COMMUNITY PARTICIPATION

IN WATER PROJECTS

The WaterAid experience in Ghana

March 1991

"The community is more willing to participate if the topic is not new and the tools they are required to work with are not sophisticated and they don't need an outsider to come and tell them how to use them and when they are given the chance to contribute their ideas. Then they know they are not doing what you want but what they want." - Thomas Adagbana, well supervisor, Binaba Area Community Health Project

"If you go to the village and you want their participation, then you should not differentiate yourself from them. The way you present yourself to them will be the way they also follow. If you go there and make yourself big or show you are more educated than them, then they will fear coming to you. Even if you want some information from them, you will not get it. But if you feel you are part of them, then they will also feel that they are part of you." — James Owusu, well assistant, Afram Plains borehole project

"In mobilising people for communal labour you ought to be tolerant and even become a slave to them. If you are able to do things in common with them and sometimes agree with them, then later on give them guidelines, you will be able to enjoy working with different categories of people and at the same time change them." — Davidson Owuani, well supervisor, Afram Plains

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Foreword

This document is a contribution towards a "software" manual being produced by WaterAid London. Software, for those not conversant with this current development buzzword, is a word coined to cover the non technical aspects of a project - everything from community mobilisation to health education and training. The term, human resource mobilisation, is probably more self explanatory, so will be used throughout this document.

This paper takes an in-depth look at how one water-providing agency approaches the task of human resource mobilisation.

International development organisations have realised recently that they have concentrated too much on the provision of structures - boreholes, pumps, pit latrines - while taking little notice of the people who use them. The belief is now growing that it is not enough to improve the facilities in a community. People are a community's greatest resource. Unless their views are taken into account and their outlook broadened then a community will remain impoverished and powerless.

In the case of a water project, the provision of the latest technology borehole will be of little benefit if the community continues to fetch water from a guinea worm infested pond because they prefer the taste. A well supervisor commented in the course of this research: "The people here are used to drinking brown water. So when the water comes from the well and it is clean they think something is wrong, that a chemical has been added to it." Community attitudes to health require just as much input as the construction work.

The necessity of people-centred development is increasingly discussed at international conferences and is the subject of many development texts. However, many people would argue that much of this talk has yet to be put into practice. This case study is an attempt to critically assess one organisation's experience in the field. Constraints and compromises are central to this experience, but it is important to openly discuss these. It is hoped that this documentation of a British NGO operating in Ghana will contribute to the process of developing strategies for empowering communities to take charge of their own development.

Methodology

All five WaterAid projects were visited in the course of writing this document - the Upper East projects in the rainy season in July 1990, and the southern projects in the dry season in January 1991. Community leaders in 35 villages were interviewed as were project workers at all levels whose work in the field was also observed.

Interviews with the following people formed the basis for much of the document.

Thomas Adagbana, well supervisor, Binaba Area Community Health project

Yvonne Agyepong, district health co-ordinator, Akuapem project

Bernard Ahiadeke, technical supervisor, NSS Kwahu project

Paulina Akolgo, health education co-ordinator, RuralAid

Kwadwo Appiah, NSS district co-ordinator, Kwahu South

Ron Bannerman, WaterAid programme co-ordinator

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Davidson Owuani, well supervisor, Afram Plains

James Owusu, well assistant, Afram Plains borehole project

Gani Tijani, programme assistant, RuralAid

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Glossary of abbreviations

BACH	Binaba Area Community Health project
CDR	Committee for the Defence of the Revolution
CIDA	Canadian International Development Agency
JSS	Junior Secondary School
NGO	Non governmental organisation
NSS	National Service Secretariat
PHC	Primary health care
PNDC	Provisional National Defence Council
UNDP	United Nations Development Program
VHC	Village health co-ordinator

1. The projects

1.1 WaterAid is a British funded NGO which has been operating in Ghana since 1985. It works in partnership with Ghanaian organisations to provide water for rural communities, primarily by constructing hand-dug wells. Projects are initiated by local partners which identify an area's needs and contact WaterAid. WaterAid's main role is to provide funding. The partner organisations oversee the finances, employ the technical staff, and manage the projects. Proposals for funding are only approved if community participation is integral to the project. Recently the provision of sanitation facilities has been incorporated into several projects.

1.2 BACH

WaterAid funds the water and sanitation programmes of the Binaba Area Community Health (BACH) project, a community group under the auspices of the Anglican church. In addition to water and sanitation, BACH also works in the field of women's income generation. After three seasons BACH has completed 20 hand-dug wells and six pit latrines in individual compounds.

1.3 RuralAid

WaterAid is the main funder of RuralAid, an aspiring NGO which operates in Bongo, Sandema, Bawku East and Bolgatanga districts of Upper East Region. The project has completed 97 hand-dug wells in three years and has a further 96 under construction. The project is moving into the fitting of partly locally manufactured hand pumps with technical assistance from the World Bank. Funding is being sought from a UNDP programme to set up two nurseries to provide seedlings for afforestation at well sites.

1.4 Afram Plains

Two WaterAid funded projects are being run in conjunction with different church organisations.

1.4.1 The Presbyterian Church of Ghana

After four years, 12 hand-dug wells have been completed and a further nine are under construction. The project has been beset by technical problems with the average depth of wells reaching 60 - 70 feet. Hard rock has necessitated the use

of a compressor in most cases. India Mark II pumps have been fitted on ten finished wells. Aquadev pumps have been fitted on the other two. Two communities have begun preparations for building improved communal pit latrines.

1.4.2 The Catholic Church of Ghana

WaterAid has assumed responsibility for the maintenance of 28 boreholes funded by the Catholic church. A year-and-a-half ago when WaterAid took over, 17 of the boreholes were inoperative. Some had been out of action for as long as nine months. Twenty-seven are now functioning. Well aprons, drainage channels and washing slabs have been constructed to cut down on spilt water contamination. Village artisans are being trained to carry out basic maintenance of the India Mark II pumps.

1.5 The National Service Secretariat, Kwahu South

Sixteen technical institute personnel doing their national service are supervising the construction of 19 hand-dug wells in the district. Eight wells have been completed and 11 are nearing completion. The project is administered by the National Service Secretariat, a government organisation, and funded by WaterAid.

1.6 The Akuapem Underground Water Development Committee

In four years of operation, 36 WaterAid funded wells have been dug, and 20 are under construction. India Mark II pumps are being fitted on finished wells. Work on the construction of two improved communal pit latrines has started.

2. The policy on community participation

"A criteria for funding is high levels of community participation. The main reason is WaterAid's belief in self determination - that regardless of their wealth or poverty, people should be able to make their own decisions about their community." - WaterAid Conference on Rural Water Delivery Report

2.1 The principle of community participation is central to WaterAid's operation. WaterAid believes that a project can only achieve long term success if the community feels that the water facility belongs to it. The old paternalistic approach to aid where outside organisations provided structures free of charge and effort on the community's part resulted in a distancing of the community from its well or borehole. Examples of communities neglecting the upkeep of their water facilities, in the belief that it was the responsibility of the donor agencies, abound in Ghana in the form of broken down pumps and crumbling wells.

2.2 The principle is put into practice by the insistence that communities initiate the process by coming forward with a request for help. Probably the greatest test of a community's willingness to help itself is the proviso that community members do the bulk of the work - digging the well and providing sand and gravel. WaterAid funds the equipment, the concrete and the technical supervision. Digging the well is no small undertaking with some wells reaching 80 - 90 feet and requiring many months work. This investment of time and labour should mean the community has a stake in making sure the final product is maintained. The community's responsibility to maintain the well is stressed and in the case of a pump being fitted, the community is asked to open a bank account and deposit ¢30,000 towards the cost of replacing pump parts.

2.3 It is relevant here to define a community. A community does not necessarily mean an entire village. For WaterAid's purpose it is simply a group of individuals with a common interest in securing safe drinking water. It could be a group of compounds, a geographical section within a village or an interest group in the community such as a church group which is committed to digging a well. In the Upper East where 50 - 60 people can inhabit one compound house a community can consist of just five compounds. Difficulties can arise if a narrow interest group controls the well. For

that reason interest groups are generally not allowed to prevent non members from using it. Usage can usually only be restricted to dwellers in a geographical area of a community.

3. The practice of community participation

"It's very easy to sit down and theorise about what the community should and shouldn't do from an intellectual point of view. The community know what they are prepared to do. No amount of saying they can provide more will change that." – Ron Bannerman, WaterAid programme co-ordinator

3.1 Entry

3.1.1 In most cases WaterAid does not have to embark on an extensive advertising compaign to encourage people to dig their own wells. This is especially so in the north of the country where there is a long history of well digging because sources of surface water are few. Once a WaterAid partner's operations in a community are known, applications flow in at a greater rate than projects can handle. In the south, Akuapem's experience is very different. Surface water is readily available from streams and rivers. Quality rather than quantity is the problem, but communities need to be convinced that the water they have been drinking for years is the source of a number of diseases. Much more preparatory work has to be done to persuade residents of the need to construct a source of safe water. In the first two years of the Akuapem project's existence only five wells were constructed. They were used as show pieces where representatives of other communities were taken to see what was possible with community effort.

3.1.2 There are three main ways that the community hears about WaterAid funded projects.

(i) The district assembly
In every locality where WaterAid works the official body governing the area's development, the district assembly, is informed of its operations. WaterAid funds projects in nine districts – Bawku East, Bawku West, Bongo, Sandema and Bolgatanga districts in Upper East Region; and Kwahu North, Kwahu South, Akuapem North and Akuapem South in Eastern Region. District assembly members take the message back to their electoral areas. In several cases in Akuapem, assembly members resident in a village have been the driving force behind a community's commitment to dig a well.

(ii) Knock on effect
Nearby communities hear of a well being constructed in their area and ask the inhabitants how to secure the project's help.

(iii) Community leaders
Projects develop an informal network of contacts such as health workers, educators and local dignitaries who act as local contact points.

3.1.3 The first step in the process is for the community to write a formal request for help. A series of meetings between the project's well supervisor and the community ensues. At the first meeting the well supervisor usually just meets the chief and elders, explains the project and asks them to organise a larger community meeting. At this second meeting the supervisor explains the project's conditions. These are basically:

(i) The community must do the digging and provide the sand and stones.

(ii) The community must set up a water committee of about six to eight members, including some women, to oversee construction and maintenance. It fulfils the function of community leadership and acts as a liaison point between the community and project staff.

(iii) The project provides tools, equipment, concrete and technical advice.

3.1.4 In Akuapem this has been formalised in a "terms of reference", a type of contract which the two parties, the Akuapem Underground Water Development Committee and the community, must sign.

3.1.5 The community may ask the project worker to come back at another date when people have had time to discuss the conditions. The series of meetings also provides an opportunity for WaterAid's partner organisations to assess how urgent the community's need is and how willing the community is to contribute. The very fact that several meetings have successfully taken place is an indication of a certain level of commitment.

3.1.6 The project's local management committee makes the final decision about which requests will be acted upon. The level of community willingness to see the project through is a major criterion as well as the community's distance from a source of safe water.

3.2 Siting

3.2.1 The decision on where to site the well involves an consideration of the community's views as well as the technical experience of the well supervisor. The supervisor will have built up knowledge over many years about where water is likely to be found, but the community members are the ones who will use the well and must therefore approve of the site. If it is too far away or on a piece of land that belongs to someone who is not in favour of the project, problems will arise. In the Afram Plains the well supervisor asks the community to choose three sites, stressing that none of them should be on top of a hill, near a cemetry or close to an area used for toiletting. The supervisor then selects the best of the three sites.

3.3 Digging

3.3.1 Once agreement has been reached with the community, the well supervisor hands over the tools and equipment - a pick axe, a shovel, a rope ladder, a bucket, a rope and a crash helmet. He marks out a diameter for the well and asks the community to start digging. On the first day either he or a technical assistant digs with the community.

3.3.2 The community's water committee organises the men into work teams of about eight men per day to carry out the excavation. The men work underground one or two at a time for shifts of around 20 minutes. In the southern projects (Kwahu, Akuapem and the Afram Plains) the arrangements are often quite formal. A register of attendance is kept by a work foreman. Fines of up to ¢1,000 are charged for defaulters who do not provide a good excuse for their absence. In Kwahu each work gang is assigned a target of two feet per day. If they fail to complete the target, the amount by which they failed is added to their target for the next digging day. All these penalties have been initiated by the communities involved, not the project staff.

3.3.3 In well organized communities digging may serve a dual purpose. The earth being dug up can be used for construction purposes. In Tawia Nkwanta, Akuapem, a day care centre is being built from the excavated clay.

3.3.4 How long the digging takes depends on the depth to which the well must go, the area's geology and the community's attitude to work. In the case of RuralAid in Upper East where the ground is not too rocky and wells average a depth of 30 feet, wells can be dug in as little time as two weeks. At the other end of the scale in the Afram Plains, the water table is very low and wells average 60 - 70 feet. A compressor has to be brought in more often than not to break through hard rock. Wells there typically take a year to complete. The need to share three compressors between a dozen or more sites contributes to the delay. One Afram Plains well took three years to complete.

3.3.5 The well supervisor visits the communities regularly to assess progress, to deal with problems and to boost morale. It is at the digging stage that the level of community involvement and enthusiasm for the project is most evident. In a well motivated community random visits will find the diggers hard at work and community members will come out to greet the "stranger" from the project base. If there is a motivation problem it can be hard to find anyone around to explain; everyone is suddenly "at farm". When there is a serious problem tools are withdrawn until the community is willing to work again. Often the threat of withdrawing tools is enough to reactivate interest.

3.3.6 Skilful negotiation is needed to avoid demoralisation if hard rock is struck or a half dug site needs to be abandoned in favour of another site. Such cases test the level of animation of the community and the well supervisor's ability to inspire confidence. BACH recorded two cases last year where communities worked very hard then hit hard rock and began again in a different site only to encounter the same problem. Although the experience was discouraging the communities were well organised and one of them is trying this year for the third time.

3.3.7 All well supervisors are quite clear that their role is to boost the community's confidence to see through the project themselves. They work together with the community, showing themselves not to be above manual work. When the community feels strongly about something the supervisors sympathise with them and try not to disagree, at least initially.

3.3.8 In Akuapem and the Afram Plains the use of a compressor is common. This necessitates the stationing of a technical staff member to oversee its use. Community members are trained in its use and asked to take responsibility for its

safe storage overnight. Contributions from the community are sought to cover the cost of the diesel. The policy varies in different projects. The Akuapem project insists that the community foots the entire diesel bill. How these contributions are collected - whether by periodic donation drives or by the charge of a set levy per man and woman - is the decision of the water committeee. An average well might use five gallons of diesel per day for ten days to finish the well, amounting to ¢40,000 fuel costs. (The World Bank estimates that the average income of a farming household ranges from ¢40,000 to ¢100,000 per year.) In the Afram Plains realism has prompted a WaterAid decision to finance half the diesel cost. The cost to the community was proving prohibitive with as much as 50 gallons of diesel being needed to break through one foot of rock. New methods of recovering costs are being considered such as organising durbars (fundraising galas) for villagers to sell foodstuffs.

3.4 Lining

3.4.1 The most common forms of lining - lowering precast concrete rings or setting the concrete in situ - require a higher level of technical supervision than the digging process. Community members act as assistants to a trained project staff member. They help in cleaning and assembling moulds and in the mixing and pouring of concrete.

3.4.2 Alternative methods of lining being used in Upper East enable much greater participation by the community. RuralAid is increasingly promoting a lining system of curved interlocking blocks. A simple block mould, made locally for ¢5,000, is lent to communities for local people to make their own blocks. Village masons are trained to supervise the moulding and the laying of blocks. Although it is not a suitable method for very deep wells, it has proved efficient in that the work can proceed very quickly without having to wait for intervention from project staff.

3.4.3 The nearby BACH project uses a variety of methods including similar block moulds and traditional stone lining. An advantage of the latter is that the work relies more on the community's effort to gather large laterite stones than on bringing in heavy imported moulds. The supervisory role can be played by a traditional stone liner from the locality.

3.5 Pumps

3.5.1 India Mark II and Aquadev hand pumps are being fitted to completed wells in the Afram Plains and Kwahu. In the RuralAid project, however, communities have vetoed the idea because of a negative experience with pumps fitted in the 1970's. The maintenance service was poor and water tariffs high, resulting in a high proportion of pumps being inoperative. Communities now say they prefer a well which they know will not break down. In this case, RuralAid has respected their wishes. As a cleanliness measure, lids have been fitted instead and one communal bucket allotted for the drawing of water. However, the decision is not a fixed one and RuralAid is now trying to update the communities' views on pumps. An education campaign is commencing aimed at persuading villagers that well maintained pumps are a viable option. With technical aid from the World Bank it is intended to fit Nira AF85 pumps, suitable for village level operation and maintenance, in willing communities.

3.5.2 In Akuapem fears of the unreliability of pumps are appeased by including access hatches in the lids. In the case of a pump breaking down the community can continue fetching water manually.

3.5.3 While the principle of village level operation and maintenance is endorsed by WaterAid, is some time away from realisation. The India Mark II pumps being used in Akuapem and the Afram Plains still require a considerable level of outside assistance. Routine maintenance and cleaning can be undertaken by the community but anything involving dismantling calls for a technical supervisor. Akuapem reports a smooth running operation with no breakdowns yet.

3.5.4 Training for community maintenance is more developed in the Afram Plains borehole project where 28 people from four villages have received intensive training. The chiefs and village elders in these communities were asked to select a group of men who would be interested in learning maintenance and who intended to stay in the village for some time. Training sessions began in the classroom with an explanation of pump parts and tools, then moved to the well site for a practical lesson. These villages can now almost maintain the pump independently but the well assistant in charge of maintenance is reluctant to leave the tools with the community in case an accident occurs which would create a more serious repair problem such as the rising mains dropping into the borehole. Efforts are being made to overcome this obstacle by repeatedly involving villagers in

assisting project staff to haul the pipe out. The repitition should ensure that safety precautions become automatic.

3.6 Maintenance

3.6.1 A functioning system for maintenance is one of the most important indicators that the policy of community participation is working. There is no set rule on how a community raises money to meet maintenance costs, but all projects make it clear to the communities that they must decide upon their own system. The rules of operation are left for the community to set, for example whether water collection times are set and the pumps locked and what the attitude is to outsiders using the facility.

3.6.2 Maintenance costs are negligible in the case of wells if the well is kept clean and used properly. But in the case of a pump, having the cash to repair it is crucial to its viability. In the pump projects, the policy is that the community should open its own bank account and deposit ¢30,000 for maintenance before a pump is fitted. However, this condition is often waived due to difficulty in enforcing it. Lesser amounts are accepted or, in other cases, no community account has been opened and collection of repair money takes place in an ad hoc manner. Project staff believe that the problem is not lack of money but accountability. Villagers do not want to part with hard earned cash to deposit in an account to wait for a repair need to arise. They are wary of entrusting large sums of money to community leaders because of past experience. In a largely subsistence economy the idea of paying out money before it is needed is an anathema. In the Afram Plains borehole project not one of the communities has opened an account or paid a ¢30,000 deposit. However, once a part is broken down, money to repair it is forthcoming. It may take some time to mobilise the money, though, so spare parts are sometimes given out before payment is made. The experience so far is that the money is usually recovered, but it can be slow.

3.6.3 Ways of raising money vary from community to community, but one of the most common methods is to levy an initial flat rate per man or woman, then make periodic collections when the need arises. In communities close to a town such as Donkorkrom in the Afram Plains, outsiders are charged per bucket of water collected. Contributions in kind instead of cash are encouraged by project staff in areas where there are cash flow problems. A farm has been established at Kwesikrobo in the Afram Plains to grow produce to sell to

meet maintenance costs. In another Afram Plains village, Apiabra, every adult is being asked to contribute a pan of maize. In this village of 90 adults, with a pan of maize fetching ¢400, it is expected to raise ¢36,000 for the maintenance fund.

3.7 Latrines

3.7.1 Sanitation is being introduced into three projects, BACH, the Afram Plains Presbyterian church project and in Akuapem. BACH is the most experienced in this field with six latrines completed. It differs from the other two projects in that, apart from demonstration latrines in schools, it will only fund single pit latrines in private compounds. The rationale is that communal latrines tend to be ill kept and unhygienic, resulting in a potentially worse health hazard than free ranging. Cultural factors also influence the policy. In the north, compound houses are far apart and so one latrine per house is a more viable option. In the south, a shortage of space means that communal latrines are more appropriate. In the BACH project individuals who have requested pit latrines tend to already have access to a safe supply of water and to be more educated than the rest of the community, indicating that they have been reached by health education messages. The agreement is that the household does the digging, BACH provides the concrete slab which the owner has to water until it is cured. The householder is then expected to build a superstructure.

3.7.2 Work has started on the first few communal latrines on the the Afram Plains and in Akuapem where communities have already dug wells. Improved pit latrines with six to eight squat holes are being built with community labour and cement and technical help from the projects. Generally, they are unlined unless a community raises money for cement to line them. In Akuapem the demand is high because of local taboos against defecating on another person's land. Some communities see a toilet as a higher priority than an improved source of water. One Akuapem village is known to have bought 15 bags of cement to line a communal toilet whereas that sort of money would be difficult to raise for lining a well.

4. Women's participation

"It is women who spend hours each day collecting water for the family, carrying heavy containers over long distances. It is women who suffer miscarriages, slipped discs and arthritis as a result. And it is women who have to nurse sick members of the family - sickness often caused by water-related diseases." - WaterAid Annual Review 1990

4.1 WaterAid considers the participation of women to be important in any water project. After the well has been completed women are the primary users and take responsibility for the day to day maintenance. It is vital therefore that women are part of the project from the beginning and that their voices are heard at all stages of decision making. However, in rural communities where it is considered that women are represented by their husbands, and women are not used to speaking out at mixed meetings, empowering women is a long term goal, not a change that can take place in the course of one project.

4.2 The initial meetings, when the well supervisor meets the community, usually involve men only. It may start with the chief and his elders then extend to a wider group of adult men. At perhaps the third meeting, and sometimes only at the insistence of the well supervisor, women will be present. Project supervisors are aware that women may not always feel comfortable speaking out in front of men, so they often try to solicit women's views in private after a meeting. This can be particularly useful if there is a problem which no one will explain to an outsider. The women can usually be relied upon to divulge the source of the problem because they are often more anxious to secure a better source of water to improve their families' health.

4.3 The village water committee is seen by WaterAid as a vehicle for representing women's opinions and bringing them into the village power structure. The official policy is that three out of six representatives must be women. In practice, though, women rarely make up half the numbers. The norm is that at least one committee member is a woman. Commonly the ratio is more like two women to six men. In one village visited there were 10 male committee members and no women, though women were being sought.

4.4 Communities see women's roles on the committee as primarily to organise women's labour. Teams of women gather stones and

sand while the men dig. If the stones need to be broken the task is done by women in some communities, and by men in others. Women are often assigned to cook for the diggers, especially if a technical assistant from the project base is stationed there.

4.5 Once the well is finished women tend to play the major role. They assume the main maintenance duties - making sure it is swept, kept clean and that in wells without a pump one bucket only is used for drawing water. When the health education training begins, women assume a higher profile role, organising and leading community training sessions on health education. It is through this role, which combines women's traditional concerns for family health with a more untraditional role of running meetings and being seen an expert, that women's status in the decision making process can be improved. Outside influences also have a strong bearing on community attitudes. The northern projects report that the government's encouragement of women's involvement in development activities through the 31st December Women's Movement, a rural oriented women's group, has brought women more into public life and improved their skills.

5. Health education

"We don't have good eyes to see whether there's germs in it." - Mampong-Nkwanta community, Akuapem on the water they were fetching from streams.

"The training was useful because it was about health. Without health life isn't worth living." - Village health co-ordinator, Shirigo Kulko, Upper East.

5.1 Primary health care

5.1.1 WaterAid's health education programme reflects an emphasis in Ghana on the primary health care philosophy. Primary health care seeks to tackle illness where it begins, in the community, and to concentrate on prevention rather than on expensive, high technology cures. Waterborne diseases such as diarrhoea, typhoid, cholera, guinea worm and bilharzia are a major cause of ill health in Ghana. WaterAid recognises that improving a community's source of water is the first step towards eliminating these diseases. But the technical solution, a well or a borehole, is not the complete answer. The people using the water source must understand the link between this water and their own health and must be motivated to keep the source clean.

5.2 Village health co-ordinators

5.2.1 WaterAid uses local village representatives known as village health co-ordinators, (VHC's), to get the message across in the communities its projects work in. Each community is asked to choose one woman and one man to act as a VHC. BACH is an exception. It encourages its communities to choose two women and one man. The reason is to provide more support for the women chosen to do the job. The criterion is not those people's level of education or literacy, but wnether the community has respect for and confidence in them. Villages are grouped into clusters of about 18 communities. Their VHC's are brought together for two-day training sessions on simple topics. The first phase of training covers safe water; the second, waterborne diseases and the third, sanitation. The first two phases have been completed and the third is due to begin in April/May.

5.3 Training materials

5.3.1 The training course is based around simple picture books suitable for use with people who are not literate. For example, the safe water manual features 12 full-page drawings, with good and bad practices (distinguished by a tick or a cross) on opposite pages. The double page with the message "keep the bucket clean" shows first a bucket on top of a low wooden table inside a well swept room. Facing it is an illustration of a bucket overturned on its side in a yard with a chicken walking inside it, flies buzzing around and a child defecating nearby. The books were prepared by a professional artist and pretested in similar rural communities before publication. As a result changes have had to be made to ensure that local buildings and styles of pots are well represented. The changes may be small, but it is important the the user group identifies with the scene. There are separate manuals for the north and south of the country which are markedly different culturally and geographically.

5.4 Training the trainers

The projects identify literate members of the community with an interest in the topic (for example, teachers and nurses) to be trained as trainers. They are given a one-day orientation course in English and are then asked to repeat this course in the local language with the VHC's.

5.5 Training methods

5.5.1 The training method is participatory and non directive. VHC participants are asked to look at the pictures and discuss what they see. As far as possible it is left to the trainees to come up with the relevant messages. The trainer should only make an input after a well rounded discussion has failed to formulate a clear or appropriate message.

5.5.2 Role plays and songs are also used. Participants are split into groups and asked to improvise a drama on a simple message. Well acted and effective dramas often result. Songs have also proved popular, especially in Upper East where messages such as "wash your containers before fetching water" have been set to old tunes accompanied by dancing and clapping.

5.5.3 The VHC's are then issued with the picture books and asked to organise communal discussions once a week on different topics. The idea is that the female VHC talks to the women

and the male VHC gathers the men. In practice, though, the women have been more active, and have also been addressing mixed meetings.

5.5.4 The use of other opportunities to spread the message is also encouraged. Much of the education is done informally, in the course of conversations while waiting at the pump to collect water. In one Afram Plains community, Apiabra, the VHC uses the last five minutes of the church service to preach health education to the congregation.

5.6 Health education supervisor

5.6.1 Each project is supposed to have a full time health education supervisor. This has been most successful in the case of RuralAid where a permanent member of staff has been appointed. In other projects technical students or sixth formers doing their National Service have been assigned this role. The health education supervisor's job is to visit communities, offer support to the VHC's and monitor the cleanliness of the well or borehole site and kitchens where the water is stored. A monitoring form (see appendix) has been printed to facilitate systematic monitoring.

5.7 Audio visual aids

5.7.1 Audio visual aids are being developed for training. A video in local languages on safe water use produced by the National Service Secretariat is about to be completed. The purchase of a portable projection system using still film strips is being investigated.

5.8 Evaluation

5.8.1 The health education programme only began just over a year ago, but has had notable success so far. Surveys were carried out before and after the first health education training to assess its impact. In the RuralAid project 40 out of 80 well communities were studied. In Kwahu ten out of 15 were surveyed and in the Afram Plains eight out of twelve were communities were studied. The results were as follows:

5.8.2

	Clean well site	
	Before training	After training
RuralAid	20%	100%
Kwahu	0%	40%
Afram Plains	50%	90%

5.8.3 Use of one communal bucket

	Before training	After training
RuralAid	0%	95%
Kwahu	0%	5%

5.8.4 The post training survey showed that in all three projects 90 per cent of households or more were keeping their drinking water covered.

6. Evaluation of community participation

"Community participation in my area is not something that has been with us since time immemorial. For a long time people used to have things free without contributing anything; labour or money. WaterAid has been something of a pacesetter in development. No organisation or individual has been able to organise the community into anything apart from this construction of wells." - Adjei Hall, well supervisor, Akuapem

6.1 Ensuring a community is fully involved in its development process is a lengthy business requiring much more time in consultation than the traditional directive approach of handing down aid to a passive community. Establishing WaterAid's projects took several years. In the first three years only 25 wells were completed. However, slow, patient groundwork paid off and in the subsequent 18 months 135 wells were finished. Much experience has been built up by project staff in mobilising communities and encouraging them to take charge of the construction and maintenance of their water facility, and over time more and more success is being recorded. WaterAid has no formal method of evaluating its level of community participation. A basic measure is that without substantial community participation, none of the 170 wells would have been completed, because they rely on local effort and motivation.

6.2 The self help principle

6.2.1 WaterAid's approach to community participation accords with the PNDC Government's promotion over the last ten years in office of the concept of self help. Rural communities are being told that they can no longer expect handouts from central government. Villages are being asked to generate income to build Junior Secondary Schools or put up their own health centres.

6.2.2 The prime agents of the country's decentralisation process are the 110 district assemblies which came into being in 1989. They are responsible for planning the development of each district. Two-thirds of the assembly members are elected to represent electoral areas and to promote their development. WaterAid projects have been able to link into this structure, using the district assembly as an entry point to spread the news of their operations.

Individual assembly members, concerned with bettering the status of their electoral area, have become community facilitators in many villages.

6.2.3 The government's commitment to community-initiated rural development has benefitted WaterAid projects. Many of the communities WaterAid projects work with have accepted the principle of self help and were well placed to take on a water project before calling in WaterAid. Quite remarkable levels of community effort have been recorded. The village of Alavanyo in the Afram Plains not only found the energy to dig down 75 feet before reaching sufficient quantities of water, but had already constructed a three kilometre road so that well digging equipment could be driven in from the main road. Another committed community, Gbantongo in BACH's area, dug three separate wells, hitting rock each time. On the third attempt BACH agreed to line it as a wet season well and sent a bag of cement to the site. The community met and decided that although they had laboured hard they would prefer that the cement was sent to another community rather than be wasted on an inferior well.

6.2.4 In areas such as Akuapem where the idea of communal labour has not taken hold, WaterAid projects are playing a pioneering role. There the activity of another NGO was influential in shaping community attitudes to development. The organisation had set a precedent in Akuapem by drilling boreholes free of charge. Subsequent efforts by project staff to convince neighbouring communities that they must work to dig their wells met with a hostile reponse. Comparison with the NGO even led to a campaign of rumour mongering suggesting that the well supervisor was a contractor paid to dig wells who was making money out of communities' free labour. A lot of discussion was needed to convince communities of the value in digging themselves. Acceptance was eventually aided by the fact that many of the free pumps broke down with no sustainable maintenance programme in place.

6.2.5 A potential matter for concern is whether the ethic of self help can place too heavy a burden on near subsistence rural communities. The poverty of many rural villages creates the need for organised development projects. Yet those most in need are restricted in their resources to carry out these projects. For a community in urgent need of a well, a school and a health clinic, establishing priorities can be difficult. In the Kwahu village of Aprahwiem such confusion arose. Cement sent to their well site for the precasting of a caisson ended up being used to build their JSS.

The project's response was to advise the community that whenever it was ready to replace the cement, work would continue on finishing the well.

6.2.6 By and large though, those most in need of water and those living in communities with less disposable incomes such as Upper East and Afram Plains communities have proved to be the most committed. In the Afram Plains the communities have participated in construction to a level beyond WaterAid's expectations. Despite community willingness, WaterAid has been forced to re-evaluate the appropriateness of hand-dug wells in such rocky ground. In Kwahu and Akuapem where surface water is more readily available and residents are better off financially, achieving community participation can be a struggle. Better educated residents there look down on manual labour, and, in the case of some Kwahu communities, would prefer to pay someone else to do it.

6.3 Leadership

6.3.1 The quality of leadership is a prime determinant of how successful a project involving community participation will be. The WaterAid funded projects allow the community to choose its own leaders in the form of a water committee. Whoever is on the committee, account still has to be taken of three main sources of community leadership which exert an influence - traditional leaders, modern institutions and informal leaders.

6.3.2 Traditional leaders such as chiefs and elders are consulted before entering a community, and their blessing bestowed upon the project. The chief's support, even just by visiting the well site to encourage the diggers, acts as a morale boost. In the Afram Plains and Akuapem where many of the communities are immigrant communities, not native to the area, there is less social cohesion and it is harder to organise the people. In such cases tribal sentiments can cause friction as in Amankwakrom in the Afram Plains where several tribes were resettled after the flooding of the Volta river in the 1960's to create the Akosombo dam. The community of about 2,000 is ruled over by five different chiefs. Trying to get agreement on the beating of the gong gong drum to signal communal labour is difficult.

6.3.3 Modern organisations, such as the government's "revolutionary organs", play an very active role in the communities WaterAid projects work in and are the source of many water committee members. The main groupings are: the Committee for the Defence of the Revolution (CDR), a village

level government-aligned authority; mobisquads, groups of young people organised into voluntary work squads; and the 31st December Women's Movement. In the vast majority of instances their contribution has been very positive. But in the few cases where representatives of these organisations have opposed water projects, the effect has been very disruptive. In some Akuapem villages CDR members were behind a disinformation campaign, claiming corruption was being practiced by project staff.

6.3.4 Informal leaders often emerge as the people who take actual responsibility for the well. They may be educated individuals, or people respected for hard work. They are likely to be people with more time available for a new project than formal leaders so they develop a strong interest in construction or, in the case of women, in promoting health education. Identifying, encouraging and training these leaders can provide the key to the long term sustainability of the well or borehole.

6.4 Development impact

6.4.1 The actual construction of a well is not the end of the development process in a community. In the course of the work the community will have built up a level of leadership, organisation and technical knowledge which can be put to use in other projects. The confidence some communities have gained in their ability to improve their situation is evident in their enthusiasm to add sanitation projects.

6.4.2 Links have been made in two projects, RuralAid and Akuapem, between the provision of water and the need for afforestation. In the Upper East, where the lack of trees is a visible problem, the villagers themselves suggested a tree planting programme. Funding has been sought from Africa 2000, a UN environmental programme, for nurseries to be established to provide seedlings for growing trees around well sites. In Akuapem, with the help of the Forestry Department, the establishment of community woodlots around wells for income generation to meet pump maintenance costs is being promoted.

6.4.3 The collective spirit developed in the course of digging wells in two communities in Bongo district, Upper East, is being transferred into the commercial sphere. The villages' basket weavers learnt the benefits of working together and have now formed marketing co-operatives for their crafts.

AKUAPEM UNDERGROUND WATER DEVELOPMENT COMMITTEE IN ASSOCIATION WITH WATERAID

RURAL WATER SUPPLY PROJECT TO AKUAPEM VILLAGES

NAME OF VILLAGE:

It is agreed as follows:

1. The Akuapem Underground Water Development Committee and WaterAid will provide the cement and reinforcement required to construct a concrete lined hand dug well; protected with a cover slab and drainage channel; and fitted with a hand pump.

   They will also loan to the village the necessary tools and equipment to enable them to complete the work.

   In addition they will supply the required technical advice on the proper construction of the well and correct installation of the hand pump.

2. The village will collect all the sand and stone for the concrete and if necessary break the stone into the required size.

   The shafts of hand tools loaned for this work will be repaired by the village if breakages occur.

   During construction at least 8 men will be provided by the village for work everyday.

3. The village shall form a committee (which must include women) which will be responsible for the Water project.

   COMMITTEE MEMBERSHIP

(1)	CHAIRMAN	(5)	ORGANIZER
(2)	SECRETARY	(6)	MASON
(3)	WORK FOREMAN	(7)	C D R REPRESENTATIVE
(4)	STORE KEEPER	(8)	31ST DECEMBER,REP.

Initially they will eatablish a maintenance fund which will continue to receive regular monthly payments from the village from those using the well. The fund shall be kept and used solely for the purpose of maintaining the hand pump and well.

The committee will appoint a member or members of the community to receive instruction on the maintenance of the hand pump who thereafter will perform these duties.

The committee shall also be responsible for organising all communual labour, for keeping construction equipment secure and ensuring all hand tools are repaired.

The village shall buy Diesel for the compressor when the need arises for the use of compressor.

On completion of the well the committee shall continue to be responsible for it. They will continue to collect funds and maintain the pump; they will see that the surroundings are kept clean; that animals are kept away and that all users operate the pump correctly. Children and others will be discouraged from abusing the pump.

..... DATE.....

Signed For AKUAPEM UNDERGROUND WATER DEVELOPMENT
COMMITTEE/WATERAID.

.....DATE.....

Signed For THE VILLAGE - CHAIRMAN WATER COMMITTEE

C D R REPRESENTATIVE .....

WOMEN REPRESENTATIVE.

WATERAID HEALTH EDUCATION (GHANA)

MONITORING FORM 1

MONTH:

NAME OF VILLAGE:

DATE OF VISIT:

PREPARED BY:

1. HAVE VILLAGE HEALTH CO-ORDINATORS ORGANISED ANY MEETING WITH THE COMMUNITY SINCE ATTENDING THE HEALTH EDUCATION TRAINING WORKSHOP?

   (A).....YES (B).....,NO

2. HOW MANY TIMES?

   (A).....ONCE (B).....TWICE

   (C) .....THRICE (D) .....MORE THAN THRICE

3. IN WHAT CONDITION ARE THE TRIANING MANUALS?

   (A).....GOOD (B).....TORN

   (C).....LOST

4. IS WELL SITE CLEANED?

   (A).....YES (B) .....NO

5. HOW OFTEN IS IT CLEANED?

   (A).....DAILY (B).....WEEKLY

   (C).....EVERY TWO DAYS

6. IS BUCKET WITH ROPE KEPT CLEAN?

   (A) .....YES (B).....NO

7. HOW IS BUCKET WITH ROPE KEPT CLEAN?

   (A).....HANGED ON A PEG

   (B).....KEPT ON A TABLE OR RAISED SURFACE

   (C)..... ...KEPT ON THE PLOOR

8. IS DRINKING WATER COVERED?

   (A).....YES (B).....NO

9. WHERE IS DRINKING WATER KEPT?

   (A).....ON A TABLE(B).....ON A RAISED SURFACE

   (C).....ON THE FLOOR

10. WHAT IS USED IN FETCHIHG DRINKING WATER?

(A).....LONG HANDLED CALABASH

(B).....A CUP WITH A HANDLE

(C).....NO SPECIAL CONTAINER

11. HOW IS RIVER/STREAM/POND WATER TREATED BEFORE DRINKING?

(A).....BOILED (B).....FILTERED

(C).....NOTHING IS DONE (D).....DRINK FROM WELL/BORN HOLE.

ANGELA TIOKOR ODONKOR
(P/A (HEALTH EDUCATION)