

Government of Sudan
Ministry of Energy and Mines
National Corporation for Rural Water Development
Khartoum.

Government of The Netherlands
Directorate General for International Cooperation
TNO-DGV Institute of Applied Geoscience
Delft.

Water resources
assessment and
development project in
the Sudan
(WADS)

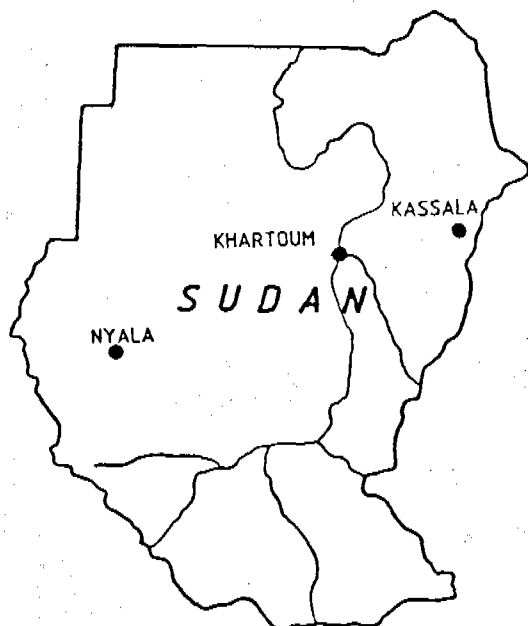


**Report of TA
to the Village Project Section
of the VWS programme
in Southern Darfur Province
October 3^d till December 20th 1988.**

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1. DESCRIPTION OF THE PROJECT

1.1 INTRODUCTION

The Water Resources Assessment and Development Project in the Sudan (WADS) is a project which started in 1986 as a follow up of a project, WAPS, which started in 1979.

The project is a cooperation programme between the Sudanese National Corporation for Development of Rural Water Resources (NCDRWR) and the Netherlands Institute of Applied Geoscience (TNO - DGV). The authorities involved are the Sudanese Ministry of Irrigation and the Directorate General for International Cooperation of the Netherlands Ministry of Foreign Affairs.

The objectives of the WADS project are:

- Village Water Supply: to develop and implement guidelines for Village Water Supply programmes, including the development of sustainable maintenance systems;
- Water Resources Management: to contribute to water exploration and development planning nationally and regionally, including the establishment of a national information centre on water related data;
- Training.

The project is composed of two major components:

- WRM activities in Khartoum, Kassala and Southern Darfur;
- Village Water Supply activities in Southern Darfur.

This report concerns the village water supply activities in Southern Darfur only, and concentrates on the project section which is called "Village Project Section", in the town of Nyala.

WADS Nyala

The Nyala based project is directed by a Project Manager, assisted by an expatriate Chief Technical Adviser. The activities are divided between the Management and Administration Department and the Technical Department. To the first department belong, among others, the Groundwater Exploration Section, the Village Project Section and the Well Construction Section (see Inception Report Febr. 1988, annex 6). These sections cooperate closely in matters concerning "Village Water Supply". The technology applied by the project to supply villages with water, consists of a hand dug, shallow or telescopic, open well of about 15 to 25 meters deep. The well is lined by concrete rings and/or masoned bricks, and is provided with an elevated slab, a drainage canal, and a surrounding fence.

In the past, the well could also be equipped with a water storage tank of 1 m³ and/or a windlass with a lifting capacity of 20 or 40 lts. After having produced 18 wells with this type of equipment, it was decided that the technology and it's appropriateness should be thoroughly monitored, before equipping all project wells with such superstructures. This monitoring, according to the newly adopted policy, will be executed in the eighteen mentioned villages; while in new project villages, the project will construct and monitor open wells with an elevated slab (containing necessary foundations to eventually put up wished for superstructures), a drain and a fence.

At the time of writing this report, the final report of the Evaluation Mission, which visited the project in September 1988, was barely received, and not yet discussed in detail. However, it is clear that important targets for Village Water Supply until June 1989 are:

- to recommend appropriate and sustainable technologies;
- to demonstrate the viability of the participatory approach;
- to create institutional capacity for production and extension.

1.2 THE VILLAGE PROJECT SECTION

The Village Project Section (VPS) is directed by the Head of Section assisted by an expatriate Expert. It further employs three female and five male extension workers (except two, all are secondary school leavers).

Tasks for the VPS can be divided in five categories:

- 1) The VPS prepares the signing of contracts between the project and those villages, which have sent in a request form for a well, and which were selected through geohydrological verdicting. When the contract is signed, siting and construction can start in the villages;
- 2) In villages where wells are completed, VPS is in charge of implementing a restricted Health Education Programme, which concentrates only on water-hygiene;
- 3) Preparation of an extension package, including extension materials, in connection with the offered technologies;
- 4) From January 1989 on, VPS will have the task of re-introducing improved windlasses, as well as 1 m³ storage tanks in those villages where earlier attempts were not yet successful. It will have to monitor and evaluate the usage, and acceptance of these water systems by the villagers, so as to make recommendations (together with the other sections and departments) on the appropriateness and sustainability of the technology offered by the project;
- 5) Additionally, the VPS can be asked to do special studies on a specific topic of importance to the project (e.g. cattle watering habits, water usage, etc.).

The VPS is confronted with several bottlenecks and weak points, all of which are extensively and very well described in the "Report of a rural extension mission to the VPS in June 1988" by B. Huizinga, to which is therefore referred. In the next chapter, the author mission will be developed.

2. DESCRIPTION OF THE MISSION

2.1 TERMS OF REFERENCE

If one takes a look at the terms of reference as described on page 27, 28 (TOR no. 5) of B. Huizinga's mission report (see Annex 1), it may become clear, that this is a description of a job taking more time than two months and a half of mission work. The mission therefore should be seen as being part of a longer process of assistance.

The manager and the Chief Technical Advisor asked that during the period of assistance to the Head of Section (Oct. 3rd - Dec. 20th 1988), emphasis be put on:

- day to day planning and implementation of the Village Project Section (VPS) work,
- the finalization and implementation of a Health/Hygiene Programme;
- developing monitoring programmes and tools for the VPS work.

Apart from this work, the author participated in a two-weeks course on Evaluation and Monitoring, organized for WADS staff members.

Each of these topics will be elaborated upon in the next sections.

2.2 EVALUATION AND MONITORING COURSE

This course was divided into two parts. During the first week, it was taught, through exercises covering topics relevant to the project, what evaluation and monitoring is about. The second week was devoted to the development of monitoring programmes and tools directly applicable by the various sections of the project. The course was, apart from it's content, also very useful to the author in the sense that it provided a good chance to get to know staff members and to get acquainted with the organization and functioning of the project and it's various sections in a relatively short time.

2.3

HEALTH HYGIENE EDUCATION PROGRAMME

Directly after the forementioned course, the VPS started finalizing a Health Education Programme developed earlier, by re-designing it partly. The programme was made as practical and pragmatic as possible; redundant theoretical medical knowledge and health topics not directly related to water, were omitted. These latter were considered to belong to the scope of the Ministry of Health rather than to the project's. The programme now concentrates on three topics related directly to the hygienic treatment of water, i.e. "clean well", "clean water transport", "clean water storage". The training method is based on the concept of adult education in a context of group work. It involves the Village Health- and the Village Water Committees, formed by the project, as well as groups of village women.

Water use?

Though, of course, this is not done overnight, the Village Health Committee can be taught to work independently from the project, first by experiencing the method, then by using the method. The method provides the Village Health- and Water Committees with the necessary tools to do group work and monitoring in the village. Monitoring tools were also developed for the project Health Education Teams and the Head of the VPS.

The programme thus developed, was tested in four villages by one VPS team of three persons (2 Male, 1 Female) under guidance of the author. These villages were Aween Radc, Dawra, Dabanaira and Dabo Kafot, all in Kas Rural Council. Main conclusions derived from the testing are that the programme can be successful, if very well planned. That is: one should be careful not to execute the programme in busy agricultural seasons; one should be careful to hold work groups at times and places most convenient for villagers; one should be careful not to overload people with too many programme-activities and/or too much information. Education teams should therefore be aware of and able to estimate village conditions (e.g. levels of knowledge), be flexible in size (e.g. to hold meetings at various places), and be able to improvise on the unpredictable.

The teaching method itself seems to suit both educators and participants: attendancy rates are quite high, and response and group discussions are vivid.

A weak point, which hopefully will change if follow-up programmes can be guaranteed, remains the difference in what villagers 'know' and 'do'. It takes more time than one month (test period of the programme) to change behaviour!

For more details one is referred to the proposal "WADS Health/Hygiene Education Programme 1988" added as Annex 2 to this report, and to the various field- and supervision reports produced by the Village Project Section in Nyala during the mission period.

2.4

MONITORING

As stated above, monitoring tools were developed to follow the work done during and through the Health Education Programme. Monitoring tools were also developed to do the same for other VPS activities, i.e. contract-preparation, water use surveys, installation and use of well-superstructures, office work. Village-activity-sheets (including transport-monitoring), village-status-lists, village questionnaires and interview checklists, VPS activities summary-sheets, reporting guidelines, two weekly VPS activities planning-sheets, and office work sheets were developed.

Attempts were also made to get these integrated into daily work. Resistance was felt from the side of the Section's staff with the filling in of "office work sheets", which probably has to do with the unfamiliarity with such type of monitoring. It is experienced as offending and is thus neglected. The sense and use of the other types of monitoring is understood and accepted. One can therefore be hopeful, that all VPS members will keep on filling in these sheets in a systematic, regular and continuous way. If not, the process of monitoring, of adapting will become impossible.

Much time and energy was spent, together with other sections on the development of a Special Monitoring Programme concerning the reintroduction and follow-up of windlasses and/or water storage tanks, and the introduction of communal buckets in open wells in a total of 18 villages. The VPS will monitor specific aspects of usage, management, acceptance of the "design appropriateness" of well-superstructures provided by the project. It will also monitor the hygienic aspects of the whole structure (e.g. drainage, fence, environment etc.). Monitoring tools had partially been prepared by the time of the author's departure, and it is expected that this programme can start at the beginning of January 1989.

2.5 PLANNING AND IMPLEMENTATION OF VPS DAILY ACTIVITIES

This aspect of the work, planning namely, is probably the most difficult one. Not because it is not known what VPS activities should be or what it's members should do, but often because of factors beyond control of the VPS.

A fixed planning of more than two weeks seems an impossibility. A main bottleneck is formed by drivers taking the Section's cars for repairs/services on their own initiative, without consulting the Head of Section. Once the car in the workshop, it takes time to get it released again. Drivers do not keep to the existing servicing schedules and are obviously always welcome in the workshop. Control on this is difficult for the Head of Section, who is often unable to estimate the seriousness of the technical problem, and who is obliged to work through the Administration and the Management for complaints and sanctions.

Another bottleneck is sometimes the close coordination and cooperation with other sections. Agreements made between sections are not always kept either for reasons of time lack, logistical problems (cars, fuel, materials, etc.), or for reasons sometimes left unexplained. Sections therefore are sometimes just waiting for each other, before being able to take actions (e.g. not yet completed wells can not support a Health Education Training).

A third factor, which is impeding planning are the drastic changes in overall project policy proposed by various formulation/evaluation missions visiting the project. In such circumstances, a Head of Section, who may not always have enough experience in matters of planning, monitoring and evaluation (partly due to educational background), can obviously have much difficulty in keeping track of and reorganizing the Section's activities. The author's assistance in these matters consisted mainly of putting to question certain aspects of the policy (e.g. village selection procedure; monitoring responsibilities of various sections; task-divisions between various sections), and of trying to simplify matters as much as possible to promote clearness and routine. Fixed and regular tasks for the VPS, on a less ad hoc basis may improve the VPS' quality of work and may also make the VPS' role in the project more clear and appreciable for other sections.

The procedure of village selection was simplified, which makes planning of contract-preparation more easy. Things to, and tools for monitoring have been specified more clearly, therefore this activity (if it can be called an activity) can be followed and planned more easily. A Health Education Programme was tested, so that recommendations could be made on it's planning as well (see Chapter 1 of the Health Education Programme, Annex 2). A water-use study is in a phase of being finalized, so that recommendations for the future planning of such a study can be expected soon.

It will probably be in the benefit of the functioning of the VPS, if it could stick to a limited number of fixed activities, which can be executed at regular intervals, over periods longer than three months, or even half a year. This will provide the possibility to improve on the content of the programmes as well as on the performance of the teams. However, constraints beyond project control (e.g. fuel shortages, late delivery of goods, etc.) will obviously remain to have their impact on overall planning.

TOR no. 5:

Advise on profile expatriate extension worker (full expert succession of present BAD).

An improvement in the performance of the Village Project Section will require the appointment of an experienced extension scientist with at least some years of experience in the management of an extension programme.

He or she will assist the Head of Section of VPS, WADS/-Nyala in:

- the formulation of an extension and communication policy for the Section, as well as in drawing up a management plan for the implementation of that policy;
- the day to day planning, implementation, and evaluation of the work of the Section in all its aspects, including the design and preparation of extension materials as well as staff training manuals;
- the design and execution of a staff training programme in extension and primary health education methods for all VPS-personnel, as well as for the intermediate and junior personnel that the Ministry of Health has seconded to the project;
- the establishment of links with outside agencies such as Rural Councils, the Ministry of Health, Radio Nyala, various NGO's and others, for the benefit of the work of the section.

Requirements:

- postgraduate degree in one of the social sciences, including a specialization in extension science, primary health education, or adult education;
- three to four years of experience, in a rural or agricultural development project, preferably in Africa;
- good communication skills;
- prepared to live in an Arabic speaking country and willing to learn the language.

*Interview conducted by
Taez Fernig,
anthropologist; IDWAC
member 1988.*

Annexe 2

WADS-HEALTH/HYGIENE EDUCATION PROGRAMME;

for WADS-Villages with open wells; 1988.

SOUTH DARFUR; SUDAN.

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INTRODUCTION.

During the period of 1-11-1988 till 1-12-1988, a WADS Health Education Programme, as designed by the Head of the Village Project Section and his Assistant at that time, was executed for testing in four villages of Kas Rural Council by a team of three persons from the Section.

The intention of the Programme was not to provide too theoretical medical knowledge to the villagers. Theoretical, medical information is usually based on occidental concepts (e.g. 'bacteria', 'illness vectors', etc.), and will probably take a very long time to be understood and adopted by the village population. This type of knowledge transfer belongs to the Ministry of Health more than to the WADS Project. But, since the Project provides water all the same, an item which can pose health problems, a pragmatic approach to the subject was opted for. An approach which departs from villagers' own habits and knowledge, and which concentrates only on "water" and the hygienic treatment of it. The general outline of this Health Education Programme is described in Chapter 1.

The aim was not only to work with and through the Village Health Committee, which was formed as part of the WADS contract, but also to reach as many women as possible, since they are in charge of most water-matters. Under the guidance of the WADS team, the Village Health Committee members would analyze hygiene topics through a teaching method, which these members could later apply independently in the village. This method will be described in Chapter 2.

The Programme includes an introductory- and a closing meeting, and three training meetings, i.e. "clean well site", "clean transport", "clean storage". The content of each meeting will be described in Chapter 3.

Conclusions and recommendations based on the testing period are made in Chapter 4.

Annexes include various monitoring sheets, either to be filled by the Village Health Committee, the Caretaker(s), or by the WADS Health Education Team or the Head of Section.

CHAPTER 1: GENERAL OUTLINES OF THE HEALTH EDUCATION PROGRAMME.

General Objective:

To stimulate an increase in water consumption in households using WADS-wells, and to positively influence their health condition.

Secondary objectives:

1. To propagate clean well sites (slab, drainage, direct environment).
2. To propagate the use of clean buckets/water containers and ropes.
3. To stimulate a good maintenance of the well-fence.
4. To propagate animal watering and clothes washing outside the well-fence.
5. To propagate clean and safe transport of water from the well to the households.
6. To propagate clean storage of buckets/water containers and ropes.
7. To propagate maintenance of water storage containers ("Zeer") at home.
8. To propagate clean and safe water storage at home.
9. To propagate safe water taking from the storage container at home.
10. To stimulate improved personal and household hygiene.
11. To help the Village Health Committee to monitor these activities independently from WADS Health Education Teams.
12. To help the Village Health Committee to reach improvements independently from WADS Health Education Teams.

Target group:

Households using WADS wells.

Methods:

Approach villagers and have them actively participate, with the help of the Village Health Committee, through:

- Meetings with official village representatives, the Village Health Committee members, and leading figures;
- General village meetings/ public meetings;
- Observation, discussion and practical demonstrations at the well sites, on water fetching routes, in households;
- Women-discussion groups within the segmental areas of the villages, using the WADS well;
- Short lectures and discussion with the Village Health Committee, women groups, children.
- Use of flap-over posters.

Programming:

Three monthly, sub-programming/ adapting each eight weeks.

Supervision:

- Of: WADS Health Education Team working in the field, Village Health Committee, and Caretaker(s);
- By: Head of VP Section;
- Rate: Once a month; later at a rate in accordance with the follow-up programme.

Reporting:

- After each cycle of meetings, by each WADS Health Education Team, on:
planned activities, executed activities, problems encountered, achievements reached; programming of activities for the next two months.
- Three monthly by Head of VP Section, on:
summary of all Health Education Teams having been active, concerning planned activities, executed activities, total achievements reached, problems encountered; villages still waiting for Health Education; programming in activities, personnel and transport for the coming three months.

Monitoring:

- At each village-visit, by Health Education Team.
- One month after the last meeting held, in each village covered, by the Health Education Team.
- Once every three months in one third of all the villages covered by the Health Education Programme, by the Health Education Team or by the Head of the Village Project Section.
- Weekly by the Village Health Committee and the Caretaker(s), during the Training Meetings.
- Once a month by the Village Health Committee and the Caretaker(s), after the last Training Meeting.

Monitoring tools:

In the village:

- Observation, monitoring sheets (VHC,CT), discussions, interviews.

In the office:

- Reports of: team, supervisor.
- Village activity sheets, Transportation sheets.
- Team meetings.

Follow up programme:

Through monitoring and evaluation, it should be determined which villages would need/want a refresher Health Education Training, concentrating on which topics, and needing the participation of which groups of villagers.

Evaluation:

Every three months through monitoring and reporting.
Every six months after several follow up visits.
By the Head of VP Section.

Needs:

- 1 team of 2 persons, one male and one female, for 4 days field work each week (minimum);
- 1 car for 4 days field work each week;
- camping equipment; first aid kit;
- stationary; flap-over posters; 3 colour magic markers.

Working rate:

- a total of 4 villages in 6 to 7 weeks;
- each village visited 5 times for 5 meetings and 4 monitoring events; an interval of 1 or 2 weeks in between meetings number 3 and number 4.
- follow up left untouched, but to be guaranteed as described above.

CHAPTER 2:
METHODOLOGY OF THE HEALTH EDUCATION PROGRAMME.

1. Introduction:

The total Health Education Programme consists of five meetings with each village to be covered: one introductory, three training and one closing meeting (see chapter 3).

The first and last meeting are informative and organizational, plenary meetings, which do not process knowledge. These meetings do not take more than two hours at the most, and are meant for especially the village authorities, leading persons, the Village Water- and Health Committees, and Caretakers/operators. Of course, any other interceded villagers can also attend.

The training meetings instead, are 'educational': each treats a specific topic related to water-hygiene (see chapter 3). The information spread through these meetings is meant to reach the target group, i.e. households using the WADS-well. As many people as possible handling water (especially women), as well as those village organizations having an influence on the handling of water (Village Health-and Water Committee) should be mobilized and provided with information.

Having identified the two groups of 'women' and 'committees' to be mobilized, attention should be paid to how to mobilize them: what type and amount of information to provide, to which groups for how long, on which locations, at what hours, in which season,...? Convenience for the groups involved, understandable information of enough interest, as well as the possibility to contribute one's own knowledge probably are determining factors for the programme to succeed. The point of departure of the method therefore is adult education: every participant (WADS team members as well as villagers) comes with a certain level of knowledge which may be useful to all, and which can be build upon by all. The training context should thus not be determined by a hierarchical pupil-teacher relation, in which monologues are often held, but by an adult working group, in which dialogue is necessary.

Considering the actual tasks and responsibilities of women, and the theoretical ones of the Village Committees, it seems useful to provide an adapted training content, organization and time table for each of these two groups. This will be elaborated in paragraph two.

2. Development:

Each of the training meetings takes a total of half a day and an evening working.

At the start of each day, the Village Water Committee (VWC) and the Village Health Committee (VHC) are contacted. A review is made of agreements made, and a preview is given of the topics which will be covered during the day, of which persons are needed where and for how long, of which materials are needed when and where. The members of the various committees can there upon decide whether to participate or not to which sessions, and what actions should be taken.

Health Committee members should all be encouraged to attend; they are the most important body to spread hygiene information.

The sessions which should be held during the rest of the day and evening are: once an observation exercise and twice an observation-analysis exercise.

2.a: The observation exercise:

After the introduction of the day, the members of the VHC and the WADS team should go to a spot, where observation on the topics to be treated can be done (see chapter 3): the well-site, a water-transport route or the places where water is stored.

Before actually starting the exercise, the team has to explain to the VHC what "observation" means, i.e. seeing things without making judgement or too quick interpretations. A few examples should be given (e.g. there are sheep inside the fence; there are women washing outside of the fence; the fence is broken; etc). A place should be chosen preferably, where observers can stand or sit quietly and still have a good view: movement, walking and talking will create confusion among the observed and the observers, who will also lose concentration. To guide the observation a little, the monitoring sheet concerning the topic may be used as a checklist, to make sure, that relevant things are looked at (e.g. look at the ropes, at the fence, at the drainage).

Team members can take notes, not to forget important issues in the next exercise. VHC members will probably have to memorize, because few can write.

This exercise can be closed after having been on the spot for about an hour altogether. The next exercise can start.

2.b. The observation analysis number one:

From the observation spot, the VHC and the WADS team will move to a place, where concentration is possible, where a flap-over sheet can be hung and written, and where a limited number of casual visitors will pass by.

The WADS team should decide upon some task division amongst itself: who will write on the flapover sheets and lead the discussion, who will check on the time, on the degree of participation, on the voice loudness, on issues not being forgotten, on what went right and wrong, on what can be improved. The team has to be sure, that people can sit comfortably and feel at ease. It could arrange the people in half a circle around the flapover sheets. Team members could sit among the VHC members. A teacher-pupil, classroom atmosphere should be avoided. Dialogue, discussion, contributions from all (educators as well as VHC members) is what it is all about. The main talking should be done by the VHC members. Participants, sitting comfortably, are explained what this exercise is about. Everyone is asked to tell the group what has been observed. An inventory is made, through short sentences or words being written down on a flapover sheet by one of the WADS team members (in Arabic), with a marker pen, in such a way that everyone can see (see drawing page...). Everyone is stimulated to contribute; the team members can add some of their own observations, taking away shyness or shame also by naming funny things. The use of the flapover sheet is to divert attention from only the 'teacher', who is also not waited for in this way to continue discussion.

After having inventoried about ten to fifteen items, the group can proceed to the next step.

The VHC members, alone, should now make a classification into "bad" and "good", and explain the reasons why they do so. To be able to do this, every sentence/word written down before should be read out aloud and discussed. The writer should put a symbol of a different colour for "good" and for "bad" behind each sentence/word; both symbols if no consensus is reached. When finished, the WADS team goes through the classification and reopens the discussion on 'wrong' classifications, on non-consensus classifications, and adding new information, insisting on important items, gradually coming to a new classification if necessary. The symbols are this time put in the front of the sentences/words by the writer. When agreement is reached, the following step may be taken.

The group will now concentrate on the "bad" things mainly, trying to find out how these could be changed, or improved, by whom and in what period of time. A task-analysis is made for the VHC, the caretakers/operators, the VWC. The responsibilities and roles are specified, also for men, women and children. Commitments and agreements, which can not be sanctioned, are made on the basis that hygiene improvements can only be achieved if villagers themselves take action, put things known or newly learned into practice.

The WADS team therefore explains how the monitoring sheets can be of help in this task for the VHC, the VWC and the caretakers/operators. It also explains the use of these sheets to the project, so as to be able to react on specific problems, special issues, particular wishes, to be able to adapt the training programme in future/in other villages. The team goes through the monitoring sheets, explaining and clarifying the various questions to be answered every week or month. The sheets are then distributed to those concerned.

The session can be closed after having agreed upon the organization and the goals of the evening session, later in the neighborhood(s), with the women. It should be explained by the WADS team, how the VHC members, and not the WADS team members, should be in charge of the work to be done then. It should be clarified whether to hold the meeting at several places at the time in the villages, or in only one place (reasons of convenience, of higher attendance rates should be thought of). The team, the VHC members, the tasks, the equipment should be divided accordingly; the flapover sheets may need to be copied as well. Arrangements should be made for the mobilization of as many women as possible in time, and to have enough mats and lamps available. An translator may have to be appointed, to help the team member follow and add to the discussion. All these preconditions should be fulfilled, in order to have a smooth evening meeting.

This preceding exercise will probably take one and half to two hours to reach its end.

It is obvious, that the VHC should be trained to be able to do this work independently in the village, but cannot be expected to do so right from the start. The WADS team is there to transfer knowledge, not only on health issues, but also on the teaching methods.

The classification being made, symbols being put in front of each sentence, the VHC members will now concentrate on the "bad" things and ask the participants how improvements and changes can be made, by whom and in what lapse of time. Responsibilities, tasks, task-divisions, etc. for men, women, children, the VWC, the VHC, and the caretakers/operators will be put to question and discussed thoroughly. It is an important discussion, which usually is very lively and to which enough time should be given. This discussion may be very useful to the WADS staff as well: contract conditions for new project villages concerning tasks and selection of the VWC, the VHC and the caretakers/operators may well be adapted, or improved upon. WADS team members should therefore listen carefully, make notes, and communicate findings to their Head of Section.

The discussion will lead to agreements^x among the villagers, which can not be sanctioned) who are the only ones who can put to practice the proposed changes. The VHC will stress its responsibilities and tasks: after all, that was the purpose for which the Committee was established. The VHC will explain it's monitoring tasks to the participants (monitoring sheets, corrective action taking, revision of the hygiene topics with villagers), as well as those of the WADS team members (checking the village monitoring sheets, do observation, hold interviews). It will be explained that the monitoring results will be used to organize adapted refresher courses, to adapt Health Education programmes for other villages, to help to look for solution to specific hygiene problems which occur, to redefine asks and responsibilities if necessary, to find out whether the village is making improvements, etc.

When all the preceding is discussed, and some consensus is reached, the meeting can be closed. Probably one and half to two hours have passed.

CHAPTER 3: DESCRIPTION OF THE MEETINGS.

MEETING NO. 1: General Introduction.

Participants during the day:

WADS Health Education Team,
Official village representatives,
Leading persons (e.g. shaika, teachers, local doctors),
Village Health Committee (VHC),
Caretaker(s),
Villagers (women especially).

Purpose:

- * Introduction of WADS Health Education Team.
- * Introduction of WADS Health Education:
 - objectives,
 - target group,
 - responsibilities of villagers, VHC, caretaker(s).
- * Introduction of and negotiation on:
 - proposed methods of working with various groups,
 - proposed programme for the next two months,
 - proposed time-table for today and the other days.
- * Negotiation on a fixed meeting place to work with VHC.
- * Negotiation on lodging (sleeping places, food, water; for male and female).
- * Appointment for, and agenda of meeting no. 2.
- * Getting a first impression of the village: location of the well sites, hygiene at well sites, identification of segments using the WADS well(s), location of important households, general hygiene, general economic conditions, water habits, etc.

Methods:

1. Meeting with important people.
2. Walk through the village and its segments, with VHC and caretaker(s).
3. If possible, meeting with officials, VHC, caretaker(s), and as many villagers as possible (especially women).

Time table:

- 1: Morning.
- 2: Morning/ Afternoon.
- 3: Late afternoon/ Evening.

MEETING NO. 2: Clean well.

Participants during the day:

WADS Health Education Team,
Village Health Committee (VHC),
Caretaker(s),
Women using the WADS well(s).

Purpose:

- * Try to make a link between diarrhea and dirt, dirt and well site, well site and diarrhea.

- * Propagate a clean well site; stress responsibilities of VHC, caretaker(s), women, villagers in general:
 - clean the slab,
 - avoid spilling,
 - keep water containers on the slab,
 - clean the drainage system,
 - improve the direct environment (muddy/ wet places),
 - make and maintain a strong fence,
 - keep animals outside the fence, also for watering,
 - try to do the washing outside the fence.

- * Propagate clean water-fetching containers and ropes:
 - clean the water-fetching containers and ropes before throwing them into the well,
 - keep all the containers on the slab; do not put them off the cement.

- * Appointment for, agenda of meeting no.3.

Method:

1. Visit, observation, comparison, discussion, practical demonstration.
2. Group discussion, small lecture with flap-over posters.
3. Group discussion, small lecture with flap-over posters.

Location of:

- 1: At traditional well sites, at WADS well site(s).
- 2: At fixed VHC meeting place.
- 3: At a central place in the village-segment(s) using the WADS well(s).

Participating groups to:

- 1: VHV, caretaker(s), women using the wells.
- 2: VHC, caretakers.
- 3: Women from the village-segment using the WADS well(s), VHC members representing these segments.

Time table for:

- 1: Morning.
- 2: Morning/ Afternoon.
- 3: Late afternoon/ Evening.

MEETING NO. 3: Clean transport.

Participants during the day:

WADS Health Education Team,
Village Health Committee,
Caretaker(s),
Women using the WADS well(s).

Purpose:

- * Monitor all the topics of meeting no.2.
Discuss the weak points pointed out by the monitoring.
Analyze the problems; find solutions.
Stress the responsibilities of the caretakers, the VHC,
and the villagers.
- * Repeat the lecture of meeting no.2, concerning the weak points.
- * Propagate clean water transport; stress responsibilities of the women and of the VHC:
 - wash the water-carrying container carefully, before pouring water inside,
 - in case of an open container, cover it, clean the ropes and the water-fetching container before leaving,
 - keep children and animals away from the containers, also during transport,
 - avoid to touch the water in the water-carrying container with hands or fingers, also during transport,
 - try not to leave the water-carrying container unguarded while going home.

Method:

1. Visit, observation, discussion (old and new topics), practical demonstrations.
2. Small lecture (old and new topics) with flap-over posters, group discussion.
3. Group discussion and small lecture with flap-over posters.

Location of:

- 1: WADS well site(s).
- 2: VHC fixed meeting place.
- 3: At a central place in the village-segment(s) using the WADS well(s).

Participating groups to:

- 1: VHC, caretaker(s), women using the well.
- 2: VHC, caretaker(s).
- 3: Women from the village-segment using the WADS well(s), VHC members representing these segments.

Time table for:

- 1: Morning.
- 2: Morning/ Afternoon.
- 3: Late afternoon/ Evening.

MEETING NO. 4: Clean storage.

Participants during the day:

WADS Health Education Team,
Village Health Committee (VHC),
Caretaker(s),
Women using the WADS well(s).

Purpose:

- * Monitor all the topics of the preceding meetings.
Discuss the weak points pointed out by the monitoring.
Analyze the problems; find solutions.
Stress the responsibilities of the VHC, caretaker(s), women.
- * Repeat the lectures, concerning these weak points.
- * Propagate clean water storage at home:
 - empty the water-storage container of old water and deposits,
 - clean the storage container (if not every time, then regularly)
 - apply filtering/ depositing method already used (if unharmed),
 - keep the storage container covered, and away from small children and animals,
 - use one mug to get water out of the container, without touching the water with fingers, then pour into another mug from which to drink/ to use for other purposes,
 - keep the area around the storage container clean,
 - if possible, put the storage container on a stand.
- * Propagate safe storage of ropes and water-fetching containers at home:
 - wash the water-fetching container and the ropes before storing,
 - store them in a safe place: dry, high up, not on the ground, away from children, animals and dirt.

Method:

1. Visit, observation, discussion (old topics), practical demonstrations.
2. Household visits, observation, discussion, practical demonstrations.
3. Small lecture with flap-over posters, discussion (old and new topics).
4. Group discussion, small lecture with flap-over posters.

Location of:

- 1: At WADS well site(s), on water fetching routes.
- 2: In households of women using WADS well(s).
- 3: At VHC fixed meeting place.
- 4: At a central place in the in the village-segment(s) using the WADS well(s).

Participating groups to:

- 1: VHC, caretakers, women using the well(s).
- 2: VHC, women in charge of the households.
- 3: VHC, caretakers.
- 4: Women from the village-segment(s) using the WADS well(s),
VHC members representing these segments.

Time table for:

- 1: Morning,
- 2: Afternoon,
- 3: Morning,
- 4: Late afternoon/evening.

MEETING NO.5: Closing Session.

Participants:

WADS Health Education Team,
Official village representatives,
Leading persons,
Village Water Committee,
Village Health Committee,
Caretakers/operators,
Villagers, especially women.

Purpose:

- * Monitor all the topics of the preceding meetings.
Discuss the weak points pointed out by the monitoring.
Analyze the problems, find solutions.
Stress the responsibilities of the VHC, caretakers, women.

- * Close this Training Programme by:

- * Reminding the Health Education's
 - target group,
 - objectives,
 - training topics.

- * Reminding agreements made on tasks and responsibilities for the
 - Village Water Committee,
 - Village Health Committee,
 - caretakers/operators,
 - women; men; children.

- * Introducing the Monitoring Programme:
 - a. The village will be visited one month after this closing meeting.
 - b. Thereafter, the village will be visited at intervals varying from 3 to 6 months, depending on if the village will be integrated in the random sample (when many villages will be covered, not all can possibly be revisited).
 - c. A refresher-course may be organized, be there a need.

- * Handing out a Summary sheet of the Programme, the various Monitoring sheets, as well as one of the Flap-over sheets made by the VHC during one of the observation-analysis exercises.

Method:

Plenary meeting.

Location:

At a, for the villagers convenient place and time in the village.
Probably somewhere central, at around 20.30 hours (after dinner).

CHAPTER 4: CONCLUSIONS AND RECOMMENDATIONS.

1. For a Health Education Programme, using a method as described, teams are needed, which have a certain experience in putting up dialogue with villagers. They must be able to estimate, under the guidance of their supervisor, and adapt to local circumstances, regarding socio-cultural factors (e.g. divisions within a village, customs and rules) and local levels of knowledge. The method is very vulnerable to this. The teams must also be able to improvise on the unpredictable (e.g. due to political problems, a planned village appears to be deserted; a planned observation seems to be impossible, because people do not seem to use the well).

2. The minimum number of people in one team is two, each of a different sex. Less is not possible for practical reasons (writing and lecturing), and for reasons of effectiveness (voice control, stimulation of participation, keeping to time schedule, control of important issues, etc.), i.e. for a proper task-division.

3. The number of, and the size of teams need to be quite flexible to be able to reach several neighborhoods/segments in each village to be covered.

4. Careful planning and organizing is necessary for appointments to be realistic, feasible, convenient for village participants, for information to be diffused as intended, for task-divisions to be useful and feasible, etc.

5. The method as described, needs no sophisticated equipment and can be applied at almost any locality in the village.

6. High attendancy rates can be reached, if enough attention is paid to especially the factor of convenience for villagers (season, hour, locality).

7. It is not wise to plan Health Education activities in the agricultural season(s); this seems too heavy a burden on people: attendance rates of both VHC members and women citizens is much effected by this.

8. It will probably be more effective to not keep up with the working rhythm of one meeting every week, but to have one week interval between Meeting number 3 and Meeting number 4: villagers complained of the training period being too lengthy (n.b.: it was agricultural high season during the try out period), attendancy rates clearly decreased, VHC members felt "overfied" with information. Team members also tend to loose enthusiasm, having to camp a lot, not eating and sleeping regularly and also not being able to attend family affairs for too long. A break will be inspiring.

9. As much as possible, the teams should stick to the method and its organization: holding various types of working groups with various types of groups of people at various hours of the day. In this way, an effective transfer of knowledge, and a quite optimum division of tasks and responsibilities is possible within the village.

10. A Closing Meeting has been added later to the programme, to make a transfer of responsibilities to the villagers and their committees more clear, to remind the people of what the programme was about and also stress it's ending.

11. At the start of all meetings, even if they concern health and hygiene, it is wise to invite and inform the sheik, and the chairmen/their representative of the committees about the plans during that day. This prevents misunderstandings.

12. It will be fruitful, to guarantee a follow-up programme in the form of monitoring and an eventual refresher- or renewed/adapted training course.

13. It may be interesting to develop a hygiene training especially meant for children, for young girls, who are not directly reached by the Programme now developed, but who seem to be curious enough and who are indeed also an important part of the target group.

14. It may be important to find out the most important route of contamination of the well, and to adapt the training courses accordingly (first water quality monitoring findings point to buckets and ropes being important polluters).

15. It may be useful to divide those team members who executed the try-out of the Health Education Programme, to train new teams. For reasons of continuation and effective training on the spot, it would be advantageous to have quite a list of villages planned for Health Education coverage.

ANNEX:

WADS-WELL MONITORING.

SUPERVISION by Head of Village Project Section.

Objectives:

1. To evaluate the job performance/the functioning of the Health Education Team as a whole.
2. To evaluate the job performance/the functioning of each Health Education Team-member.
3. To evaluate the impact of the Health Education Programme on the target population (households using the WADS well) in terms of:
 - a. Population participation to the programme (meeting attendance, functioning of Village Health Committee and Caretaker(s), general satisfaction).
 - b. Understanding by the population of the messages.
 - c. Adoption by the population of the advises.

Methods:

1. Assist different kinds of meetings organized and held by the WADS Health Education Team, using the job performance- and impact monitoring sheets.
2. Visit, observe at WADS well site(s), on water carrying routes, in households using WADS well(s), using the same monitoring sheets as the Village Health Committee's and Caretakers'.
3. Hold informal interviews with the Village Health Committee members, the Caretaker(s), women in households using the WADS well(s), with leading persons in the community, using the interviewing sheets.
4. Analyze the various monitoring sheets, discuss incoherences, problems, etc.

Rate:

In a sequence of "8 weeks-Health-Education in 8 villages", have all different supervision-topics covered (e.g. doing one day trips, or one afternoon+night trip, or a combination of both).

Possible types of one-day-trips:

1. Attend meeting no. 1.
Join the WADS team in their baseline visit.
Discuss job performances.
2. On topics clean well site, transport, storage:
Join an observation/demonstration/discussion visit done by the WADS team, the VHC and the caretaker. Use the monitoring sheets and discuss topics and problems.
Attend a working group composed of the WADS team, the VHC and the caretaker. Discuss job performances and impacts.
3. Hold informal interviews with leading persons in the community, VHC members, caretaker(s), women in households using the WADS well(s).
Analyze all types of monitoring sheets.
Discuss first findings on job performance and impact with the WADS team, in the field. Be careful to analyze the interviews and monitoring sheets with more precision at the head office, and to have a second discussion on job performance and impact with the team also in the head office.

Possible type of one-afternoon+one-night-trip:

4. Join an observation/demonstration/discussion visit to households using the WADS well, done by the WADS team and the VHC. Use the monitoring sheet and discuss topics and problems.

Attend a women working group in a village segment composed of a WADS team-member, women using the WADS well(s), and a VHC-member in charge of the segment.

Discuss on job performance and impact with the WADS team member(s) and the VHC member(s).

ANNEX:

WADS-WELL MONITORING.
WELL OBSERVATION FORM for the CARETAKER.

Rural Council:

Village:

Date: 19..

Well no.:

Time:

Caretaker:

(simple well+slab)

1. Number of people fetching water: 1-10:
10-20:
more:
2. Is the slab clean?: YES:
NO:
3. Is the drainage system clean?: YES:
NO:
4. Is the soakpit silted?: YES:
NO:
5. Do people spill water around the well?: YES:
NO:
6. Are all water containers on the slab?: YES:
NO:
7. Do you see muddy places inside the fence area?: YES:
NO:
8. Have muddy places been covered with sand/gravel?: YES:
NO:
9. Are people washing clothes inside the fence area?: YES:
NO:
10. Are there animals inside the fence area?: YES:
NO:
11. Are animals being watered inside the fence area?: YES:
NO:
12. Is the fence broken?: YES:
NO:
13. Is the well damaged?: YES:
NO:
14. Is the slab damaged?: YES:
NO:
15. Did you undertake any action at all?: YES:
WHICH?:
NO:
16. Do you face problems in doing this work?: YES:
WHICH?:
NO:

ANNEX:

WADS-WELL MONITORING.
WELL OBSERVATION FORM for the VILLAGE HEALTH COMMITTEE.

Rural council:

Village:

Date: 19..

Well no.:

Time:

Observer:

(simple well+slab)

1. Number of people fetching water: 1-10:
10-20:
more:
2. Has the caretaker filled in his observation form?: YES:
NO:
3. Is the slab clean?: YES:
NO:
4. Is the drainage system clean?: YES:
NO:
5. Is the soakpit silted: YES:
NO:
6. Are all water containers and ropes cleaned before
being thrown into the well: YES:
NO:
7. Do you see any spilling water around the well?: YES:
NO:
8. Are all the water containers on the slab?: YES:
NO:
9. Do you see any muddy places inside the fence area?: YES:
NO:
10. Are muddy places being covered with sand/gravel?: YES:
NO:
11. Do people wash clothes inside the fence area?: YES:
NO:
12. Are there any animals inside the fence area?: YES:
NO:
13. Are animals being watered inside the fence area?: YES:
NO:
14. Is the fence broken?: YES:
NO:
15. Is the well damaged?: YES:
NO:
16. Is the slab damaged?: YES:
NO:
17. Did you undertake any action at all?: YES:
NO:
WHICH:

ANNEX:

WELL MONITORING.
TRANSPORT-OBSERVATION FORM for the VILLAGE HEALTH COMMITTEE.

Rural Council:

Village:

Date:

19..

Route to segment:

Time:

Observer:

1. How many people were fetching water when you observed?: 1-10:
10-20:
more:
2. Were there many plastic containers cut open?: YES: NO:
in tact?: YES: NO:
3. Were there many zeers?: YES:
NO:
4. Were many water-containers being washed before water was
poured into them?: YES: with sand/soap?: YES:
NO: NO:
5. Did you see hands going into the water of containers
just being filled?: YES:
NO:
6. Were there any water containers left unguarded?: YES:
NO:
7. Did you see animals drinking from water-carrying
containers?: YES:
NO:
8. Were many water-carrying containers being closed/covered
during transport?: YES:
NO:
9. Did you see hands/ fingers touch the water during
transport?: YES:
NO:
10. Did you see any ropes dragging on the ground during
transport?: YES:
NO:
11. How many donkeys carried away water during observation?:
12. Which villages use the WADS well?:
13. Which areas of these villages use the WADS well?:
14. Did you do observation at the well site:
on a water-carrying path?:
which path?:

WADS-WELL MONITORING.
STORAGE OBSERVATION FORM for the VILLAGE HEALTH COMMITTEE.

Rural Council:

Village:

Date: 19..

Village segment:

Time:

Observer:

Household no.:

1. How many households using the WADS well did you visit?:

In each household:

1. Number of adults:

number of children:

2. From where was water collected?:

wadi-well:

traditional well:

WADS well:

3. How many "zeers" did you count?: inside the house:

outside the house:

4. How many were covered:

5. For how many was the 2-mug system used:

6. For how many was a filtering/depositing method applied:

7. Which were these methods?:

8. How often are zeers said to be cleaned?:

how?:

9. Are there special zeers for drinking?:

kitchen use?:

10. How many zeers were out of reach from children and animals:

11. How many zeers were put on a stand/ clay table:

12. Was the water-carrying container being washed at the well-site?:

13. Storage inside the house: 1. 2. 3.

outside the house: 1. 2. 3.

on the ground: 1. 2. 3.

in a high place: 1. 2. 3.

out of reach of children/animals: 1. 2. 3.

1.= the "well-bucket",

2.= the ropes,

3.= the water carrying container.

14. Also used for other purposes: 1. 2. 3.

15. Did you give any advise:

Which:

ANNEX:

WADS-WELL MONITORING.

INFORMAL INTERVIEW WITH THE VILLAGE HEALTH COMMITTEE;
CHECKLIST.

1. What are the tasks of the Village Health Committee (VHC)?
2. How many times has the VHC met? For what reason? Were all VHC members present? What was discussed?
3. Did the VHC do any monitoring with the help of the Monitoring sheets, which were distributed during the last Training Programme? What were the problems encountered? Was any action undertaken to solve problems?
4. Did the VHC organize village neighborhood meetings?
 - If not, why not?
 - If yes, how often, where, how many people participated, what was discussed, what was decided, how did it go?
5. Did any VHC member do household visits?
 - If not, why not?
 - If yes, how often, where, how many households, what was seen and discussed, what was decided, how did it go?
6. Did the VHC have to contact the VWC, to help solve problems concerning hygiene, maintenance, repairs, etc.? What problem? Was any action taken? Was the problem solved?
7. If there are caretakers/operators, do they do their job properly? Why? Suggestions for improvements? How is the cooperation between them and the VHC? Suggestions for improvements?
8. What does the VHC think of the division of tasks and the responsibilities as agreed upon during the Training Programme? Do you have suggestions for improvements? How should these be introduced/made?
9. Are there any suggestions for future hygiene education messages and activities, and how to organize it?
10. Do WADS people ever visit the village? For what reason? Do they always contact the VWC? Do they sometimes contact the VHC? Do you think that the contact between the project and the village should be improved? Suggestions?

WADS-WELL MONITORING.
INFORMAL INTERVIEW IN HOUSEHOLDS;
CHECKLIST.

A: Water collection and use:

1. How many adults, how many children, how many guests does the household count?
2. Does the household keep any livestock to be watered? Types and approximate numbers?
3. Where is water collected? Why there?
4. How often is water collected each day? How much water is collected each day?
5. How is the water transported to the house each day?
If a donkey is used, is it used daily?
6. How long does it take to make one roundtrip to the well?
Do you have to wait a long time at the well-site? Why?
Does this disturb you?
7. In what containers do you carry water? When and where do you clean them?
8. Where do you store the water at home? When and how do you clean these containers? Do you use a filtering/depositing method?
9. For what purposes do you use the water, which you brought home? Do you always do laundry at home? How often do you wash the children? And how often do adults wash themselves? Do you use separate containers to store water for drinking/cooking and that for other purposes? Why? Do you water your animals at home? Do you use a special container to store that type of water? Why? Do you use a special bucket for watering only? Why?
10. Where and how do you store your bucket and rope? Are they used for other purposes too? Which? Do you always use your own ropes and buckets? Why?
11. Do you do any maintenance jobs at the well site (e.g. cleaning the slab)? Which? Whose task is it?

B: Functioning of the VWC, the VHC, the caretaker/operator:

1. Did you hear about the Village Water Committee (VWC)? Can you mention some people who are in the committee? What are the tasks of the VWC and how well do they perform them? Do you know of any activity they organized or action they have undertaken?
2. If there is a caretaker/operator, what are his tasks? How well does he perform his job? Do you have suggestions for useful changes in his tasks and responsibilities? Do you contribute to his compensation/salary in any way?
3. If there are problems at the well-site, who is contacted?: e.g. for a dirty well-site, a blocked drainage, a broken fence, a broken slab, a windlass which does not function, worn out common ropes/buckets?
4. Did you hear about the Village Health Committee (VHC)? Can you mention some people who are members? What are the tasks of the VHC and how well do they perform them?
5. Did you attend any meeting on health/hygiene? How often? By whom was it organized and where? Were many people attending? What was discussed? Was it interesting? Why?
6. Would you like some specific hygiene/ health topics to be discussed in future?