halfyearly report
july 1989

tamale
archdiocesan
development
secretariat

village water
reservoirs project
tamale
ghana

cebemo
the netherlands

sawa
tamale, ghana

sawa
Schoolplein 7
3581 px Utrecht
the Netherlands

Table of contents

1. Introduction

In this half-yearly progress report a review will be given of the programme (chapter 2) and the activities (chapter 3) of the Animation Section of the project "Village Water Reservoirs" of the Archdiocese of Tamale in the period January - June 1989. Chapter 4 describes the internal organization of the section and the relations with the Technical section and the various external organisations.
Finally chapter 5 describes the planned programme and activities for the coming half year.

(Tineke Murre)

2. Description of the Programme of the Animation Section in the period January - June, 1989

In order to serve the main purpose of the animation section, i.e., communities in which the project is building reservoirs should actually use and maintain the improved facility (ies) in a proper way, three main tasks were identified:

1. to involve all parts of the community in the dam building process in order to try to make the water-facility as convenient and as appropriate as possible.

2. to involve all parts of the community in a health education programme to improve the quality of the water the community is using and to improve the hygienic conditions in the village in general.

3. to develop a maintenance and monitoring programme to guarantee a continued functioning of the facility and to be able to evaluate the actual use and impact of the facility and health education programme.

Below follows a brief justification and explanation of the first two tasks and a description of the methods used. The monitoring and maintenance programme has yet to be developed. Proposed ideas to start this programme are described in paragraph 5.

- Involvement of the community in the dam building process.

Past experiences show that a new waterfacility will be more easily accepted if the facility is socio-cultural and functionally appropriate to its users. To state only a few examples: "Safe sources for drinking water may be rejected because of taste or color problems..... Water may not be acceptable for washing clothes because it does not give a good lather or because it stains the cloths ... long distance (...) lengthy waiting times and unreliable or insufficient water supply can also result in continued use of unhygienic traditional water sources" (IRC TP 27 1988: 24) Involvement of the villagers (esp. of the managers of water, i.e. women) in the design of the water facility may overcome these problems.

Methods used:

- Social survey. The social survey provides a lot of basic information about the community. It contains questions about the water-use pattern, preferences of people concerning water, occurrence of guinea-worm and other diseases and about the organisational structure of the village. The social survey also serves as a means to involve the villagers (esp women) in the preparation phase of the project as pr rences concerning the location of the reservoirs and willingness to participate in a health education programme etc. are discussed privately. The animation team gets some general idea about existing opinions in the village to which they can refer in later (village) discussions.

- Discussions about technical alternatives and organisation in the village. Depending on the technical possibilities and the organisational structure of the village, items are discussed with the whole village, with the various sections of the village or with women and men seperately.
These items may include: site - selection, type of filtersystem type of wells or tank (height, aprons, gutters, covers, re-use of spill-water), fencing of the reservoir, separate cattle-reservoir, improvement of local hand-dug wells, how to start an organisation in the village, organisation of the free-labour during construction, and other needs. Decisions about the ultimate choices are taken by all parts of the community (with special reference to the actual water carriers) and the project.

- Health Education

Appropriateness of the new facility and proper use of the facility (as one of the aims of health education) are closely intertwined. Key factors in the adoption of new practices seem to be convenience ease and accessibility (Boot 1985:12). The animation team tries to build upon the information obtained by the survey and previous visits about prevailing practices, beliefs and experiences in the villages. The team intermingles this information with the discussion about the appropriateness of the facility in the health education programme. "What type of water lifting system is most feasible" and "how and where will the villagers do their laundry" are possible subjects.

The link between prevailing practices, beliefs and experiences and the relation between water and diseases however is not easy to make. Villagers believe that diseases are caused by supernatural forces, a subject about which they'll not easily and freely talk.

It is one of the purposes of the project to develop a close co-operation between the primary health care activities of the Archdiocese and the Ministry of Health and the project. It was expected that most of the health activities in the villages would be the responsibility of the village health workers (V H W) and traditional birth attendants (T.B.A.) supported by these health institutions (SAWA 1987:11). Unfortunately this close co-operation proved not to be possible for the time being. The main reasons were:

- last year those communities that requested for a reservoir and were most in need of water (distance) had not yet attended the p.h.c. programme and consequently did not have v.h.w's and t.b.a's. They were not visited by any community health nurses except for the immunization campaigns.
- last year the primary health care section of the ministry of health and the health team of the Catholic Church neither had the manpower nor the means (transport) available to start a health programme in the villages in which the project worked. The health team of the Catholic Church was in a transition period to change their mobile clinic programme into a primary health care programme. Tolon Health Post (responsible for the area in which the project worked last year) also just started their p.h.c. programme.

In consultation with the responsible district medical officer of the Ministry of Health and the p.h.c. coordinator of the Archdiocese, the Animation section decided that the main purposes of the health education programme for the year 1989-1990 should be:

- to get the villagers interested in health discussions and the p.h.c programme so that the villagers will select some people to attend the course to become vhw's and tba's.
- to discuss with the villagers about some major problems concerning water quality in a pleasant and understandable way (guinea-worm, ways the water can get polluted)

- to do this with the help of the project itself but to try to get and keep a link with the existing health institutions.

The animation section developed (and is developing) 6 or 7 health talks. Below follows a brief content of the talks. The sequence of the talks sometimes changes.

(1) Slide show and discussion about guinea-worm.

This slide show was developed by World Neighbours in a village in the North of Togo. This area is situated near the project area. The outlook and ways of behaviour shown on the slides are quite comparable to the Dagomba lifestyle. The slide show comprises of the following topics:

- The community, their sources of water and the problem of guinea-worm.
- The causes of guinea-worm according to traditional beliefs and the scientific explanation.
- The consequences of guinea-worm.
- Traditional methods of treatment
- Methods of prevention of guinea-worm.

The slides are shown in small groups. Men and women often attend separate presentations to give more people the opportunity to talk about the pictures.
The audience looks at the pictures and discusses what is seen. The animation team tries to encourage the discussion by asking basic questions as 'what do you see?, 'what will happen if the people drink this water?, 'what is the difference between pond and wellwater?, 'can people attend to other tasks when they have guinea-worm? etc.

(2) Story and song about guinea-worm.

The story is an adapted version of a local narrative and deals with the life of a man and his two wives, one wife filters her water, the other one doesn't do that and attributes the fact that she and her children get guinea-worm to jealousy of the other wife. The story closes with a song about the prevention of guinea-worm, sung on a popular local tune. The story is told in small groups and the audience is encouraged to give some stories before the animation team tells their narrative.
Story telling (many include songs) is very popular among Dagombas. Some stories narrate the roots of common facts of life.

(3) Roleplay about guinea-worm, performed by community health nurses from Tamale district or by villagers of one of the communities in which the project is working.
The roleplay deals with two families who are suffering from guinea-worm. One family is quite willing to accept the idea of filtering of water to prevent guinea-worm and sees its results. They try to convince the other family. The play shows the difficulties in convincing fellow-villagers and emphasizes the need for filtering all drinking water (water that is drunk whilst working in the farm, whilst visiting neighbours). Reasons why people don't believe guinea-worm comes from water and the time guinea-worm takes to develop in the body are also subjects that get their turn. The role play is first performed by some community health nurses in one village. If the village is interested in acting out the play in other villages, the community health nurses visit the village several times to help them prepare the roleplay.

(4) Talk by the health educator of the health post about the primary health care programme.
Many villagers never heard about the phc programme before and don't know what vhw's and tba's do and how a village can gain by sending people to the programme. The health educator tells about the course, what vhw's and tba's learn and do, the benefits for the village, the way the village can stimulate and encourage the selected people, the duration of the course etc.

(5-7) Discussions about how water can be polluted, what can be done to prevent this and the relation between water and diseases (still in preparation). The animation team tries to discover what villagers see as the main reasons of pollution of water and what villagers are willing to do to prevent this.
These discussions are linked with the possible design of the water facility and eventual additional facilities (e.g. improved hand-dug wells, soak-away pits).
In one village a slide show was made about various places to wash and practices in fetching water.

3. Activities in the villages

In this paragraph a summary and brief comment is given of the activities performed by the animation section in each village in the period January-June 1989. The villages are clustered according to the constructed reservoirs. Those readers who want a more elaborate description and discussion of these activities and particulars about the construction are referred to the watersupply reports of each village. (in preparation)

3.1 Gbirimani and Tibogu

Population 1987: 1650 (source: population census 1984)
Technical solution: one waterreservoir with sloping filter system with sand-trench and wells, one cattledam, 7 'new' type hand-dug wells in Gbirimani-village.

Gbirimani

Activities:

- slideshow and discussion about guinea-worm
- story and song about guinea-worm
- discussions about the improvement of hand-dug wells and the location of these wells, filtersystem, location of wells near dam, election of a dam maintenance committee, fencing, separate cattledam, p.h.c. activities.
- Preparation of a slideshow about the way the water can be polluted.
- training of two boys to make the new type hand-dug well.

Comments:

After some problems at the end of December concerning the way the leaders of the village communicated with ther fellow villagers, it was decided that the village would be divided into five groups. Each group elected their male and female spokes (wo)man, who are now, - together with the traditional leaders: chief, chairman and "magasia" - the primary contactpersons in the village. The animation team feels that since that time more people in the village are involved in and informed about the project. Most villagers reacted very positively to the idea of improving the watersources of the wet season.

Tibogu

Activities:

- slide show and discussion about guinea-worm
- story and song about guinea-worm.
- discussion about waterpollution.
- talk about the primary health care programme by Tolon health educator.
- talk about women's organisations and economic activities by a representative of the "National Council on Women and Development."
- formation of a women's organisation of sheanut pickers.
- discussion about the improvement of traditional hand-dug wells, the accessibility of the dam, location of wells near dam, fencing, separate cattle dam, and p.h.c. activities.

Comments:

Unfortunately no new type hand-dug wells could be dug because of the unsuitability of the soil: The hand-dug wells will easily collapse. Discussions about the improvement of the path from the village to the reservoir amounted to nothing. Villagers seemed interested until they heard they had to contribute in labour and cash.

The leaders in this village seem not to be able to organize the villagers in an effective way and there is some friction among the various sections in the village. The villagers are not uncooperative; they're just not organized.

During the construction of the reservoir, the cooperation of the villagers was not always very good. Gbirimani and Tibogu people divided themselves into three groups who worked once every three days. However it was difficult to come out in big numbers every third day for quite some time.

3.2 Dimabi:

Dimabi consists of three villages: Naayili (Yipala), Dabogni and Yekura.

Population 1987: 1700 (source population census 1984)

Technical solution: one waterreservoir with a kind of sand filter (exact design still to be decided) working on gravity, water to be collected from taps and one catllereservoir.

Activities in all three villages:

- slideshow and discussion about guinea-worm
- story and song about guinea-worm
- discussions about the location of the dam, separate cattledam, fencing, type of water fetching system (tank or wells), separate taps/wells for each village, organisation in the village, primary health care programme.
- formation of a damcommittee.

Other activities:

Dimabi - Dabogni

- Talk by a representative of the National Council on Women and Development about women's organisations and economic activities.
- formation of a women's organization to pick sheanuts and to explore a sheanut butter processing machine.
- talk by Tolon health educator about the phc programme.

Dimabi-Yekura

- social survey
- talk by Tolon health educator about the phc programme.

After many discussions about the location of the reservoir, the Naayili men and Dabogni men and women seemed to be in favour of the old dam site. However Naayili women and Yekura women and men seemed to prefer the 'new' location (in the middle of the three villages). A final solution was found after the technical team did some experiments at the 'new' location. Everybody could actually see that water could be stored there and that the water didn't seep into the ground as many people thought it would do. Yekura people first hesitated to join the dambuilding efforts because of chieftancy problems between their village and Dabogni and Naayili. Another reason was that the "old" site was too far from their village. The decision to locate the dam between the three villages encouraged them to join. The old dam: Meanwhile, the old dam is improved and will serve as a cattle place.

All three villages cooperated very well during construction. However since the chief of Dimabi died last month and the contest for succession will soon start there is a question of whether this cooperation will remain.

3.3 Aseiyili and Adumbliyili

Population 1987: 530 (source: population census 1984)
Technical solution: two small reservoirs of the dug-out type with a well, connected by a pipe and floating intake (no filtersystem), one cattlereservoir.

Activities in both villages

- social survey
- discussions about the location of the reservoirs, separate cattle dam, height of well, type of wellcover and spill water solution, fencing, primary health care programme, type of bucket
- slideshow and discussion about guinea-worm.
- story and song about guinea-worm.
- roleplay about guinea- worm.
  Six community health nurses from Tamale performed the role play in Aseiyili. They trained six Aseiyili women to act out the drama. After some repetitions the Aseiyili actors performed the play in Adumbliyili.
- talk by Tolon health educator about the phc programme.
  Both villages decided to select vhw's and tba's to attend the course of Tolon health post at Kasullyili.
  The course started in May.

Cooperation during the whole programme was very good in both villages. Both villages are small and both have their traditional leaders who are capable of organizing the villagers. Since it was not possible to construct a simple filtersystem last dry season, the discussions about possible solutions are postponed until next dry season.

3.4 Garizigu, Shigu and Chagayili

Population 1988: 8419 (source: population census 1984)
Technical solution: not yet decided.

Activities:
Social survey.

3.5 Buyili

Population 1987: 208 (source: population census 1984)
Technical solution: not yet decided.
Buyili has been selected for a detailed technical and social

survey in the selection round of February.

Activities:

- social survey
- slideshow and discussion about guinea-worm.

3.6 Yong Dakpmeyili

Population 1988: 1195 (source: population census 1984)
Technical solution: not yet decided.

Activities:

- social survey.

3.7 Chirifoyili area

Population Gbambaya and Kpenayili 1987:932 (source: pop. census 1
Technical solution: one big reservoir with infiltration galleries and wells for 10 surrounding villages.

Activities in Gbambaya and Kpenayili

- slideshow and discussion about guinea-worm.

4. Internal organization and external relations

Paragraph 4.1 describes the available personnel, means of transport and equipment, followed by a brief justification of plans to extend the section.
Paragraph 4.2 deals with the relations between the animation and the technical section. Finally a review of the contacts with other organizations is given in section 4.3.

4.1 Internal organization

Personnel

In the period January - June '89 the animation section consisted of the following members:
Mrs. S. Bidi
Mr. Y.A. Ayikade (since March)
Mrs. T. Murre.

Equipment

In March the team acquired its own slides projector, a converter and some filmstrips about water and health and about guinea- worm. In June a taperecorder was bought. The advantage of recording some of the discussions in the village is that more information can be grasped since it is extremely difficult to write down all remarks and comments in the heat of a discussion.

Transport

The team has one car and one off-the-road Motorbike at its disposal.

Expansion of the animation section

In the report of the monitoring mission '89, conducted by SAWA, it was recommended to enlarge the extension department in personnel as well as in transport facilities to make it possible for the extension section to cope with the future production of reservoirs by the project. In future years, a production of some ten small dams seems realistic (Dermijn 1989:10). This expansion is necessary to achieve one of the objectives of the project:

"the setting-up of an animation, training and educational programme to ensure a maximum participation of the people in the preparation, planning, construction, management and maintenance of the dam, with the ultimate aim of the feeling that the reservoir is the result of their own efforts" (Dermijn 1989:10).

4.2 Relation between Technical and Animation Section

Last year the work schemes of the technical and animation sectio did not always fit into each other mainly due to the facts that:

- the animation team still had to cope with the arrears caused by the late start of the department.
- the technical team lost its only senior teammember and Mr. A. Kuypers had to divide his time between coordination activities and his technical work until the new project manager took over at the end of May.

This resulted in a situation in which it was often not possible to plan activities and discussions in the village in a proper way.

Both sections discussed a lot about the various possibilities to design a workscheme that will do justice to the requirements of both sections. This is not easy.
The technical team needs time between the technical surveys and the start of the construction of the reservoirs to analyse survey results and make designs. The technical surveys should be carried out in the dry season while the analysis and design should preferably be done in the wet season; a lean period for the technical section. Once a design is made and construction starts it is most efficient to go on with the work and to be able to use the equipment as fast as possible in the next villag
The animation team should start her surveys in a village before the technical surveys are carried out to be able to include community wishes about location and type of technology into the technical survey. To start discussions about technical alternatives the animation team should know whether certain alternatives are technically feasible. A final decision about this can sometimes only be made after the analysis of the technical survey. For the animation section it is easier not to have a long time interval between the surveys, health education programme and the start of the construction of the reservoir.

The purpose of the social survey is not only to get information about the villages, but also to gain confidence from the villagers and to start the discussion about the wishes of the community.
The health education should not start too long before the implementation as it is very difficult to talk about certain hygienic improvements as actually little can be done to improve the situation. It is easier to talk about these things as people see something happening. See for a more elaborate discussion of this the report "Elaboration of project objectives" (Kuypers and Murre 1989:22-23).

For the time being, it was decided to experiment with several schemes. Since it was recommended to slow down the project in '89 - '90 for both sections to cope with their lack of personnel and to be able to deliver proper work, the above mentioned problems will be less severe next dry season. It was also decided to prepare a scheme to connect and interrelate the activities of the technical and animation team, to be able to plan the necessary activities of both sections in each village.

4.3 Contacts with other organizations/institutions

The organizations/institutions the animation section most frequently contacted are:

1. Health Institutions

- p.h.c. unit of the Catholic Church. The head of this p.h.c. programme is member of the advising board of the project.
- Ministry of health
- Community health nurses, Tamale
- Tolon health post
- Christian Mother's Association.

For a discussion about the relations with the first four mentioned see page 4.
Recently contacts were made with the CMA. They work in Gariziegu and Shigu. Discussions started about the possibilities to do some health talks together.

2. Women's organizations

- National Council on Women and Development.
  Three villages expressed their interest in setting-up women's groups to start some economic activities.
  The animation team contacted the National Council on Women and Development who visited the villages to explain its programmes.
  Women groups in two villages started some economic activities.
  First experiences show that it is difficult for the villagers to cope with the different approaches of the two different projects. One of the two villages expressed the wish to slow down some activities, because it was not possible for them to do many new things at a time.
- Women and Development Programme of the Catholic Church:
  Since this programme was recently iniated no close relations have been developed yet.

5. Proposed programme for the period July - December 1989

In this paragraph a brief review of the plans for the July - December 1989 will be given.

Since the project will not yet develop her full speed of dambuilding next dry season, this will give the animation section the possibility to gather more basic information about the villages - their organisation, habits, customs and views about water. The s ocial survey will be adapted to this aim. Apart from that informal interviews will be conducted with key-informants (teachers, opinion leaders) to gain more insight into views and practices concerning health and hygiene.

To enlarge the possibility of making village based decisions about appropriate facilities the project will prepare a step-to-step scheme in which all decision moments concerning the design (to start with) will be described. The animation team will also employ one or two persons who will visit the village each day during construction. It is expected that this will improve the communication between the technical and social sections. Since some reservoirs have now been constructed, it will also be possible to visualize certain solutions to facilitate choices. Villagers can exchange experiences as well. Depending on the technical possibilities and the reactions of villages, the project will set up some pilot filter system projects. To gain insight into the functional and social appropriateness of these filtersystems a close guidance will be necessary.
If the investigations of the water quality of the new type hand-dug well prove satisfactory, the project will encourage the villagers to build these type of wells.

The animation team aims at developing her health talks programme. If possible, the team will invite the Catholic Church health unit, the health posts and/or teachers, tba's and vhw's to take part. Discussions about the possibilities to come to a closer cooperation between the various health institutions and the project have already started.

In the next half year a maintenance programme will be set up. The idea is to have a training programme for each village maintenance committee.
The training will consist of environmental hygiene elements and technical skills, and will be developed in cooperation with the various health institutions, the selected communities and all sections of the project.
At the same time investigations about local ways of maintaining (bicycles, mills) will start.

To be able to gain insight into the actual use and appropriateness of the improved water facilities and the impact of the health education programme, the team will develop a monitoring system:
Possible ways to assess the proper use of the facility and the impact of the health education programme are, for example;

1. observation and short surveys,
   informal interviews in the village
   (do they really use the facility in a proper way?
   how do they handle their water?)
2. quantitative data should be collected about the amount of guinea-worm cases.
   The waterquality in old and new wells, reservoirs and compounds can be investigated.
3. the amount of villages that have sent people to the phc programme

In a later phase this monitoring programme should be adapted.

To be able to develop and implement all these activities the animation section wants to employ at least three extra members. The intention is to form two teams who will do the preparation and monitoring work. They'll also take part in the health education and maintenance programmes. The workload concerned with these last programmes will depend on the discussions with and the availability of health personnel (including vhw's and tba's) from the various health institutions which is difficult to estimate at this moment.
The fifth person will be charged with communication between the technical team and the villagers during construction. He/she will, if necessary, help with the organisation of the free

labour of the villagers and will closely monitor the need to discuss further particulars concerning several alternative design solutions with the villagers.
Due to the fact that in the year '89 - '90 many activities still have to be developed: the project is still searching for the best ways to involve the communities in the dambuilding process. Also, the project will advocate a health education programme emphasizing dialogue, adaptation of programme contents and methods to the groups concerned and a continued monitoring of the project results. To improve the animation programme, high demands will be placed on the skills of the staff. Therefore it i recommended to employ two senior staff members.

Scheme 5.1 gives a review of the planned activities in the various villages in the period July - December 1989.

Scheme 5.1 : Planned activities

Village	Prepation phase Social survey	discus-sions	health educt.	mainte-nance progrm.	Construction reser-voir	filt-er	monitorin programme
Gbirimani			X	X			X
Tibogu			X	X			X
Dimabi		X	X	X		X	
Aseiyili		X	X	X		X	X
Adumbliyili		X	X	X		X	X
Garizlegu		X	X		(X)	(X)	
Shigu		X	X		(X)	(X)	
Chagayili		X	X		(X)	(X)	
Buyili		X	X				
Yong-Dakp-emiyili	X	X	X				
Pakyeyili	X	X	X				
Nayram	X	X	X				
Cheshe	X						

(X) or in January - February 1990.

Bibliography

Boot M.	1985	"Making the links" Guidelines for hygiene educatio in community water supply and sanitation. Den Haag, IRC.
Dermijn S.	1989	Monitoring mission 1989 Utrecht, SAWA.
IRC TP 27 Burgers, L, Boot M C.V. Wijk-Sijbesma	1988	Hygeine education in water supp and sanitation programmes. Den Haag. IRC.
Kuypers A. & T. Murre	1989	Elaboration of project objectives (draft)
Population census	1984	
Sawa	1987	Rural watersupply in the Archdiocese of Tamale, Ghana Utrecht, SAWA.