cause terrible stomach ache. On occasion, it was also stated that, in the absence of soap, after having defecated it was recommended to use ash, which is readily available. The population recognizes that all this information they have been given is both true and relevant. However, translating this information into practice remains a challenge. Both the disadvantages of traditional methods and the advantages of handwashing with soap are well-known. Yet, despite this people still aren't doing it. How can this situation be changed? How can this practice be introduced into village customs?

3.4.7 INTRODUCING THE PRACTICE INTO BEHAVIORS

Handwashing with soap is a recommended practice, but also one that this difficult to integrate into people's habits. This was the opinion, even the conviction, of virtually all of the people surveyed. It is considered to be an advisable practice because it echoes a religious recommendation. As one religious leader explained, religion requires us to be and smell clean, even if this means using perfume and deodorants. Even those more reticent elders acknowledged that the use of soap at those moments indicated in the study was not incompatible with traditional cultural practices. However, they also recognized the difficulty of attempting to change a habit that has been in place for hundreds of years in the space of several months, with many of them feeling that it was not up to them to support this change. In their view, supporting activities to promote handwashing was the role of women and young people.

Not all women and young people necessarily shared this opinion, however. While they were aware of their responsibilities and the value of their input, they stressed that the elders, particularly the village heads and their councils, should also be involved: "their involvement is crucial", said one woman in Sanoubougou, who explained that the elders have more respect and influence than the new mayors. The statements of each of these parties show that intense and inclusive awareness-raising activities are required. It is important that no individual or group is overlooked as, as one young man from the same neighborhood stated: "In the Senufo area, we watch and observe each other. When one village starts to do it, all the others will follow, even if they don't understand the reasons behind it. That's the way it is here", (young people's focus group in Doumanaba). Discussions also touched on who would be willing to carry out awareness-raising activities. Women and young people stated they would be happy to conduct such activities, but only after having received prior training. They didn't consider themselves to have the skills required to explain things as well as teachers and civil servants, as the women interviewed in Sanoubougou said: "They are the agents of change. They are the ones people observe. We often take against them because we aren't able to be like them. We see how healthy and always presentable they are and want to be the same". In relation to teachers, the situation in schools was also studied and the results are presented below.

3.5 CHILDREN AND THEIR SCHOOLS

The main aim of the study was to gain an understanding of the reasons why children use the latrines or not and why they wash or do not wash their hands with soap before eating and upon leaving the toilet. The study was based on two strong assumptions, namely, firstly that there is no relationship between hygiene education lessons taught at school and village and family practices and, secondly, that there is the possibility for children to practice what they are taught within the school yard. In order to verify these assumptions, a review to take stock of the situation in the villages, family compounds and schools was carried out. The purpose was to collect information relevant to the aims of the study and thereby determine whether village, home or school practices influence children's behavior.

3.5.1 SCHOOL SITUATIONS AND PRACTICES

In order to gain an understanding of children's practices at school, the study first assessed the sanitary situation in each school and initiated a hygiene revision lesson in certain classes.

- **The sanitary situation of schools**: The table below provides an outline of the situation in the 9 schools visited. This table contains a summary of the information observed during the study.

Inside a latrine in Dandéresso. It is clean but liable to get very hot inside, which may discourage users, particularly during the hot season.

Table N°6: Overview of the sanitary situation in the schools visited

Review	Situation	
	+	-
There is water in school	4	5
There are latrines in school	9	0
Approximate distance from classrooms	50m	5m
Separate latrines for teachers/ girls/ boys	5	4
1 to 3 pits/group of latrines	8	1
Clean latrines	6	3
Dirty latrines	2	7
Very dirty latrines	1	8
Overflowing pits	0	9
Handwashing facilities available near the exit to the toilets	4	5
There is soap available	4	5
Did the children observed during the study use the toilets?	1	8
Did the children observed during the study wash their hands with soap?	1	8

Source: Our survey

Key: Yes = +: No = - .

As a result of our observations, it can be seen that five out of the nine schools visited have no clean water source. Water was stored in jars or drinking flasks or in the kettles used in the toilets. These kettles were placed either outside each classroom or outside the principle's office. It was therefore necessary for the children and teachers to pick them up from here each time they wanted to use them. All schools had latrines, with the exception of one school where new latrines were being built. These latrines were located relatively near to the classrooms, with the furthest being at most 50m away. At five of the schools visited, there were separate latrines for girls and boys and in one instance this was also the case for teachers and

children, even though this was not in the initial plans. Indeed, the teachers had reserved one latrine for their own use, with the remaining two being for the use of the children. The majority of the toilet blocks had at least three pits, although these were not always separated by a wall. In general, the state of cleanliness of the latrines was satisfactory, except in one case where urine was not being properly evacuated and there were visible signs of defecation around the squat hole.

The study also observed one instance where there were bundles of sticks visible in the empty pits. When asked, the school principle explained that these were used by the children to wipe themselves clean.
There were no appropriate handwashing facilities present in any of the schools, except one where the principle admitted having brought it in from home with the arrival of the holidays. However, for the purposes of the study, kettles and old tin cans placed outside the latrines or principle's office were also considered as handwashing facilities. The inclusion of these basic facilities explains why the results show there were handwashing facilities available near the exit of 5 out of 9 latrines. With regard to the availability of soap, four out of the nine schools visited had no soap available near the facilities observed. In some cases, soap was only present in the principle's office, although all the principles questioned affirmed that this was available for use by the children.

It was only possible to confirm one of these principles' statements, however, as the children happened to be in school for the end of year party. Some of the children attending the party used the toilets and also washed their hands with soap, both upon leaving the toilets and before eating. Why did they behave in this way and do they behave in the same way outside school and at home?

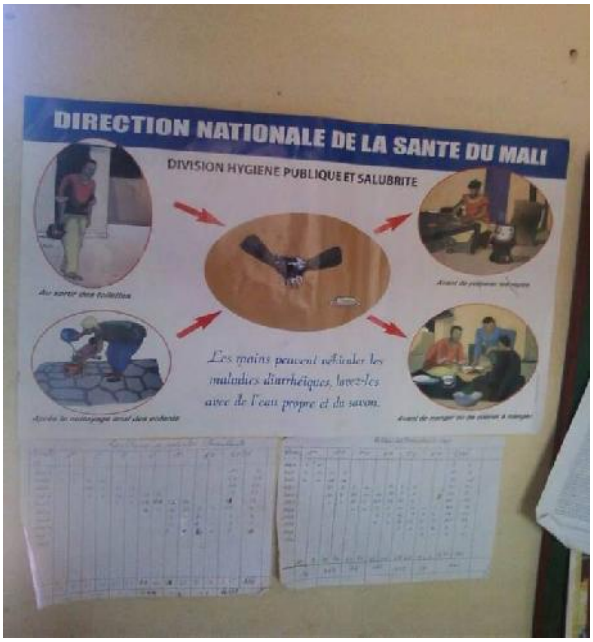
3.5.2 THE HYGIENE EDUCATION LESSON

A classroom simulation session

The study took place on the last day of the school semester, just prior to the school holidays. In certain villages, the classes had already broken up for the end of the year. In others, often with the support of Save the Children coordinators, children had been requested to stay in school. These were primary school children from 6th grade, who had already been taught the lesson on handwashing with soap and the use of latrines. In some of these classes, a poster explaining the handwashing process, produced by the National Directorate of Health (DNS: *Direction Nationale de la Santé*), was displayed on the walls (please see the poster below). These posters facilitated revision of the lesson as they were referred to by virtually all of the children present.

In order to reduce any bias introduced by this poster, the subject matter was expanded to include water and its uses, before moving onto related illnesses and the ways in which these can be both spread and prevented. As this was a convergent pedagogy (CP) school, the lesson was taught entirely in the national language.

During this revision lesson, the children successfully distinguished between potable and non-potable water. They correctly identified that potable water is for drinking and cooking. They were also aware that even drinking water can become polluted and that bleach must be used to purify it. When asked about water-related diseases, they were able to name malaria and diarrhea and often stated that these two illnesses have the same cause, namely, dirt and garbage carried along in stormwater.

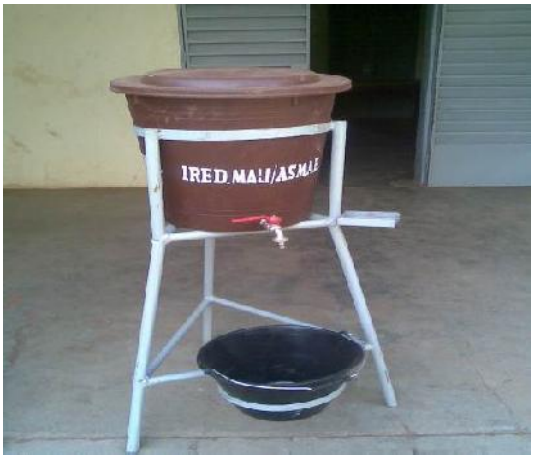


Handwashing with soap was identified as a way of preventing these diseases. In those classrooms where the DNS poster was displayed, this was used to explain how to prevent diarrhea. Even in those schools with no poster, the same information had been learned. The children know, therefore, that to prevent diarrhea and other infectious diseases, it is important to follow the practices taught in hygiene lessons, namely: defecating in the latrines and handwashing with soap upon leaving the toilets and before eating. Although many children do use the school latrines, barriers to this practice still remain, such as:

- ✓ The lack of latrines: The population of the schools visited varied from between 200 and 400 children. According to DRACPN staff, the national standard is one latrine to a maximum of 50 people. Therefore, the minimum number of latrines in low population schools should be at least four toilet blocks.
- ✓ The position of the pits in the latrines. In certain cases, there are two pits next to each other within the same latrine cubicle, meaning that children are often embarrassed at finding themselves going to the toilet side by side.
- ✓ Linked to this lack of privacy, the teachers highlighted that there were no latches on some of the toilet doors. “When the toilet door doesn’t close, the only ones using the latrine are boys, who stop and urinate everywhere”.
- ✓ Personal reasons: these refer back to the psychological barriers already mentioned by some of the adults. According to the teachers, some children are afraid of the squat hole and so defecate around the sides and, sometimes, even outside the block itself. However, because of fear of detection, threats and punishment, they often prefer not to go to the toilet at all.
- ✓ The lack of separate toilet blocks for girls and boys also discourages girls from using the latrines at school. However, as one teacher stated, girls also use latrines located in the school’s surrounding area. Therefore, those who do not wish to use the latrines at school visit the neighboring compounds when they need to defecate. But what do they do afterwards? Are they able to apply these lessons outside school? This appeared a highly sensitive issue as the children all took some time to respond.

In principle, there is nothing preventing children from washing their hands with soap in those schools where water and soap are available. The teachers and children's committees even stated they insisted on it. Nevertheless, handwashing with soap is not practiced within the school environment. The teachers questioned could give no specific reason for this and none of the children were willing to explain their behavior. From observation conducted during the study, however, it is possible to identify three main reasons why the children do not practice handwashing with soap:

- ✓ The presence of small sticks in the empty pits infers that, by using these, the children believe there is no longer a need for them to wash their hands as they haven't made them dirty.
- ✓ The scruples surrounding the act of defecation. One school principle stated that the children hide the sticks in their pants and trousers. This way, they can enter and exit the toilet without anyone knowing whether they have defecated or not. However, handwashing, even just with water, would indicate to others that the child had either defecated or accidently touched the feces with his hands, both of which would lead to taunts from his friends.
- ✓ The third and probably most objective reason is that children simply aren't in the habit of handwashing at home or the family doesn't encourage it. The social and family environment has not taught them to be disciplined about washing their hands. Indeed, this was acknowledged by both teachers and children during the hygiene revision lesson. The children stated that, upon arriving home, they had told their parents about these recommendations, but the latter had not shown any particular interest. Others, remembering the experience of their elder siblings, admitted that they were afraid to speak for fear of being labeled: "N'i ko i b'i tèkè ko safunè la, u b'a fo k'i b'i yèrè fussaya u m'a; K'i ye tubabu ye, k'i bè niugu mokow la" (if you wash your hands with soap, you are described as integrated, superior or disdainful). The women said something very similar: "I ka tubabu jalan ta ka bon n'ka" (go to hell with your European manners), (Sanoubougou).



A handwashing facility designed by IRED-Mali- Sikasso. Although practical, this is too high to be easily filled by the children. The head of the tap is also not strong enough to support mass use.

Handwashing with soap is not a local custom and so wanting to practice this means denying one's origins, wanting to break away from one's clan and cause its destruction: "Mogow ka kan ka niogon noko dun" (people should eat each other's dirt to maintain good relationships), (Madoubougou**).** Children are therefore reminded that school must not be allowed to change them; that the family unit is sacred and that handwashing together, using the same container, must be continued to maintain cohesion. What the school

teaches, the family discourages, with the situation in public places seeming to indicate that these families have the full support of society as a whole.

3.5.3 SOCIETY VERSUS THE SCHOOL

By comparing the use of latrines by children in general with the review of the situation in the towns/villages and at home, it becomes fairly clear as to the practice taught by society. In villages, social or public places are usually religious buildings and markets. The majority of mosques visited had latrines, but none of these latrines had handwashing facilities with soap. Water was stored in large earthenware containers, surrounded by kettles or old tin cans, and this water was used both for personal hygiene and for worshippers' ablutions. The people observed naturally washed their hands as part of their ablutions, but it was clear from the way this was done that the aim was not to wash their hands clean of any dirt. The total lack of soap would appear to confirm this.

A handwashing facility at Kignan School A: this is light but not particularly suitable for a large number of users.

In contrast to the religious sites, there were no latrines in most of the markets visited. Those people asked about this pointed to latrines in nearby houses where stallkeepers and other visitors could go if needed. However, none of these latrines had either handwashing facilities or soap.

The handwashing practices seen in public places are not, therefore, ideal and this situation is mirrored by that seen within the family itself. As mentioned above, the highly populated compounds and precedence of age make it difficult for children to gain sufficient access to the latrines.

A handwashing facility in Niéna: sturdy and difficult for the children to damage or for someone to remove.

3.6 SPECIFIC CASE OF GIRLS:

Out of all the children, young girls constitute a specific case. The study aimed to gain an understanding of their attitude to the toilets and to soap, particularly during menstruation. This is a sensitive subject and one that is difficult to broach, especially in an area renowned for its conservative attitudes. To assist with this, there was a woman present during a commune council session and there was also a female member of the research team involved in the study. Questions were never put directly to the young girls themselves; managing menstruation was instead dealt with during the women's focus groups. The young girls were simply asked questions on the use of latrines and handwashing with soap as part of the general interviews with the children, as described above.

The women's focus group discussions revealed that practices relating to managing menstruation have evolved over time. Many of them said that, when they were young, they would speak about it to their aunts

or elder sisters. Nowadays, however, the girls talk either to each other at school or only to their elder sisters and often try to prevent their mothers from finding out. The latter always do become aware their daughters have started menstruating, however, and pass on the advice they once received themselves from their own mother or aunts. This advice covers the following aspects:

- **It is an important moment in a woman's life**: Menstruation is part of becoming a woman; it signals that the girl has reached puberty and is now able to reproduce. Certain women highlighted the secrecy inherent in menstruation. The young girl is advised to be more discreet. She is told to ensure men do not see her blood or the scraps of cloth she uses. Men in this region automatically refuse to eat food prepared by a girl who they know to be menstruating. Therefore, the scraps of cloth must be closely guarded, regularly washed and kept out of sight.
- **Blood must be hidden**: The girls are required to use the latrine pits to dispose of the blood. They are particularly told to ensure there is no blood left visible on the edges of the squat slab. If this is the case, the girl has to wash it off quickly, making sure that no stain remains. The mother has to reassure her daughter this blood flow is completely normal so the girl doesn't panic and do something that could prove detrimental to her health and future as a woman. The mother also explains the menstrual cycle, not only to ensure the girl does not get caught out at school, but also and especially to prevent any unwanted pregnancies.
- **A rigorous daily personal hygiene routine**: The mother also advises her daughter to wash her hands at least twice a day when menstruating and she is specifically told not to use a dirty cloth. However, as one woman said: "these days there is cotton in all the village and the girls don't use scraps of cloth any more". Nonetheless, even with cotton, the girl is told not to touch the blood with her hands and that, should this occur, she has to wash her hands with soap to ensure no visible traces remain.