



15th WEDC Conference  
Water, Engineering  
and Development in Africa  
Kano, Nigeria: 1989

## A case study (Upper Region) Ghana.

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### LIVING HABITS PERTAINING TO HEALTH AND WATER, HEALTH AND COMMUNITY

#### INTRODUCTION

There has been much discussion about the relationship of clean water to health in developing countries. It has been generally accepted that the provision of clean water will directly improve the health of people using the water.

In these countries, water-borne or water-related diseases are among the three major causes of sickness and death. The strongly held opinion of public health experts is that the provision of safe water is of prime importance to public health. The World Health Organization (WHO), in particular, considers that the provision of safe and convenient water supply is the single most important activity that could be undertaken to improve the health of people living in rural areas.

There has been the unexpected conclusion that cholera and diarrhoeal incidence rates amongst persons using water from tube-wells were no less than amongst those using traditional unimproved sources - "Levine et al 1976".

In the Upper Region, there are diseases present which are affected by water and its uses. These include:- Cholera, Typhoid, Schistosomiasis (Bilharzias), Guineaworm (Dracunculiasis), Hookworm (Ankylostomiasis), Ascariasis (Roundworm), Dysentery, Diarrhoea and Malaria.

Each of them except malaria is spread by ingestion of or contact with water, food or soil by infected people or their urine and/or faeces, or by flies which have been in contact with the faeces of infected people.

#### WATER USAGE

There are four concerns with water usage - the amount used, method of collection and storage, purpose it is put and appreciation of quality.

#### USAGE RATES

The determination of the per capita usage

rate of water is made difficult by a number of unknowns.

First of all, the precise population of an area is always not available. The last census was taken 1984 and population are listed by villages. However, there is no indication of village boundaries and correlation of villages listed with areas served by boreholes is not always possible.

The amount of water consumed are not always available. As a part of the Hand Pump Test Programme visual counts are being made of the amount of water pumped using meters for accuracy. However, there is no estimate of amount of water taken from traditional sources - rivers, dams, hand-dug wells, etc. The amount of water pumped from the borehole has been shown to increase in the dry season and decrease in the wet season. This may probably be similar but with opposite relationship with water collected from the traditional sources, Ghana Water and Sewerage Corporation (GWSC) uses five (5) gallons of water per capita per day as a design figure of rural areas. Carrying the water is a hard work so that whether the source is a borehole nearby or a traditional source, some distance away, the amount gathered is the minimum required to do the job.

#### COLLECTION AND STORAGE

Collection of water is a task assigned to women and children. When a woman (or a child) comes to the borehole (or traditional source) she brings with her a container sometimes dirty to carry the water back home, i.e. white enamel basins, pail buckets and earthenware pots and small pails and pots. Before filling the container, they have been taught to scourge using sand owing to lack of soap which is too expensive to buy. Pieces of plastic, calabashes or leaves are used to prevent water from pouring to waste during carrying. The water is poured in a large earthenware container on return home. Normally there are no covers to this pots and WUP staff through picture presentation,

demonstrated how to cover water pots as depicts by koom booklet written by me.

#### USES OF WATER

Water is used for the normal household oriented jobs and for special purposes such as building walls, watering animals, etc. Water is used in the compound for drinking, cooking, washing and bathing and laundry. They have been taught to use water to wash their vegetables before eating, wash hands after toilet and before eating. Water is used in brewing pito local beer. Storage pots may become dirtier in the dry season owing to scarcity of water from dry river beds. Cows, goats, sheep drink water from watering holes. Chickens, guinea fowls, ducks drink from pots in the compound.

#### APPRECIATION OF WATER QUALITY

Although there are exceptions, generally there is little appreciation of water quality or connection of diseases to dirty looking or bad tasting water, water is water regardless its colour or contents. Exceptions are that high iron content in water turns plain black when boiled. Normally people go to the nearest source for their water effortlessly rather than travel far to the boreholes. Hunters going into bush drink whatever water is available. The old hunters claim that water squeezed out of mud is better and has nutritive value. When boreholes were first introduced the people did not like the water, it did not taste "sweet" and it did not "scent well". The lack of colour was not liked either. In the markets of some rural villages, the women who sell water from boreholes had to mix clay with it to blur the colour, and it sells like hot cake. Through time and education, the borehole have come to be more accepted by the people. The convenience it presents, in decreasing the distances required to carry water, and in not going dry in the dry season are difficult to overlook. The younger people, the more educated seem to appreciate the value of clean water. In some rural areas, there are some old men who still do not approve of the borehole. It is an unnatural way to obtain water, and water provided by white men is not acceptable. They still insist their women should go to the traditional source. This attitude is less now.

#### SANITATION

For this discussion, sanitation refers to conditions or arrangements that affect health. There are areas of concern - human waste and animal waste.

##### a. Human waste

Faeces and urine are disposed of in separate ways. Faeces is considered unclean, although it does not seem to be connected with disease in the minds of the people. People leave and pass their stool indiscriminately. The villagers have been encouraged at worst to bury faeces by digging in both wet and dry seasons. Urinating is done outside the compound by night. The project staff backed by whites/expatriates constructed some latrines but their acceptance is low.

##### b. Animal waste

Animals are often herded into the compound at night, due to cattle theft. The animals occupy the corral or first internal courtyard of the compound where they defaecate and urinate. The manure may be picked up and stored. People either walk through the waste or in some cases clear a small path through it.

A Canadian University Service Overseas (CUSO) nurse tells a story that one day she went to a compound to carry a patient to clinic and commented on the manure on the path. The landlord of the house seemed shocked, she wanted to remove the faeces from her shoes. Just as cattle and animals represent wealth, so must their faeces which comes from them. "To leave a house with manure on your feet or shoes is to proclaim you have visited a rich man."

#### LIFESTYLE

The Upper Region enjoys patriarchal heritage. The male of the house wields domestic authority, supervises the economic activities of the household. It is the women's responsibility to care for the house and children but they belong to the man when marriage breaks up. Both men and women have specific tasks to do but the man has to approve of the woman's functions. A woman being refused permission to take her sick child to hospital is not uncommon example of the authority.

The man in the rainy season is a full time farmer; ploughing, cultivating, weeding and harvesting are his duties, he may be assisted by women and or children in sowing and harvesting. In the dry season, he repairs the compound or expand it, dry season gardening is done, hunting is done, funerals are performed also in the dry season.

The woman takes care of the house and the kids. She rises early in the morning and clean and sweep out the compound, she collects firewood for sale and domestic use. She does laundry for the family, bath children and work on handicrafts, prepares meal for the day. In the dry season she will thresh grain, millet, rice, etc. If there are several wives, the duties rotate with the right to sleep with husband.

#### CHILDREN

Until they are 5 of school going age they live with mothers, less than 50% go to school. More boys go to school than girls. The resistance towards education is partly historical and partly cultural. Former Gold Coast now Ghana does not include Upper Region. They were Northern Territories British Protectorate. There were no schools, they travel to the south to attend school.

A woman's job is cooking and caring for children. To educate a girl and prepare her for another job will leave her barren and will not have good life or death. There is also the fear that once educated, the children will not be content to remain in their village (as they often are not) and help care for aging parents. The boys are delegated the role of shepherd. Cattle, goats and sheep are taken from and returned to the compound daily and trained to follow footsteps of their fathers.

#### HEALTH PROBLEM

There are many problems to be overcome and practices to be modified if there is to be a general improvement in the health of the people.

A number of diseases are spread by drinking or contact with water or soil contaminated by infected people or their urine or faeces, or by eating food grown in faeces from infected people. The day to day lifestyle of the people encompasses all their conditions.

Habits leading to the continuing incidence of the relevant diseases include:

a. Lack of connection of disease with dirty water; or with faeces, urine or flies.

#### b. Poor sanitation practices

Indiscriminate defaecation and urination outside the compound and bathroom urine.

- Creation of sockways for waste/gray water disposal which become breeding places for mosquitoes and flies.

- Inadequate disposal of animal wastes around compound.

#### c. Poor hygiene practices

- Lack of use of soap.

- Use of dirty water for bathing, washing dishes, etc.

- Refusal to wash hands after toilet, before eating, before cleaning utensils or preparation of meals.

- The use of dirt as a scourging medium.

- Congregation at water source to do laundry, etc.

#### APPROACH TO PEOPLE

To change habits, an education programme is required. No one group of people is worse or better off than any other group. All people used to be reached to improve sanitation and hygiene. Because women and children are more involved than men in the collection of water and preparation of food, they may require different or additional information. Women and children may not be allowed to attend sessions or to apply what they learn without prior approval from the men owing to patriarchal societal role.

The most possible approach to attain the sanction is to approach villages through the chiefs and headmen. Before approval is granted, a lot of time and effort will be required for discussion.

The promotion of 2-way discussion, giving the villagers the opportunity to participate in developing their own programme. The educational propaganda has involved as many people from as many different disciplines. The co-operation of existing agencies, local personnel involvement in the education programme will be easily acceptable than an outsider. The Ministry of Health dressing stations with the dresser from the village who has been taken away for his training explains the method vividly.

The project staff trains one village education worker who in turn trains people in 20 nearby villages. The presentation of lectures supplemented by visual aids - posters, drawings, models, slides, projectors or demonstrations are believed to be the most successful means of passing on information.

Agencies involved are both Governmental and Non-Governmental (NGO). Two major ministries involved are Education and Health. The Ministry of Education expands or create courses in health for school children after which adults will learn from the children examples. The Ministry of Health has primary responsibility for the health of the people, it operates 6 hospitals, 15 health posts and mobile clinics throughout the region.

Community Health Nurses give talks on health, sanitation and hygiene. Health Inspectors do check buildings, sanitary conditions and indiscriminate defaecation.

The Social Welfare Department works with Town Development Committees. The Information Department and Ghana Broadcasting Corporation disseminate information. The Regional House of Chiefs assist to approach village chiefs. The National Youth Council co-ordinates all organizations involved with young people.

The National Council on Women and Development (NCWD) organises women groups to help themselves.

The Catholic Mission and other churches give worthwhile assistants. Many have slide projectors and public address system as well as Christian Mothers Association (CMA).

## FAILURES

a. Dams construction and utilization failed, people did not understand purpose ~~to~~ function of valves.

b. Failure of latrines usually inspired by Expatriates to win acceptance.

c. Reported failure of a programme near Garu in Upper Region to teach construction of a simple compound water filter out of readily available local material.

d. Failure of medical authorities to convince mothers to stop giving children frequent enemas.

The success of Upper Region programme was because the programme was thought out with great care and the support of all agencies and the people at the initial stage. The programme was developed from the rural villagers frame of reference. Goals and programmes were established from another frame of reference (Expatriates). For instance, a suggestion to teach people to boil water before drinking seems straightforward enough. But when viewed from the villagers' point of view - that wood is far to carry and too scarce and valuable to waste on boiling water - it could be considered unacceptable.

"Water for all by the year 1990". Not polluted or dry throat for the Africa people who are plagued with death through dirty water - Good water for good health.

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