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WATERAID GHANA PROGRAMME

824 GH92

COUNTRY

STRATEGY

APRIL 1992 TO MARCH 1993

WaterAid
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London

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ABBREVIATIONS

ACDECO	AKWAPIM COMMUNITY DEVELOPMENT COMMITTEE
B.A.C.H.	BINABA AREA COMMUNITY HEALTH PROJECT
ISODEC	INTEGRATED SOCIAL DEVELOPMENT CENTRE
G.W.S.C.	GHANA WATER AND SEWERAGE CORPORATION
N.S.S.	NATIONAL SERVICE SECRETARIAT
N.E.A.	NORTHERN EVANGELICAL ASSOCIATION
O.R.A.P.	OBUOMA RURAL ACTION PROGRAMME
V.H.C.'S	VILLAGE HEALTH COORDINATORS
V.L.O.M.	VILLAGE LEVEL OPERATION AND MAINTENANCE

1 INTRODUCTION

WaterAid is a British Non Governmental Organisation which has operated in Ghana since 1985. The main emphasis of the programme over that period has shifted from support in water supply to institutions like schools and hospitals to the provision of hand dug wells, health education and sanitation to Rural Communities.

The programme has worked with local groups in the Upper East Region in five of the six Districts and Eastern Region, namely Kwahu North and South and Akwapem North and South Districts. Support to the local groups has been in the form of funding, training, planning and management, the level and emphasis of this support has changed over the three year period as the local groups have gained strength and confidence. The level of management and planning from the WaterAid programme office has reduced and been replaced with monitoring and evaluation. The level of funding and training has increased as capacities have increased.

A total of 287 hand dug wells have been constructed at a cost of five hundred thousand pounds and an estimated sixty thousand people have been served with clean drinking water. This cost consists of all capital equipment including imported well mould shuttering and vehicles which are still in use.

The technical intervention has been supported by health education and training. The cost of this is incorporated in the total cost quoted. The provision of sanitation facilities has been slow because it was necessary for the programme to develop a sanitation policy and to create the demand for sanitation facilities at village level. The health education programme has achieved the latter evident from the number of requests for toilets, particularly in the Southern sector. The policy was developed at staff meetings.

The WaterAid programme office is housed in the office of the Integrated Social Development Centre, an indigenous Non Governmental Organisation with which WaterAid has been collaborating over the three year period. This relationship has worked well for both organisations.

The programme has developed strong working relationships with the Ghana Water and Sewage Corporation, the National Service Secretariat, The Ministry of Works and Housing, Non-formal Division of the Ministry of Education, The Department of Social Welfare and the Department of Community Development, Canadian International development Agency, The Overseas Development Administration, UNDP/World Bank Water and Sanitation Programme, ISODEC, the Management Development and Productivity Institute and the Ministry of Health. These relationships have been a major contributing factor to the programme's success.

2 PROJECTS SUPPORTED AND THEIR ACTIVITIES

PROJECT NAME and AREA OF OPERATION	LOCAL PARTNER and STATUS	ACTIVITY
BACH Bawku West	Binaba Area Community Health NGO	hand dug wells health ed income generation
ACDECO Akwapem South Akwapem North	Akwapem Community Development Committee NGO	hand dug wells health ed well supervisor training
AFRAM HAND DUG WELL Kwahu North	Presbyterian Church of Ghana NGO	hand dug wells health ed well supervisor training
AFRAM BORE HOLE Kwahu North	Catholic Church NGO	pump maintenance
RURALAID Upper Eastern Region	RuralAid NGO	hand dug wells health ed well supervisor training
O.R.A.P. Kwahu South	National Service Secretariat Government	hand dug wells health ed well supervisor training
TRAINING all projects	Isodec and NSS NGO	well supervisor, project committee and staff training
HEALTH EDUCATION all projects	Isodec NGO	Prepare health education material

3 PROJECT OUTPUT

PROJECT NAME	OUTPUT 1987 TO 1991	1991
RURAL AID	177 HAND DUG WELLS 200 VHC'S TRAINED	80 H.D.W.'S 320 VHC,S
BACH	31 HAND DUG WELLS 93 VHC,S TRAINED	15 H.D.W.'S 45 VHC'S
A.C.D.E.C.O.	43 HAND DUG WELLS 120 VHC'S TRAINED	22 H.D.W.'S 66 VHC'S
AFRAM H.D.W	12 HAND DUG WELLS 60 VHC'S TRAINED	10 H.D.W.'S
AFRAM B.H.	28 HAND PUMPS MAINTAINED 96 TRAINEES IN PUMP MAINTENANCE	REPLACE 28 PUMPS CONTINUE MAINTENANCE
O.R.A.P.	22 HAND DUG WELLS 66 VHC'S MAINTAINED	16 H.D.W.'S 48 VHC,S
TRAINING	49 WELL SUPERVISORS TRAINED. 6 SENIOR STAFF MANAGEMENT TRAINING	30 TRAINEES TRAINED STAFF TRAINING MANAGEMENT COMMITTEE TRAINING
HEALTH EDUCATION	8 HEALTH ED MANUALS PUBLISHED	DEVELOPMENT OF T R A I N I N G MANUALS AND AUDIO TRAINING AIDS

4 ORGANISATIONAL STRUCTURE

WaterAid does not implement its own projects but supports local groups. The local groups have a common structure comprising a management committee under which is either a programme assistant or a project supervisor under whom are team leaders for construction and health education followed by the junior staff. The WaterAid Programme coordinator relates to the management committee and the supervisor or the programme assistant directly.

There are two senior staff employed in the Accra office to cover the programmes which require coordination, namely health education and training. These posts have been graded at the level of programme assistant which is the most senior local staff grading.

The programme assistants for health education and training are responsible for organising their programmes in consultation with each of the projects, they also monitor and evaluate in their fields. The project supervisors are responsible for running the projects on a daily basis. The Rural Aid project has a programme assistant grade because of the size of the project and therefore the responsibility that individual has to carry.

The technical assistants constitute the construction teams and can be either paid staff, volunteers, seconded staff or contract workers. The ratios of these categories of staff varies from project to project.

The current staffing level/grade per project is as follows:-

PROJECT	GRADE	CATEGORY	NUMBER
RURAL AID	PROGRAMME ASSISTANT	PAID STAFF	1
	SUPERVISOR	PAID STAFF	1
	SUPERVISOR	SECONDED	2
	TEAM LEADER	PAID STAFF	4
	TECHNICAL ASSISTANTS	PAID STAFF	6
	TECHNICAL ASSISTANTS	VOLUNTEER	2
	TECHNICAL ASSISTANT	CONTRACT	7
	TECHNICAL ASSISTANTS	TRAINEES NSP	9
	DRIVER	PAID STAFF	1
	MESSENGER	PAID STAFF	1
TOTAL STAFF			34
BACH	SUPERVISOR	SECONDED	1
	TECHNICAL ASSISTANT	CONTRACTED	3
TOTAL STAFF			4
ACDECO	SUPERVISOR	SECONDED	1
	TECHNICAL ASSISTANT	PAID STAFF	1
	TECHNICAL ASSISTANTS	TRAINEES NSP	7
TOTAL STAFF			9

PROJECT	GRADE	CATEGORY	NUMBER
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AFRAM PLAINS H.D.W.	SUPERVISOR	PAID STAFF	1
	TECHNICAL ASSISTANTS	PAID STAFF	2
	TECHNICAL ASSISTANTS	TRAINEES NSP	7

TOTAL STAFF			10
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AFRAM PLAINS B.H.	TEAM LEADER	PAID STAFF	1
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TOTAL STAFF			1
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O.R.A.P.	SUPERVISOR	SECONDED NSP	2
	TECHNICAL ASSISTANTS	TRAINEES	8

TOTAL STAFF			10
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TRAINING	PROGRAMME ASSISTANT	PAID STAFF SECONDED	1
	TRAINING ASSISTANT	PAID STAFF SECONDED	1

TOTAL STAFF			2
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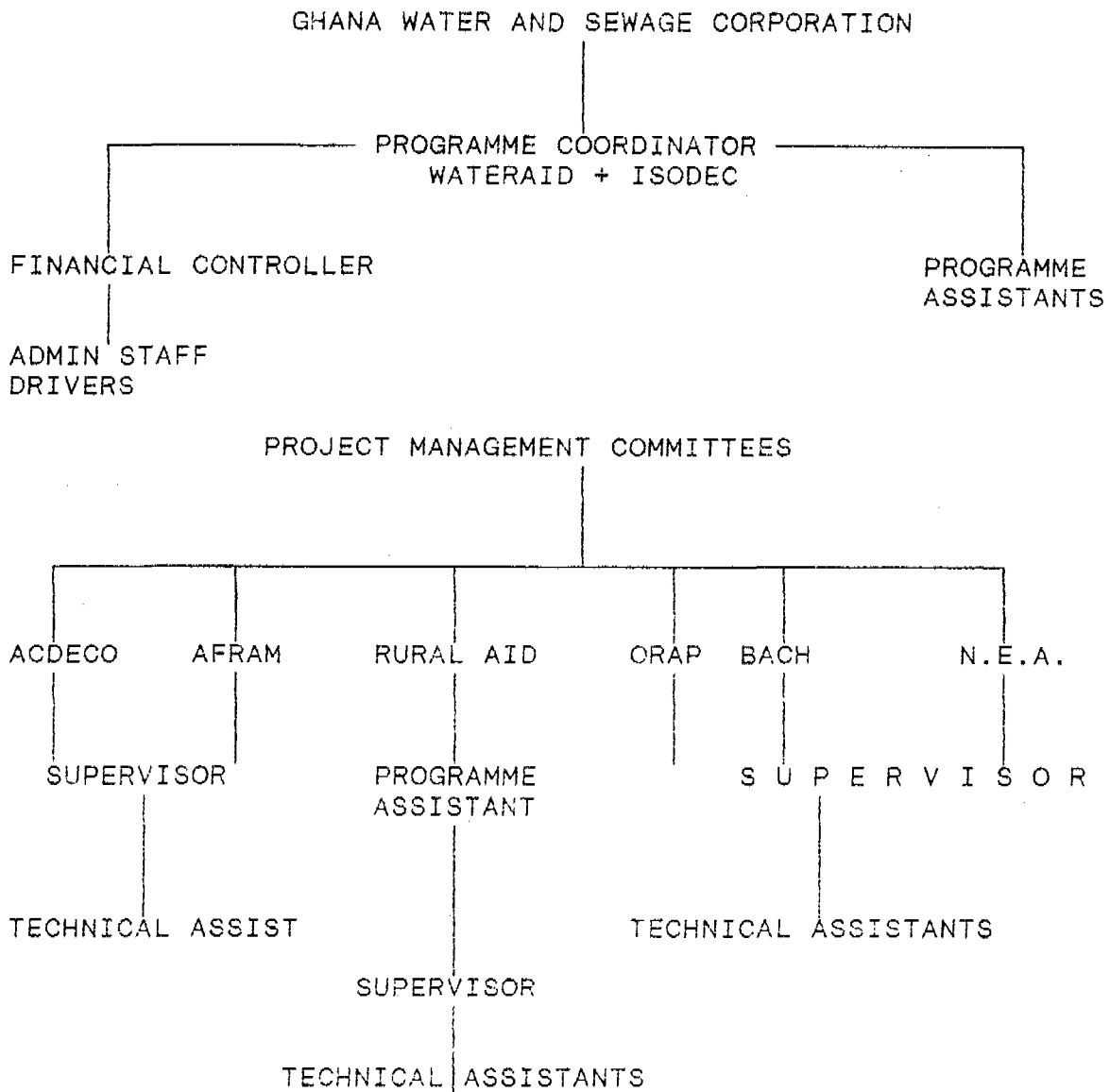
HEALTH ED.	PROGRAMME ASSISTANT	PAID STAFF SECONDED	1
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TOTAL STAFF			1
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PROJECT	GRADE	CATEGORY	NUMBER
ACCRA OFFICE	COORDINATOR	PAID STAFF	1
	DRIVER	PAID STAFF	1
	ADMIN ASSISTANTS	SECONDED NSP	2
	WATCHMEN	PAID STAFF	2
TOTAL STAFF			6

A total of 40 of the staff who work on or with the programme come from the Government of Ghana in one way or another. The majority of these are National Service Personnel, if we attribute a cost to this at fifty pounds per month, thirty thousand cedis, then this is a total contribution of twenty four thousand pounds per year.

WATERAID GHANA ORGANISATIONAL STRUCTURE



5 MODE OF OPERATION

All the projects currently funded by WaterAid in Ghana have the following similarities:-

- a Local management
- b They have management committees at the point of registering with the Department of Social Welfare as Non Governmental Organisations.
- c They emphasise the maximising of community participation, community management and maintenance.
- d Are committed to technical training and technology transfer.
- e They emphasise the use of appropriate technology as a lead to sustainable and replicable development.
- g Dependence on outside funding.
- h A health education strategy as the entry point for woman in rural water delivery.
- i A practical emphasis on the District approach to rural water delivery.
- j A working relationship with National service Secretariat.

6 THE STRATEGY

6.1 INTRODUCTION

The strategy is based on the programme evaluation and the recommendations made there of (appendix one). A proposed budget breakdown and summary has been included (appendix two). There will be a need to prepare an implementation plan to execute the strategy.

That the preparation of the implimentation plan would be started in October and done in consultation with Ghana Water and Sewerage Corporation, National Service Secretariat, The Ministry of Local Government, UNDP/Word Bank Water and Sanitation Programme, Isodec, the Departments of Social Welfare and Community Development, the project management committees and staff and WaterAid. The final draft would be put together by the WaterAid coördinator in Ghana.

6.2 STRATEGY CONTENT

6.2.1 The Government of Ghana

That WaterAid continues to support The Government of Ghana's National hand dug well programme through cooperation with the Ghana Water and Sewage Corporation and by continuing to support local groups interested in rural water delivery.

6.2.2 Existing Projects

That we continue to fund the existing projects with increased funding, training and strengthening exercises to achieve a total of 1200 wells by the end of 1995.

PROJECT	NUMBER OF WELLS			
	1992-3	1993-4	1994-5	TOTAL
Rural Aid	130	170	210	510
Bach	10	10	10	30
N.E.A.	12	12	13	37
ORAP	20	25	32	77
Afram plains	0	0	0	0
ACDECO	45	50	55	150
TOTAL	217	267	320	804
TOTAL WELLS COMPLETED AS AT JULY 1991				287
TOTAL WELLS TO BE COMPLETED BY APRIL 1992				150
GRAND TOTAL				1241

6.2.3 Health Education

That in each community which receives a technical intervention there will be health education training.

To achieve this that we extend the existing health education programme by producing additional training manuals, audio training material and training three rather than two Village Health Coordinators(VHC'S), who will subsequently conduct training in their communities. That this programme be monitored and evaluated regularly. That cooperation with the Ministry of health in relation to this programme be achieved.

PROJECT	NO OF VHC'S TO BE TRAINED			
	1992-3	1993-4	1994-5	TOTAL
Rural Aid	390	510	630	1530
Bach	30	30	30	90
NEA	36	36	36	108
ORAP	60	75	96	231
Afram*	0	0	0	0
ACDECO	135	150	165	450
TOTAL VHC'S TO BE TRAINED	651	801	957	2409
TOTAL NO VHC'S TRAINED AS AT JULY 1991				581
TOTAL NO VHC'S TO BE TRAINED BY APRIL 1992				450
GRAND TOTAL				3440

The role of the VHC would be strengthened by at least one permanent member of staff on each project.

To impement this strategy there will be the need to publish 24,000, 36,000 and 48,000 health education manuals in 1992-3 ,1993-4 and 1994-5 respectively. The eight existing manuals would be improved and translated into local languages .

* Completed july 1991 - VHC's already trained

6.2.4 Training

That the training of National Service Personnel in the construction of Hand Dug wells be continued with a slightly increased emphasis on business management skills. That we try and secure employment for these trainees in our own and other organisations programmes or in the private sector. A total of thirty trainees per year from National Service Secretariat would be trained as follows.

PROJECT	NO OF TRAINEES			
	1992-3	1993-4	1994-5	TOTAL
Rural Aid	13	13	13	39
Bach	0	0	0	0
NEA	2	2	2	6
ORAP	8	8	8	24
Afram	0	0	0	0
ACDECO	7	7	7	21
TOTAL NSP TO BE TRAINED	30	30	30	90
=====				
TOTAL NO TRAINED AS AT JULY 1991				45
TOTAL NO TO BE TRAINED BY JULY 1992				26
=====				
GRAND TOTAL				161
=====				

We would increase the level of senior and junior staff training and encourage inter project visits as outlined in the evaluation report under recommendations training.

6.2.5 Rural Water Strategy and Action Plan (Government of Ghana)

The rural water strategy and action plan outlines how GWSC could be restructured to absorb a \$40,000,000 line of credit from the World bank.

The strategy advocates the Rural Water Department of Ghana Water and Sewage Corporation becoming a Division with a deputy managing director at its head. There would be separate financial management from GWSC urban water supplies and a decentralised structure.

A team of four made up of two seconded Department of Community Development staff, one Ministry of Health and one GWSC would be formed in each district. This team would be overseen by the Infrastructure and Social Services Committee of the District Assembly. They would draw up a District rural water plan to be approved by the District Assembly before forwarding to the GWSC regional team, here the summation of district plans would constitute the regional plan. A summation of region plans would be the National plan.

The strategy emphasises the role of the private sector and advocates promotion of handpump manufacture - GWSC would be a facilitator rather than an implementor. The communities involvement will be in financing the operation and maintenance of their water supply system and community labour.

Funding would pass through Ministry of Finance and Economic Planning to the Districts after necessary approvals. At the various levels communities would be expected to contribute. The District assembly would contract out the implementation to the private sector.

The proposed new Rural Water Division would require staffing, 120 technical management and planning staff to be financed by government at a cost estimated at £80,000 per annum. These staff would have to be trained. A UNDP funded training programme, currently under experiment at the University of Science and Technology, has been proposed to prepare syllabi and training material to be used in the strategies pilot areas.

It is hoped that donors and NGOs will co-operate with the strategy.

6.2.5.1 Pilot Projects

That the projects we fund be used as pilots for the implementation plan of the Rural Water Strategy and Action Plan where this does not mean imposition on the integrity of the projects themselves. In acceptance of this that we continue to support the idea of local pump manufacture in Ghana and therefore choose our pumps accordingly.

6.2.5.2 District Assemblies

That the projects which we support should work hand in hand with the District assemblies to make the District centred approach to Rural Water deliver a reality.

6.2.6 Strengthening Local Partners

That we continue the strengthening exercise currently underway with both the projects we support and with Isodec. The objective being for WaterAid to act as a monitoring and evaluating body whilst the projects would implement.

That the programme office budget be managed by Isodec who would report to the WaterAid coordinator in Ghana. There would be the need to appoint a Deputy Coordinator who would visit projects regularly to provide technical reports for both the coordinators of Isodec and WaterAid, both of whom would visit projects less regularly than at present.

That WaterAid should continue to strengthen its local partners in management, planning, implementation of plans, monitoring and evaluation. The objective being for the local groups to be able to plan their programs and for the Representative to monitor and evaluate the implementation this would be achieved within the three year programme.

6.2.7 National Service Secretariat.

WaterAid has enjoyed a close working relationship with the Secretariat, this relationship should continue over the three year period by continuing the well supervisor training programme with National Service as the main partner.

New areas of collaboration should be explored and if possible put forward as additional projects to the ones outlined in this strategy. I would therefore recommend that we use the National Service Secretariat project in Kwahu as a pilot with a view to expanding into other Districts.

6.2.8 Technology Choices

Standardisation of technology is critical to the Rural Water Strategy in Ghana I would therefore stress that over the next three years that the projects we support standardise on three technology choices in the construction of the wells. That the lid is standardised allowing any one of the more common pumps to be fitted.

The criteria of technology choice would be:-

- a community preference
- b cost
- c replicability
- d level of participation involved
- e affordability
- f sustainability

6.2.8.1. Wells

That in the process of constructing wells we record the mechanism and make the information available to both Governmental and non Governmental Organisations.

6.2.8.2. pumps

That the pump used on all WaterAid funded shallow wells will be the NIRA AF85 which is thought to be the most suitable shallow well pump available at the moment and where possible it will be purchased from a locally based manufacturer.

That the pump used on all WaterAid funded deep wells will be the Ghana Modified India mark II which is thought to be the most suitable deep well pump available at the moment.

6.2.9 Sanitation

Over the last three years the programme has achieved very little by way of completed toilets but an education programme has been run in environmental sanitation which includes faeces disposal, solid waste disposal, animal waste disposal, and some basic hygiene. This training was conducted in 1991 and has encouraged a great deal of village applications for latrines. Prior to the training a staff workshop was held which made some recommendations concerning the construction of latrines.

- a in the Southern sector the communal toilet should be constructed. there should be a maximum subsidy of one hundred pounds or the cedis equivalent. That this was enough to cover the full cost of an unlined improved pit with ventilation shaft. That if the community wanted a more expensive latrine WaterAid should provide materials up to the maximum level of the subsidy and technical advice should the community wish to contribute additional cash for a more expensive latrine.
- b in the Northern sector that we opt for the mozambique slab for which we would pay and the household would dig and construct the superstructure.

Over the three year period covered by this strategy a budget has been allocated to sanitation at a rate of 5% of the total cost of the wells per annum. This money should be taken up at the rate of demand.

6.2.10. Maintenance

Where pumps are fitted the V.L.O.M. strategy will be followed, this will necessitate developing, monitoring and training systems for village pump maintenance operators.

EVALUATION REPORT

GHANA PROGRAMME JULY 1991

1 INTRODUCTION

As the current three year programme of WaterAids' activities in Ghana will draw to a close at the end of 1991 it was necessary to carry out an evaluation of project performance. It is intended that the information made available by this process will be presented to The Government of Ghana through the GWSC; WaterAid London; Project Management Committees; The National Service Secretariat; The Overseas Development Administration and ISODEC members and funders.

The recommendations and the content of the report will form the basis of a strategy for the next three year WaterAid programme in Ghana.

1.1 STATED OBJECTIVES OF THE EVALUATION

A To review the methods employed by the project management and the funder to achieve safe drinking water through a rural water intervention; specifically, hand dug well construction, health education, training and sanitation. This will be achieved by evaluating performance in :-

- personnel management
- administration
- achieving community participation
- quality control of technical intervention
- health education delivery
- staff development
- training
- and maintenance

B To make recommendations to the project management committees and the funder on strengthening requirements.

1.2 PROJECTS EVALUATED

<i>PROJECT NAME and AREA OF OPERATION</i>	<i>LOCAL PARTNER and STATUS</i>	<i>ACTIVITY</i>
<i>BACH Bawku West</i>	<i>Binaba Area Community Health NGO</i>	<i>hand dug wells health ed income generation</i>
<i>A.C.D.E.C.O. Akwapem South Akwapem North</i>	<i>Akwapem Community Development Committee NGO</i>	<i>hand dug wells health ed well supervisor training</i>
<i>AFRAM HAND DUG WELL Kwahu North</i>	<i>Presbyterian Church of Ghana NGO</i>	<i>hand dug wells health ed well supervisor training</i>
<i>AFRAM BORE HOLE Kwahu North</i>	<i>Catholic Church NGO</i>	<i>pump maintenance</i>
<i>RURALAID Upper Eastern Region</i>	<i>RuralAid NGO</i>	<i>hand dug wells health ed well supervisor training</i>
<i>O.R.A.P. Kwahu South</i>	<i>National Service Secretariat Government</i>	<i>hand dug wells health ed well supervisor training</i>
<i>TRAINING all projects</i>	<i>Isodec and NSS NGO</i>	<i>well supervisor, project management committee and staff training</i>
<i>HEALTH EDUCATION all projects</i>	<i>Isodec NGO</i>	<i>Prepare health education material</i>

1.3 RATIONALE

WaterAid, whilst committed to another three year programme in Ghana, decided that before they took decisions on programme emphasis should have a clear picture of what happens in the projects at the moment and how best these activities could be strengthened.

The questionnaire (appendix 1) designed for the purposes of the evaluation covered: the technical intervention, community participation, health education, training, administration, project management and the relationship with the funder. There were two areas which should have been covered but were omitted; health and safety and sanitation. The first was an oversight and the second was consciously omitted because the projects have not emphasised this aspect of rural water delivery.

Each area examined by the evaluation team has been covered as a section and each project addressed within the section with the exception of health education, administration and relationship with the funder with which more general recommendations have been made.

2 METHODOLOGY

- 2.1 Interviews with:-
- a project management
 - b project supervisor
 - c construction staff
 - d national service personnel
 - e community members

an evaluation form was used to ensure parity

- 2.2 Well site visits:- at approximate 5% of completed wells
- 2.3 Observation by the evaluation team consisting of; Ms Judith Thompson, Isodec; Ms Angela Odonkor, WaterAid and Mr Ron Bannerman, WaterAid.
- 2.4 A meeting with project management and staff at the end of the evaluation process to arrive at conclusions/recommendations.
- 2.5 A total of 150 questionnaires were filled out, five for each community visited and five for staff and National service personnel per project.
- 2.6 Judith thompson and Angela Odonkor conducted the village surveys; Ron Bannerman interviewed the junior staff and National Service Personnel; Judith THompson interviewed the supervisors and the management committees. Each staff interview took between one and a half to two hours. The community interviews lasted for about forty-five minutes.
- 2.7 The questionnaire was subject to interviewer interpretation and in many cases it was necessary to ask a number of follow up questions.

3 TECHNICAL INTERVENTION

3.1 RURAL AID

They use two types of lining method:

- a interlocking blocks 1.3m inner diameter.
- b concrete tube lining 1.3m inner diameter.

Examples of both were looked at and found to be acceptable. After the tube has been constructed to the water table the well is deepened and caisson moulds are dropped. There was no evidence to suggest that the wells run dry but this could be a problem because the number of caissons varies from 1 to 6; some community members reported that the water was not sufficient.

There was evidence of wear on some of the concrete tube wells. Aprons and lids are constructed, although on some wells they were not in place. No pumps had been fitted but the project has proposals for the installation of the Nira af 85, 50 of these pumps are available on the project. Animal troughs are constructed but they are not used during the rainy season and so did not appear to be well maintained ie there were some in which the water was green and mosquitoes were breeding.

The project faces problems in sinking caisson rings; the community members are reluctant to dig into the water and think that a little water is sufficient this is compounded because the project staff have to mould the caisson rings and distribute them to each village site.

The staff requested additional equipment, particularly access to compressor/rock breaking equipment facilities, dewatering sets, additional mould sets, block moulds and hand tools.

The following recommendations were made:-

- a That the animal troughs be redesigned so that they can be easily drained and that water does not collect in them whilst not in use.
- b That the mixture of concrete be carefully monitored to limit wear, at a ratio of 1:4:6 cement: sand: stone
- c That the quality of sand be the best that is available.
- d That the block lining method be encouraged as it is cheaper more replicable and involves more community participation.

- e That at least 6 caissons are put in each well to ensure adequate water supply. Where possible an easier method of caissoning be developed. This can be done using the blocks and iron rods on which they are threaded, iron rods are used as reinforcement to prevent the caisson tube from beveling.
- f That lids be put on each well on completion of the construction process. That these lids be standard and capable of taking a pump should the community request one or not.
- g That a permanent team be put on the deepening of wells and the sinking of caissons.
- h That pumps be installed in those communities which request it and have shown the capacity to maintain by raising a minimum of thirty thousand cedis as a maintenance fund. That maintenance training be provided at village level by the project.
- i That the purchase of additional equipment be considered, there is a need to have the rock breaking facility but we recommend that its use be a last option.

3.2 BACH

They use three types of lining methods:-

- a local stone lining
- b concrete tube lining 0.9m inner diameter.
- c interlocking block method 1.0m inner diameter

In some cases they combine the lining methods, caisson moulds are not dropped. This will present a problem with deepening in the future. Animal troughs are made in some cases, all wells had a lid with a wooden entry hatch and an apron. The 0.9m inner diameter concrete tube is too narrow and so cannot be deepened further, two holes are left between each lined section. These holes leak and could cause contamination. The locally lined wells are also too narrow and it is debatable whether the laterite stone used offers a watertight tube.

Although the interlocking block method would be acceptable too few blocks have been used to make the ring so making the well too narrow. No pumps are fitted.

The project staff requested additional equipment particularly, compressor/rock breaking equipment, mould sets, hand tools and a bedford tipper truck.

Recommendations:-

- a That the lining method should be predominately interlocking blocks save where ground conditions do not allow. The inner diameter be 1.3m and some type of caissoning be employed.*
- b That animal troughs be constructed according to the recommendations made under 3.1 RuralAid.*
- c That the holes on those wells lined with caison rings be filled to prevent contamination.*
- d That the well supervisor of the Bach project spend at least two weeks on the RuralAid project for technical training.*
- e That a method of caissoning the narrow wells be developed. We suggest that this might be possible by making wooden moulds used in the making of culverts, these are narrower and will enter the well tube.*
- f That no additional equipment be purchased until the project has decided one or possibly two standard lining methods.*
- g That all the outstanding work on existing wells be completed before any new wells are constructed. With particular reference to deepening/caissoning.*

3.3 O.R.A.P.

They use one type of lining; a concrete tube 1.3m inner diameter, construct aprons but not animal troughs or washing slabs. Of the wells visited none had lids and the aprons were small. Only one well had caisson rings dropped inside but there was no complaint from the communities that the water was insufficient. No pumps have been fitted and although all the communities spoken too requested one only one had collected the thirty thousand cedis maintenance fee. There was sign of wear on one of the wells visited. The the quality of the concrete could be improved.

The project staff requested additional equipment particularly a compressors/rock breaking equipment, additional mould sets, dewatering equipment, health and safety wear and a Land Rover pickup.

Recommendations

- a That caisson rings be dropped where necessary.
- b That the size of the apron be increased.
- c That all wells constructed be fitted with lids that are standard and could be fitted with a pump should the community request for it and be able to pay the maintenance fee. RuralAid or the programme office can provide the drawings for this lid.
- d That the question of constructing washing labs be considered with the community, probably best done through the initial village meetings or by the health education team during their normal work.
- e That pumps be fitted if the maintenance fee has been deposited in a bank account.
- f That the additional equipment be considered because we felt the project is being hampered by this shortage.

3.4 AFRAM PLAINS HAND DUG WELL PROJECT

They use the standard concrete lining method inner diameter 1.3m insert caisson mould, construct aprons and lids but no washing slab or animal trough. Pumps are fitted as a matter of course because of the exceptional depth of the well. Many of the wells have been constructed through hard rock with excessive compressor use. There was no sign of wear on any well.

recommendations

- a Given the depth of the well and the difficulty and cost of construction we recommend that this project be brought to a close and the remainder of the digging be done using blasting contracted out to the Field engineers of the Ghana Army.
- b That the store room currently sited at Donkorkrom Hospital be rebuilt in Tease for use on the borehole maintenance programme. All other heavy equipment ie moulds etc have been transferred to RuralAid where they are already in use.
- c That the supervisor be transferred to the Kwahu project for a period of six months to train the new supervisor there and work with the National Service Personnel. Should the proposal for new pumps on the Afram Plains go ahead then the supervisor would return to the Plains to continue that work.

3.5 AFRAM PLAINS BORE HOLE MAINTENACE PROJECT

All pump sites visited had washing slabs and the pumps (India mkii) were operational, village level maintenance training had been carried out and the community members who were interviewed were aware of the maintenance procedure. Many community members complained of the frequency of pump failure which is because of corrosion to galvanised below water level parts which have been in place for seven years. Most communities had not paid the initial thirty thousand cedis but had been paying for repairs ie spare parts as breakdowns occurred.

The project supervisor requested a pick-up but the team felt that as the burden of maintenance cost will ultimately fall on the community that this was not advisable.

recommendations

- a That the project be continued with more emphasis on cost recovery from the community and to include the completed hand dug wells.
- b That the existing pumps be replaced/modified to non corrosive materials.
- c That the main transport for the project be a motorbike and the use of a pickup to oversee the proposed pump changes.
- d That the type of changes to be made to the pumps be properly researched before any decision is taken and definitely in consultation with GWSC, Eric Bauman of the World Bank and World Vision, who will also be installing pumps on the Afram Plains in 1992.

3.6 AKWAPEM COMMUNITY DEVELOPMENT COMMITTEE

They use the standard concrete tube lining inner diameter 1.3m, they construct aprons and washing slabs, fit a lid and a pump (India mkii). The community is asked to deposit a maintenance fund of thirty thousand cedis in a bank account. The community members interviewed were aware that they had to pay for maintenance but were not all clear who had to organise this.

There was no sign of wear on any of the wells visited and the quality of the concrete was exceptional. Caissons are put in every well and apart from those which cannot be deepened. There was no complaint of insufficient water.

The project staff requested additional equipment particularly a compressor/rock breaking equipment, dewatering sets and additional mould sets.

recommendations

- a That this project be used as a training ground in quality control of concrete and construction, their wells are built to last.
- b That the project develop a more active pump maintenance strategy and insure that community members are educated in the maintenance procedure.
- c In view of (b) we further recommend that the project supervisor spend a few days on the Afram Plains to see how the village level operation and maintenance is being worked out there.
- d This project has worked out its construction process well and is therefor ready for expansion we would recommend the additional equipment.

4 COMMUNITY PARTICIPATION

4.1 RURAL AID

The evaluation shows each community provides the labour, sand and stone for their well. Where blocks are used the community moulds them and a contracted mason previously trained by the project lines from the watertable up, the community provides the labour to drop the blocks into the well for the mason.

Where the concrete tube lining is used the project well teams line with labour support from the community members. Women usually carry the sand and the gravel and are responsible for providing the hospitality.

The community leaders monitor and mobilise the community members not project staff. It is not always a traditional leader who fills this role. There was a well committee at each community visited but they were not always active. The first contact with the community by the project is the result of an application from the community itself.

After the application has been received the programme manager or the supervisor visits the community and a meeting is held. After decision has been taken the community are asked to choose a site with some basic advice from the supervisor who returns later to see the siting and advise if it is not in the best place. The tools are signed over to the community and the well is set and digging begins. The supervisor visits to check on progress and to ensure adherence to standards, particularly the diameter of the tube. When the community has reached the watertable they inform the project staff and lining begins

When the block lining is being used the blocks are moulded whilst the digging is going on.

recommendations

- a That the role of the well committee at village level be strengthened by insisting that it exists and by paying more attention to its role during community meetings.
- b That the community take a more active role in the control of cement distribution ie that cement be handed over to the village well committee who would sign for it and therefor control its use.
- c That the block lining method be encouraged as this increases community participation and therefor supposedly community ownership.

- d. That the community be made aware of their role on routine maintenance of the well site and surroundings. This could be taken up by the health education team which have more communication with the community.

4.2 BACH

BACH employs a similar process in achieving community participation to Ruralaid but have strengthened the role of the well committee. In the interviews conducted it was clear that the community had a sense of ownership and were aware of the existence of the well committee and what it should do.

recommendations

none

4.3 KWAHU

Again the process is similar to both RuralAid and Bach with an addition of a fining system if individual community members do not turn out for work. The fine is imposed and monitored by the traditional leaders. In some cases the project had approached the community and encouraged well construction. It was assumed that this would be expected in the initial stages of a project.

recommendations

- a. That the fining system should not be imposed unless absolutely necessary. It could be prevented by a better explanation of the project to community members at the initial stages of the project.
- b. That the role of the well committee be strengthened as in 4.1 and 4.2.

4.4 AKWAPEM COMMUNITY DEVELOPMENT COMMITTEE

Community participation has been difficult to achieve in this area so the project has developed a series of quality indicators which it uses before starting any construction work. All the sand and gravel must be at the well site before digging can commence; a well committee must be in place and the members introduced to the community with their role outlined, this does not always happen. The well committees are very active in the after care and management of the well. Each well visited had a different method of control. Some communities had a specific time for fetching water and an individual who was paid to pump. Others charged at the well head per bucket. The cash raised is used for the maintenance fund.

recommendations.

- a The well committee should be trained in basic pump maintenance which should improve the communities ability to participate in pump care. It is clear that there was a dependency on the project staff to deal with maintenance.

4.5 AFRAM PLAINS

There is little to say here as the hand dug well project will come to a close and the community participation on the pump maintenance project is the maintenance itself. This is clearly going in the correct direction.

5 HEALTH EDUCATION

The evaluation team felt that health education, training and administration should not be dealt with on a project by project basis as the recommendations were more general.

As a result of the information gained from staff and community members the following recommendation are being made.

- a The impact of the health education although felt at community level could be strengthened in the following ways:-
 - i increase the number of village health coordinators (VHC) from 2 to 3. the additional person would be a woman. This is the result of our finding that women feel less secure when organising community meetings, we felt that having a colleague would help.
 - ii That the length of the training be increased from 2 to 3 days to allow time for working on training techniques and the role of the VHC in the community.
 - iii That we do not maintain the centralised health education budget if the projects manage the budget for the training costs as they do for the well construction.
 - iv That more evaluation of the Health education be done by the health education programme assistant in the first instance but later by the project staff themselves.
 - v That the health education assistants role will be to develop training materials and give training in its use rather than be present for VHC's training programs.
 - vi That each project has a member of staff responsible for the health education programme and that they visit VHC's regularly to provide additional support.
 - vii That each project liaise more closely with the District medical authorities and use their staff when possible.

b No junior staff member has received any health education training apart from those National Service Personnel who we have trained and subsequently employed, we therefore recommend that this be done as a priority as the junior staff are in communities regularly and can pass health education messages on informally.

6 TRAINING

recommendations

- a that the National Service Personnel well supervisor training be continued even if not all the personnel find jobs in well construction. The individual trainees have clearly benefited from the experience. We would recommend the following improvements
- i The project staff deal directly with the regional or District Coordinators for NSP placements.
 - ii That each project organise an orientation for the personnel at the beginning of the service year. This should be uniform so that all personnel have the same information and conditions of service within the projects. The orientation should be done in cooperation with National Service and the WaterAid Training assistant.
 - ii That the training programme at Papua be reorientated to include some business management skills to equip the personnel for possible business opportunities in the rural water sector.
- b The interviews with staff showed we had not offered any training for junior staff. We recommend that the training department draw up a training policy for the organisation that it be discussed with the projects and the imbalance between senior and junior staff on training issues be addressed.
- c That the training department should organise inter project visits not just to exchange ideas but to bring the strength of one project to another. We would recommend that the Rural Aid and Kwahu construction teams visit the Akropong project to look at the quality of wells and the apron construction. The Akwapem and Kwahu staff would visit to The Upper East to see the block lining method with a view to reviewing its possible use in their areas. The logistics of these trips would be worked out by the project supervisors but dates and information dissemination etc would be organised by the programme office.
- d We recommend that trainees be invited from other institutions to participate in the well supervisor training programme but that any organisation, apart from National Service, wishing to take this up would have to be responsible for the trainees living allowances etc.

- e From interviews it was obvious we had not provided enough resource material for the projects and we would therefore recommend that a resource library be set up in the Accra office and a book lending system be developed. The training assistant would organise this. Each project should be given subscription to periodicals etc.

- f That National Service Trainees who have been trained on projects have priority when recruitment of new staff by the projects is necessary. Unless the project management felt that the NSP were totally unsuitable for personal reasons in which case we would further recommend that such a persons training be terminated in consultation with National Service Secretariat.

7 ADMINISTRATION

As well as asking the administrative questions the systems were observed by Ron Bannerman.

recommendations

- a Stock control systems have to be improved and use of control cards strictly adhered to, a discussion on this should be held at the regular staff meetings, with particular reference to cement.
- b All information should be entered in the vehicle logs at the time of travel.
- c Filing systems should to be developed on each project.
- e A payment voucher system for staff remuneration should be introduced on each project.
- f The reporting system should be reviewed as it is cumbersome
- g Those projects who have offices should use them as their main place of work.

8 PROJECT MANAGEMENT

8.1 RURAL AID

RuralAid has a very young but strong management committee who are now providing the kind of support that the project staff require. There is a full committee of eleven, usually 7 or 8 attend meetings. There is a standing committee and a technical committee, the project supervisor is a member of both these committees which meet regularly to review work progress; work programs and technical problems.

The project manager is well motivated, popular and good at motivating his staff. In the survey it was clear that all members of staff interviewed understood their terms and conditions of employment the disciplinary and grievance procedure. Some dissatisfaction about letters of appointment was expressed. All staff members interviewed had attended staff meetings and it was generally felt that these meetings were a good forum to discuss both personal and work programs. The health education supervisor felt that she needed more support from the supervisor.

Work programs are prepared by the programme supervisor and work is allocated to the well construction teams. The health education supervisor does her own work programs and presents them to the programme supervisor for approval.

Those National Service Personnel who stayed on the project were satisfied with the way they had been treated and felt that the training they had received was useful. All staff members interviewed felt that they had a skill which could be used even if WaterAid were to pull out.

The project has developed an informal staff structure. In many of the Districts in which the project works the daily supervision has been handed over to various Government Departments. In Bongo District the Department of Community Development is responsible for implementation; in Sandema District the National Mobilization is responsible for implementation; in Bawku West there is a local teacher who is responsible for mobilization and supervision. This system seems to work well and is a major contributing factor to the general success of the project.

recommendations

- a That the programme manager offer more support to the health education supervisor.
- b That the management committee register with The Department of Social welfare as an Non Governmental Organisation.

- c That appointment letters are given out promptly after probation etc.
- d That the programme supervisor visit each well site at least four times in the year to familiarise himself fully with the on going work.

8.2 BACH

The project has a management committee and two seconded staff from the Ministry of Education. The wells supervisor is not fully seconded and therefor not fully employed. The well liners work on contract and were not interviewed. The management committee could not be contacted.

Project management is particularly weak which is partly because a recent VSO volunteer has left and the replacement is yet to arrive. There is no obvious line management system and therefor very little control of equipment etc. There is the potential for this to be strengthened.

recommendations

- a Proper terms and conditions of employment be drawn up by the project management committee outlining grievance and disciplinary procedures.
- b A funder be approached to provide training in team building and project management
- c That a full time well supervisor be appointed if the project intends to continue constructing wells.

8.3 O.R.A.P.

Initially the project was under the management on The National Service Secretariat but recently there has been a move to develop a local management committee. The committee has been inaugurated and constitutes six local personalities, including the National Service District coordinator.

From the interviews it is clear that many management systems are not understood, this is to be expected since the project is in its early stages. The management committee members are uncertain of their role and so will need to be strengthened.

The project staff which are National Service Personnel who have undergone the well supervisor training are competent in their jobs but would probably benefit from some additional training on the job. This could be given by the Afram supervisor.

The interviews highlighted the fact that the project is a transitional stage ie it was not clear that the project management committee would ultimately become the employer of the staff.

Recommendations

- a That National Service Secretariat continue to act as a support for the new committee.
- b That WaterAid provides training for the management committee and the project staff in team building, the practise of supervision and project management.
- c That permanent staff, two , be employed by the management committee as soon as the service year is over.
- d That the management committee draws up a draft constitution to cover its' activities, this would be done with assistance from WaterAid and National Service Secretariat if the committee felt it necessary.
- e That National Service are asked to continue to support the project with personnel.

8.4 AKWAPEM COMMUNITY DEVELOPMENT COMMITTEE

As with the other projects there is a management committee in place made up of eminent local personalities. The relationship between the committee and the staff is very clear as is the relationship between the supervisor and the junior staff. The National Service Personnel have worked very hard and are highly motivated. The survey did not throw up any surprises and the evaluation team felt that there were no need to make any recommendations.

8.5 AFRAM PLAINS

As the hand dug well programme is coming to an end and the hand pump maintenance project will be under the care of the Catholic Church the evaluation team had no recommendations to make on the management of this programme.

9 RELATIONSHIP WITH THE FUNDER

From the evaluation it is clear that all the projects feel WaterAid is too heavily involved in the planning and implementation at project level and that we should be working towards simple monitoring, evaluation and funding. It was also clear that they found visits from the programme office useful and that they had a distinct purpose. All the projects felt that the administration was excessive.

recommendations

- a Project management committees and senior staff have access to training in
 - 1 planning and development
 - 2 project management
 - 3 financial management
 - 4 development and implementation of their plans
 - 5 supervision

- b That the administrative systems be reviewed at a senior staff meeting and compromises made

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