HANDBOOKS IN COMMUNICATION AND TRAINING FOR CSDR

NO. 2

PSC and Training Section
UNICEF/EAPRO
BANGKOK

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COMMUNICATION FOR WATER

PSC and Training Section

UNICEF
East Asia and Pakistan Regional Office
Bangkok, Thailand

CONTENTS

FOREWORD

This brief handbook on Communication for Water Programmes is primarily for use by Programme Communication (PSC) officers and programme and project officers with special responsibilities for water programmes.

It is designed to assist them in developing communication activities for new and ongoing programmes, and in convincing their colleagues of the need for communication activities as and when the need arises!

Its main objective is to suggest questions which should be posed and answered when planning water programme communication activities. For ease of reading and writing, most of our illustrations relate directly to programmes for improving water supply though we recognize, of course, that drinking water will not be safe unless other aspects of personal and environmental hygiene are also improved.

As this paper is one of a series it would also be helpful to read some of its partners which deal with different aspects of the same activities and use different illustrations.*

Like its sisters, this paper has been written in the UNICEF context and is primarily for use by UNICEF colleagues. It is hoped, however, that the modes of thought and expression are not so obscure as to be incomprehensible outside this Agency. Comments and suggestions for improvement from any source are, therefore, most welcome.

Jane Bunnag-Haile

PSC and Training Section
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June 1985

** See list on back cover of folder*

Introduction

Despite the vast resources being spent by development agencies, both national and international on installation and improvement of water supply systems of all kinds, communication activities for proper utilization and maintenance of those systems have generally been neglected. For UNICEF at least this statement holds true if we compare communication for water programmes with communication activities for other major areas of development interest, such as nutrition or immunization. Why should this be so?

A partial answer may lie in the fact that as water is undoubtedly a basic human need there is some residual feeling amongst those involved in developing water supply systems that one does not need to **promote** its use. In most cases, water is something which people already have and want more of; they recognize their own need. In this sense, water programmes are unlike those development activities designed to introduce totally new concepts and behaviours such as immunization or family planning programmes but could still be compared with nutrition programmes which have not been so neglected by the communicators. Most people have food and need more food but we are also concerned with the quality of food eventually consumed. In our water programmes similarly we are concerned not only with improving quantities of water available but also with the safety of that water from the health point of view. The achievement of the consumption of **safe** water would usually involve some major behavioural changes by the consumer.*

** It is not appropriate here to present the discussion relating to the respective importance of water quality and water quantity* *See Box on page 7* *for some reflections on this issue.*

The undisputed fact that everyone needs water is not then sufficient to account for the relative neglect of communication and education activities. Perhaps a more fundamental reason for the neglect of the so-called "social aspects" of water programmes is that almost always the people responsible for installation of physical facilities -- perhaps located in the Ministry of Public Works, or Interior, or Rural Development -- have little if any working contact with health education or primary health care programmes. Sometimes at the village-level their activities are or can be rationalized, but harmonization of social and physical aspects of water supply programmes at an earlier stage of programme development would help to avoid some of the grosser errors of installation still commited and ensure maximal utilization of the facilities when installed.

The condition of mutual neglect between hydrologists, drillers, engineers, hydrogeologists, on the one side, and the educators, and communicators, on the other, could be remedied by each party acquiring more knowledge, understanding and respect for the other's field of expertise. The following discussion may make some contributions to more co-operative endeavours.

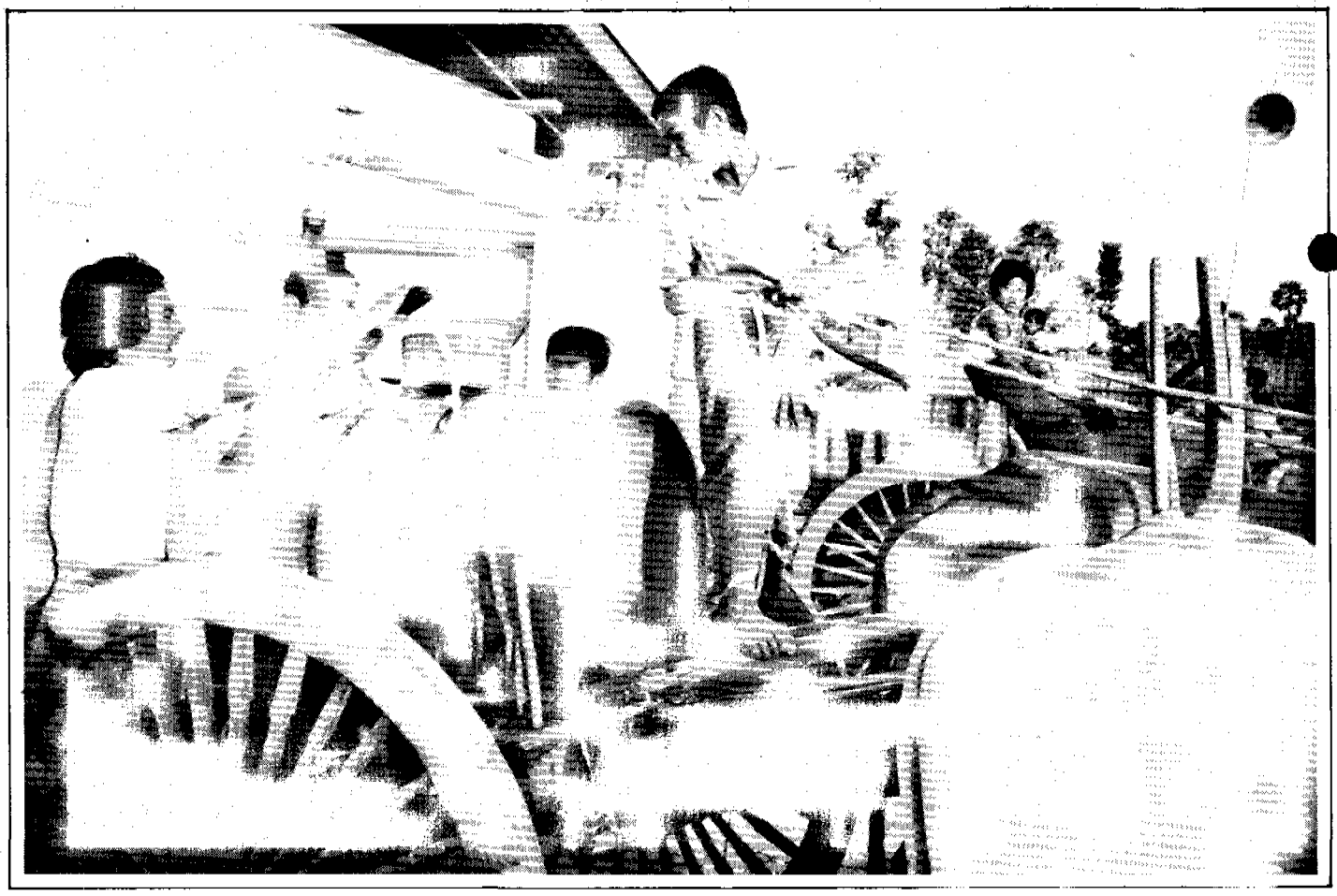
Achievement of the consumption of safe water requires major behavioural changes from the consumer

THE CONCEPT OF "SAFE" WATER; AND SOME OTHER WAYS OF THINKING ABOUT WATER

When we begin to consider who is the audience for our water communication programme it quickly becomes obvious that rather than being a simpler task than that involved in audience analysis for other development programmes it can indeed be even more complex.

As we have discussed extensively in earlier handbooks, **we are concerned in all our programmes with a variety of audiences who interact with each other and therefore impinge on each others' behaviour and decisions.** Even so it is usually possible to pinpoint, for UNICEF programmes at least , that the mother is our focal and ultimate audience who will, for example, take her baby for vaccination, learn to mix and administer ORS correctly and so forth. If the objective of our Water Supply Programme is, however, that water used by children and mothers should be safe, then **every person using the primary water sources and the containers used to transport, store,process, and serve that water is involved, and must be reached**

Before going more deeply into audience analysis, however, we must examine our basic "product" -- **safe water** -- and ask ourselves what it means to others. We tend to bracket those words together very easily but the concept of **safe** or **clean** water or even **drinking** water may have as little meaning to a village audience as did or does the concept of **family planning** to a population which has not been exposed to such programmes.



Every person involved in collecting, transporting, storing and processing water must be reached

Studies in Bangladesh, Guatemala Lesotho and the United States have failed to demonstrate that improvements in water quality had any marked impact on the diarrheal disease incidence.....quality of water alone is unlikely to bring all the benefits expected. Especially for the key objective of better health, two other factors need to be considered : quantity of water used and education.

With the rural people, some of the basic points of personal hygiene must be instilled : i.e., discontinuing use of contaminated water for drinking, cooking, washing and bathing, boiling of contaminated water if it has to be used, storage of water, and basic sanitation reguirements in handling food products and disposing of waste products. The effectiveness of education will ultimately decide whether all the benefits of community water supply programmes are realized. Unfortunately this simple lesson has still not been fully grasped by most national and international agencies dealing with community water supply.

Let me illustrate the point briefly, using the example of my home town in India, Balasore, where standpipes and some house connections have been provided in recent years.

- *People have no information on how to store water, so that contamination takes place at home.*
- *Although they may have safe water at home, people think nothing of drinking from the nearest water source, regardless of its condition, when they are away from home and thirsty.*
- *Small children, who normally have the highest incidence of diarrheal diseases, often are not taught to use the improved water supply. Water collects at the standpipes,with the result that pools of stagnant water (a common sight in most developing countries) become breeding grounds for mosquitoes and other insects--Balasore now has more malaria than before, and has in effect traded waterborne for mosquito-borne diseases!*
- *When the system breaks down, as it does frequently, people resort to contaminated sources--and are now more vulnerable to infection after having used clean water for a time.*
- *Provision of standpipes has not increased the volume of water use per capita.*

In short, providing quality water is only the beginning in terms of the ultimate goal of improved health. There must be enough of it, and people must be educated in its use. While these aspects of the problem must be primarily the responsibility of national and local authorities, they affect the plans of international agencies as well.

Water for the Third World, by Asit K. Biswas, Foreign Policy Review 1982.

Whether or not people require water used for drinking to be "clean" or "safe" on our terms depends, of course, on their sharing our understanding - or the blind belief of the well-taught! -- that organisms in dirty or contaminated water cause disease. Most specifically that drinking water contaminated by faecal matter can cause diarrhoea that kills.

Many societies do , of course, have theories of germs and disease transmission, which may sometimes be similar to ours though leading to very different behavioural conclusions. Hence, for example, the **common practice of defecating away from the house and compound, on the beach or the river bank in order to carry faecal matter away from the living area.** Understood in these terms, a sanitary latrine located inside the house is a very insanitary idea.

Some people believe that faeces cause disease but that a baby's faeces are harmless. Muslim societies strictly separate the functions performed by the left hand (anal cleansing) and the right (eating), and so forth. **It is vital, therefore, to locate and understand such theories of germs and disease transmission and to rocognise their effects on behaviour in order to work within and build upon them for our own education and communication programmes.**

The communities with which we are concerned may not then have categories of clean and unclean water which would correspond to our understanding of those terms. In societies where water is scarce it would be a luxury to discriminate. Other people, however, who traditionally have not experienced great water shortages may categorize their water according to use for drinking, washing, laundry and agricultural or other purposes. These distinctions may be made according to the different sources of water and the consequent perceived differences in taste, colour, "strength". The question of taste and colour is a very important one which when ignored has been the downfall of many drinking water supply programes. **Often water which is most "unsuitable" from our point of view -- being shared by wallowing buffaloes, for example, or with a high soil content -- is the preferred drinking water.** Water from newly dug and protected wells which does not possess the preferred qualities of taste and colour may be rejected.

In summary, where not in total scarcity water is often categorized according to preferred use and/or preferred source which may also vary according to season. It is as important to understand these categorizations as it is to determine whether or not indigenous theories of disease transmission are currently reflected in water use and appraisal of its worth.

AUDIENCE IDENTIFICATION AND ANALYSIS: WATER INTEREST GROUPS WITHIN THE COMMUNITY

So far, we have talked about the village community as a monolith but for water supply programmes as for other development activities this is rarely the case. It is equally important for overall programme and for programme communication purposes to understand which types of water are of interest to different groups in the community and what their respective responsibilities and decision-making powers are. A survey conducted under DANIDA auspices in Tanzania revealed, for example, some interesting facts about "the divergence of male and female interests in the villages". It was ascertained -- perhaps not too surprisingly -- that "women are in charge of domestic water supply, and have to queue at taps or to walk long distances with bucket". (One could develop an argument about the report's use of the term "in charge"?) They are also the main users of domestic water for cooking, washing, etc., and have, therefore, a vested interest in improving domestic water supply. However, as their access to cash is minimal they can hardly be expected to make financial contributions to operation and maintenance. The village leadership is dominated by men and men also control the cash income in the household and the village. During the survey, village leaders made it clear that they were not eager to contribute financially to schemes that would only serve domestic needs and not allow them to increase their cash income. The types of water most frequently mentioned in this context were for livestock keeping and irrigation. While both of these make a high demand on water **quantity** (which cannot be met from shallow wells), neither require necessarily **clean** water. It would obviously be a waste of resources to provide clean water for such purposes so that one would rather have to think of parallel solutions for domestic and non-domestic purposes. Through the same survey the researchers-cum-communicators ascertained the women's needs for washing slabs, the numbers needed, their location, height and so forth."*

Women might identify a water supply project as the first priority as they are the ones that have to walk long distances to fetch the water, while men may not feel the need for a water supply system. The same is true with sanitation facilities. A survey in Bangladesh carried out in December 1976 revealed that the sanitary latrines were primarily used by women, as it is they who feel the greatest advantage in having a latrine installed close to their homes. In a few cases, two latrines can be found in one household, in which case, one is used by the male and the other by females. In general, however, males and children hardly use latrines.

(Reference: People, Water and Sanitation, UNICEF, Assignment children 45/46, 1979. p. 141)

This report is quoted at length to illustrate the **importance of audience analysis and of getting communication from those various audiences as a basis for programme design.** Whilst hopefully after some exposure to communication about the benefits of clean water the men would be more concerned with the

* *Reference: Institutionalization of a Shallow Wells Programme under Tanzanian Administration (Draft Report BRALUP Seminar, October, 1981.)*

quality of domestic water supply, the "entry point" for their involvement should be their current interest in water for agriculture and income earning.

This report incidentally also points a nice warning against arbitrarily deciding how many water supply activities should go under a given programme umbrella. Often, and usually according to agency interests and capabilities a water supply programme is overtly concerned only with drinking water, or only with water for irrigation. But if we take audience interests and needs as our basis this may make very little sense. **Similarly , if we consider the community's health as our goal the common separation of water supply and sanitation activities may make impossible the achievement of the projects ulti mate objectives that is to say the consumption of safe water.**

What are some of the other factors we should be aware of within the community itself?

In most communities where we work water sources already exist but need to be improved. But these water sources may already have owners who bequeath them to their heirs along with other property. Access to and use of sources may differ according to kinship to the owner, or according to rank, caste or gender. Such factors must necessarily affect programme design -- the type, location, number of improvements to be made or new facilities installed. These factors also affect the type, size and source of contribution expected from the community to the installation and maintenance of new facilities. And in this regard we must look not only at existing patterns of ownership of water resources and facilities but also at the technological skills available in the village, co-operative and credit systems, preferred spending patterns and average household incomes. It might be easier in the short-term to import porcelain fixtures from Europe as has happened in Tanzania, for example, but this is not a solution for the long-term.

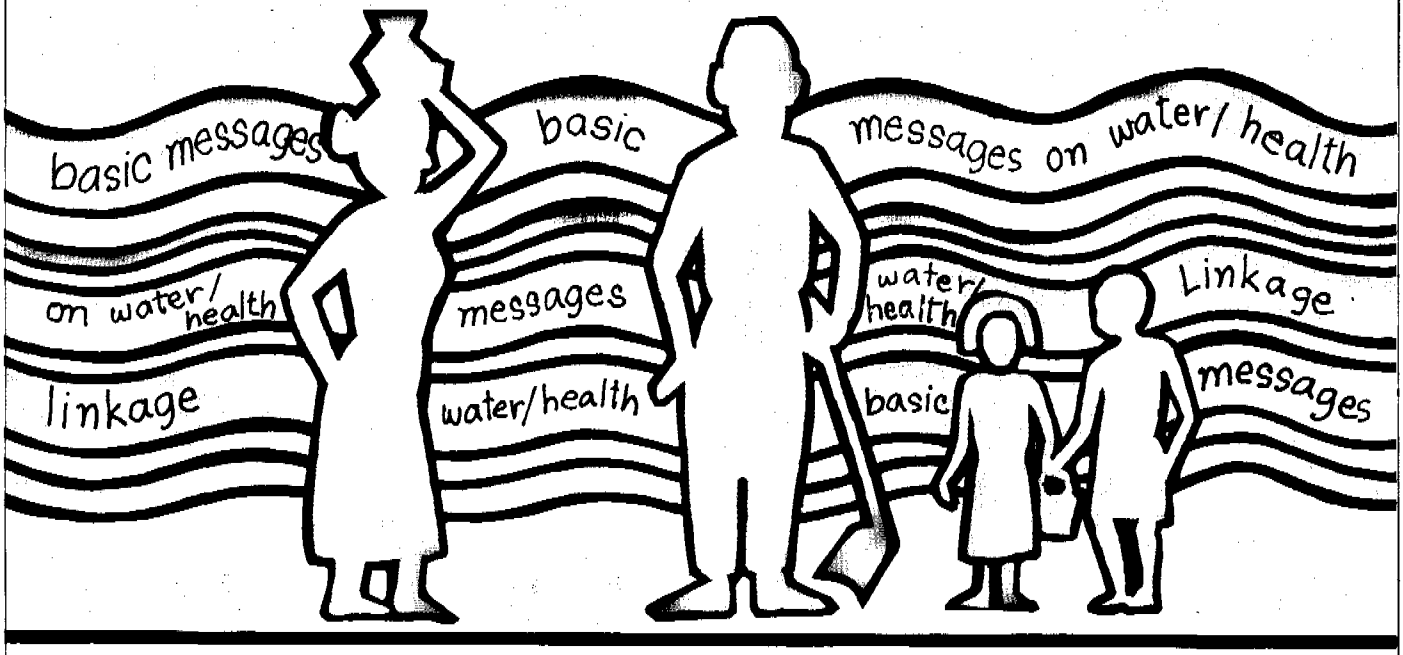
Women as water drawers can provide important information, e.g. in the Surigao rural water supply project in the Philippines, the women told the engineers the short-cut trail leading the spring source to the village. The engineers found that the amount of pipes and fittings requested originally for 11 systems could be used to extend service to eight more villages.

(Reference: *"Rural Water Supply Project of Surigao City, the Philippines", Water and Sanitation Team, UNICEF, New York, September, 1983.)

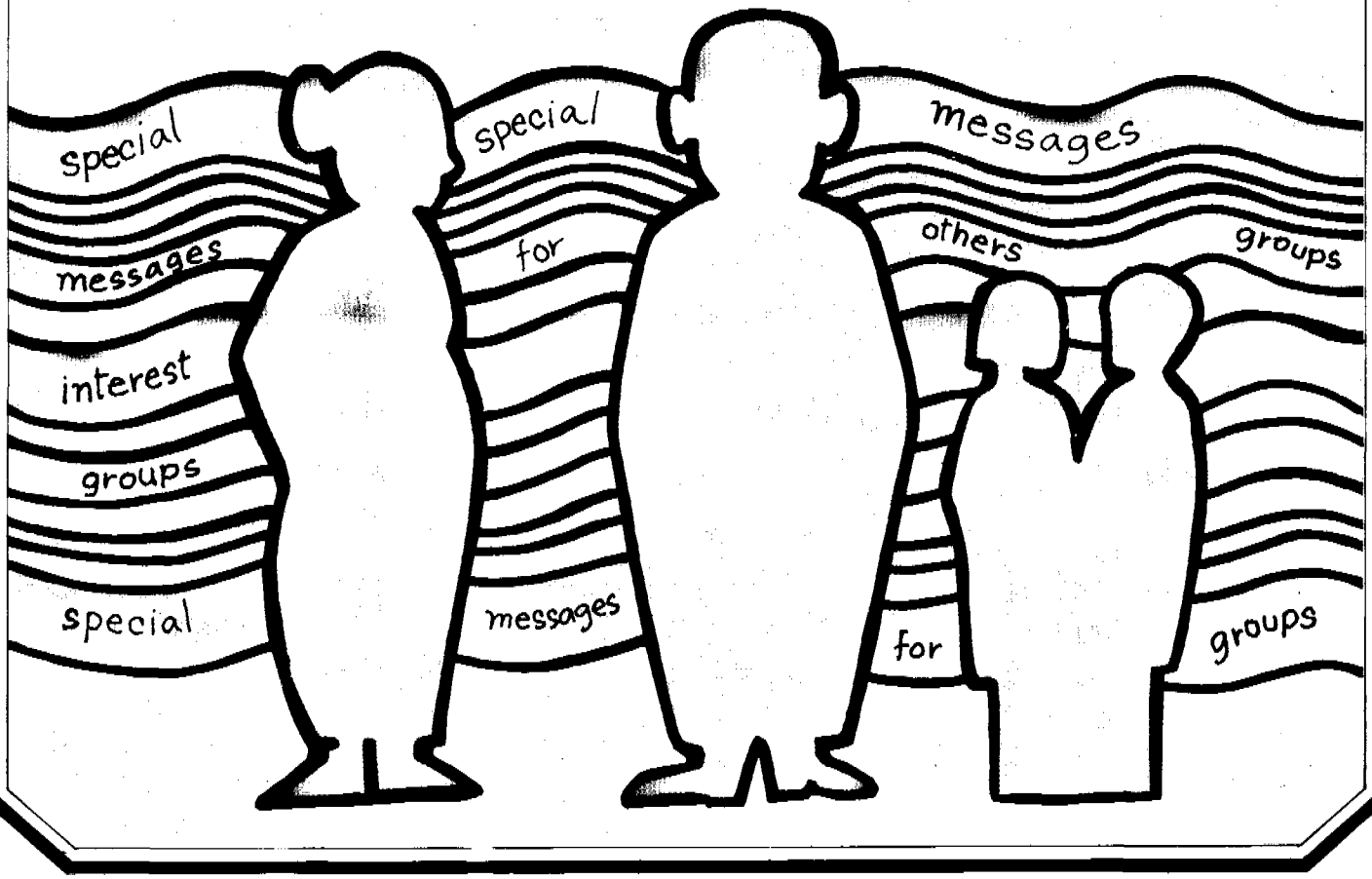
The development planners should also, of course, look into the possibilities of local manufacture of, for example, pumps and parts of pumps: and/or of financing by government subsidy, local credit systems, or individual families of parts to be bought locally. **It is to be borne in mind, however, that only if people are convinced of the benefits of the pump or other facilities installed will they spend any of their resources to maintain and replace them.**

As has been pointed out by others working in this field the community may be interested in improving water and sanitation facitities for other than health reasons. Women who carry water from the well to the kitchen several times a day may be interested in re-location of that **well**

BASIC MESSAGES ON WATER/HEALTH LINKAGE, PERSONAL HYGIENE, DISPOSAL OF FAECES AND GARBAGE.



SPECIAL MESSAGES FOR DIFFERENT INTEREST GROUPS



to a more convenient or private location: the installation of a pump may save energy for other things. Similarly, the motivation for installation and utilization of a sanitary latrine may be perceived improvement in status rather than health, or because it enables correct distance to be maintained between people who should not defecate in the same place.

Again, we should be aware of and build upon these interests in promoting improved water supply and sanitation in the community.

In reviewing the preceding discussion it becomes clear that if we take the provision of **safe** drinking water to the community as our objective we are involved in a very complex task. **The accomplishment of this objective involves not only the change of existing facilities but also the network of behaviour and beliefs which has developed around the ownership and use of water and which involves every person.**

What then are some of the first questions the **programme communicator** would pose to and about that community in developing with other colleagues a scheme for improving the quality of water consumed there

- How does the community consider that disease occurs and is transmitted?
- Are theories of disease and its transmission reflected in water use, disposal of faecal matter and other wastes, personal and family hygiene
- Is water categorized as clean/unclean; safe/unsafe; for drinking, washing, laundry, agricultural purposes; according to source; taste, colour?
- How is access to water and management of water of different types arranged within the community?; What are the different interest groups?; who is responsible for which water-related tasks? (carrying water for domestic use; irrigation of vegetable gardens; water for cattle, etc.)
- Is water "owned" by the community; by individuals; a "god-given" right?
- How is water transported from source to stomach?
- How is disposal of faeces and other waste carried out by the community?; are different practices observed by different groups e.g. men, women, children?

The answers to these questions -- each of which may require some intensive questioning and observation -- would provide some basic "social" data for programme design. Already we can see to what extent our basic concept of clean or safe water is shared by our primary audience; how to build upon indigenous theories of disease and its transmission in promoting changes in water use; and which community groups should be approached in relation to different water facilities and schemes. This is to say we can draw the broad outlines of community audience identification and message development, for our project.

Everyone in the community needs the basic messages about water and health, though these same basic messages will be transmitted along different channels to different groups. As was discussed above the audience can also however be subdivided according to their interest in particular types of water and according to their role in installing, maintaining and using the new facilities. Additional different sets of messages need to be developed for these special interest groups e.g. village craftsmen, land-owners and those within the community who will convey the message to others -- teachers, midwives, religious leaders for example may be valuable channels.

A crucial aspect of the mass parasite control programme as implemented by the Japanese Organisation for International Co-operation in Family Planning (JOICFP) is that it stimulates the health educational process at both the individual and community levels. The parasite control programme as implemented through the integrated projects makes the individual aware that he can take action to improve his health condition and to sustain that improvement ; installation and proper use of sanitary latrines are two of the health maintenance mechanisms. Furthermore, the mass parasite control strategy as employed by JOICFP in its integrated programmes creates the awareness amongst the community that as far as parasite control is concerned no man, woman or child is an island. An individual's unsanitary behaviour is a hazzard to all who share his environment, and each is equally responsible for community health.

The first step is to convince the community that they are suffering from a parasitic infection which is deleterious to their health status, and therefore affects both mental and physical productivity and capacity to work. This in itself, of course, pre-supposes that the village level agents of the project already have the confidence of the community who will produce their stools for examination. Obviously, it should be easier to convince communities of the presence and problems or parasites where the infection rate of such a worm as ascaris is very high. But it has often been reported that rural communities in Asia and elsewhere have a very high tolerance of parasitic infection, regarding the presence of a few parasites as an ordinary fact of life. In some countries, it is felt that a moderate worm burden in a child assists in or indicates growth of that child. The first step in the JOICFP-sponsored integrated parasite control programme has usually been collection and collective examination of the community's faeces. The community is allowed to examine the specimens through microscopes to see the eggs in the stools. This activity must, of course, be promoted through an agent who is very credible with the community and requires from the outset a great deal of community co-operation.

(Reference : Briefing paper prepared by UNICEF/EAPRO for Asian Parasite Control Conference, Seoul, October 1982.)

AUDIENCES OUTSIDE THE COMMUNITY

Beyond the village the audiences for our communication will, analagous to other programmes, be those who are or who should be involved in carrying the message. To reach these groups and achieve their co-operation will need special promotional efforts by programme communication staff.*

Again, the health establishment at all levels - educators, and others should be a primary instrument for implementing this project. It is particularly useful if they can incorporate "water" messages into other activities. **Promotion of ORS, for example, should go hand-in-hand with discussion as to the prevention of diarrhoea arising from insanitary habits.** Parasite control programmes can also act as a useful entry point for education programmes as to how this should be avoided. The linking of parasite control with education to promote clean water and sanitary habits in the typical JOICFP programme, for example, illustrates an important principle of communicator credibility.* *If a person can actually help by doing something practical for you -- like ridding you of your worm-burden then you are more likely to believe the things he tells you on other issues more difficult to grasp -- such as the fact that apparently clear water may be dirty and dangerous.

** Please also refer to companion handbooks see bach cover of folder.*

*** See box page 12 (JOICFP*)*

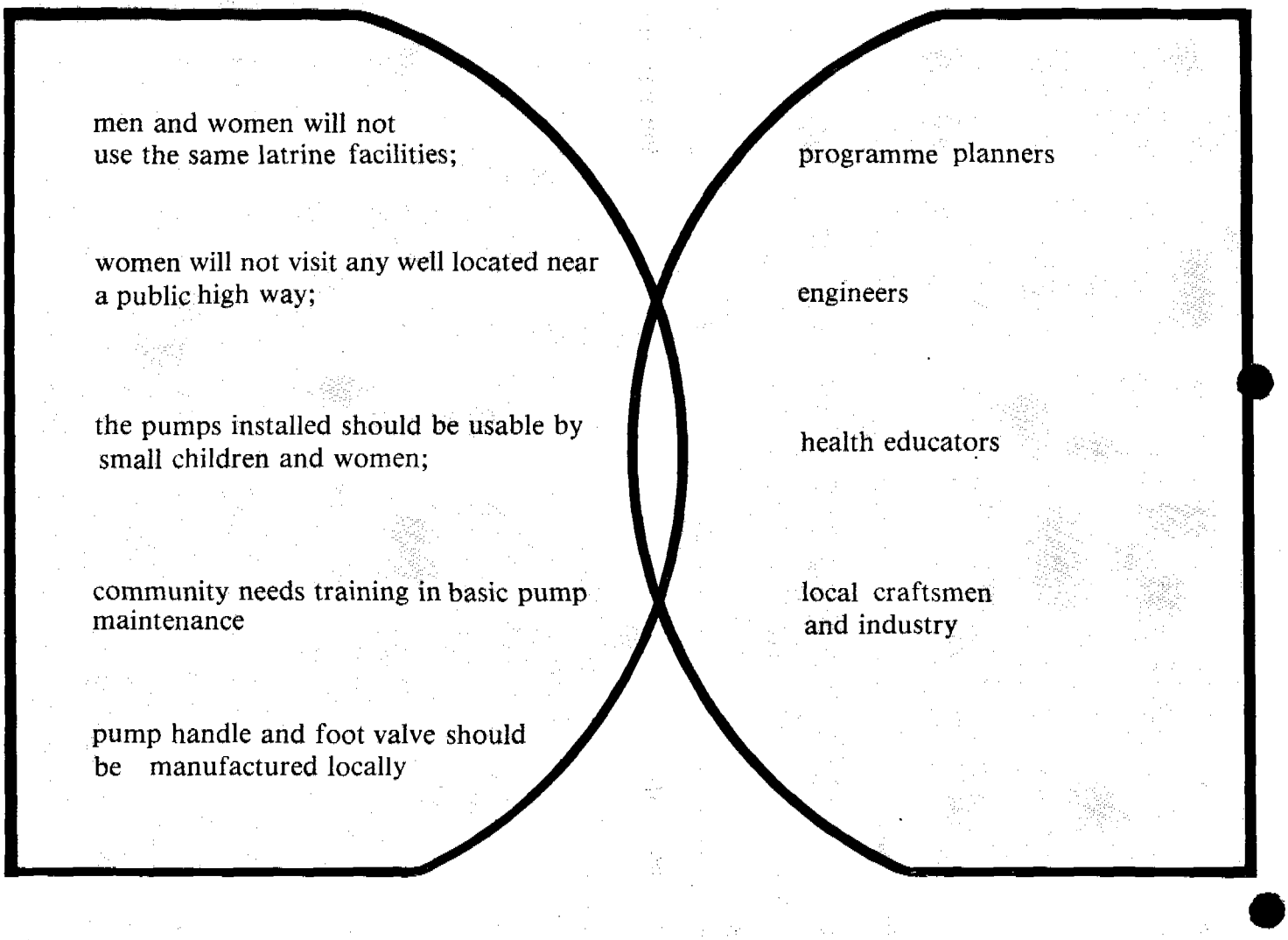
In some projects engineers have been the best communicators.

In some successful water programmes (eg., Livulezi, Malawi) the **water engineers have also been the communicators, explaining every stage of the operation with the community who** also recognized their need for an improved supply. Indeed where the community in investing time, labour and money -- as was the case with the gravity piped water project in Malawi -- is required to perform a major "act of faith" the credibility of the agency which is proposing to change totally established water habits is very critical. The merging of roles of engineer and communicator is unusual, perhaps most often paralleled in smaller NGO schemes, where the "doers" being close to the community are almost always communicators also.

In general, we can state that a major important effort to which the programme communicator should contribute is in bringing-together by providing information and by other promotional activities the various people outside -- as well as inside -- the community who have different but equally indispensible contributions to make to the programme. As mentioned above, it is very common to find that the persons responsible for physical installation of wells, pumps, and pipes, particularly in large-scale or urban schemes have no working contact either with officials who would be responsible for training the community to maintain and repair the new facilities, or with educators and communicators responsible for health, hygiene and sanitary education.

Another important bridge to be built is between the technicians mentioned above and "business", or commercial concerns who ought to become involved either in helping the community to assist in financing the installation of new systems - as for example - with agricultural banks; or local craftsmen and industries who might become interested in producing and marketing necessary spare parts for pumps, for example.

We must hasten to say at this point that we do not think that the programme communicator has all the answers to problems of lack of co-ordination. There are many reasons why people who should co-operate don't do it; external and domestic politics, tradition, location, time, budget, red-tape, and simple incompatibility. However, people also fail to co-operate because they do not know enough about each other or each other's work. They are then ignorant of the ways in which they can facilitate and improve each others activities. The programme communicator along with other programme staff has a necessary role here in determining between which groups of people "bridges" need to be built - engineers, health educators - and in determining the communication and information content of those bridges or the messages which should flow between these groups



We have attempted in the accompanying checklist to systematize our "communication" questions, and to suggest some complementary data needed in developing the programme and some of the possible implications for programme design. It is crucial that the communication officers the programme officers and the engineers hydrologists and others involved work together in developing a water supply programme based on a thorough understanding of the audiences' characteristics and needs

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CHECKLIST OF DATA NEEDED FOR PROGRAMME PLANNING

Background

The project aims to provide the community with a safe source of drinking water by protecting existing shallow wells and installing simple PVC handpumps with wooden handles. The village will be expected to make the wooden handle and to pay for the cement ($15 per well) to cover the well. The PVC pump (approximately $25 on the market) will be provided free of charge in the project area. The foot-valve which is liable to need replacement every 6 months with normal wear is available on the market for ($5). The pump is expected to be able to supply 30 litres of water per person per day for about 30 persons over a 6-month period without further maintenance.

What "social" data do we need to collect before we can refine the project further?

CONTENTS

Reference Materials on Communication for Water.

Report of Mission to UNICEF Bangladesh to review Water and Environmental Sanitation Programme, August 22 - September 3, 1982.

1. This report consists essentially of a series of comments synthesizing field observations at the study site of the Teknaf Dysentery Project, and reactions to a number of proposals for education/communication activities in the Water and Sanitation Programmes.* It closes with a series of recommendations for further action to be taken by UNICEF in the field.

2. As noted by the DANIDA Mission the Plan of Operations for a programme of Basic Water and Environmental Sanitation services gives relatively little consideration to the "software" side although repeatedly re-iterating the need for Health Education and PSC. The objectives in the Plan of Operations for the programme are phrased in terms of physical inputs and the capacity of Department of Public Health Education (DPHE) rather than with specific reference to expected behavioural change amongst the users. One may conclude that this probably reflects the legitimate professional bias of the authors as much as the absence of documented social data, or experience in these areas generated by the programme to date. It should not be forgotten that **this is an "old" programme in Bangladesh and must, therefore, have generated a lot of information -- even if unsystematized, and even not documented--about user response, demand, and water/sanitation behaviour. At many points of the programme there is close interaction between programme implementers and the users, such as must have yielded important insights on user behaviour, insights which may and must be tapped other than by simply going back to village level for census-taking and other survey exercises as if the programme were starting de novo. The implementer/user interaction must, for example, take place during Research and Development activities for Water/Sanitation facility design during hydrological and other surveys on that population ; through demonstration activities such as take place at latrine production centres ; during site selection, during installation and maintenance, etc.**

Hence one might expect sources and resources of data on the "software" aspects of Water and Environmental Sanitation (WES) programme not only in written reports, studies and theses but also in the persons of, for example.

- the peripheral level health workers;
- the caretakers;
- engineers, hydrologists;
- thana and other local level committees involved in site selection;
- Bureau of Health Education Staff.
- UNICEF staff in Dhaha and in the field;
- NGOs involved in the Water/Sanitation Programme; and
- International Centre for Diarrhoeal disease Research, Bangladesh. (in particular From the Teknaf Dysentery Project to which I shall return later).

Draft Plan of Operations for a Programme of Basic Water and Environmental Sanitation Services (1982-1983).

Appraisal Report of Bangladesh Rural Water Supply and Sanitation Programme, DANIDA, May 4, 1982.

Draft Explanatory Note to the Plan of Operations WES Sub-project F (Health Education and PSC).

Research Protocol for the Water and Sanitation Intervention, Teknaf, 1980-1983.

3. It would be extremely important to tap these resources in developing the education/communication strategies and in defining more precisely what further information is needed in this area, and which must be obtained during the bridging period. As is discussed further below it is important on two major counts to identify and tap these "intermediate" sources of data, rather than going back to the field for information on every item of Water/Sanitation behaviour. Firstly, time is short and we do not want to re-invent the wheel. We should make good use of existing experience, and concentrate new research efforts on identified areas of ignorance. It not necessary to mount a survey to find out that people in coastal areas defecate on the beach, and in mountainous areas in the forests. Nor that contamination occurs when drinking water is stored in uncovered pots. Second, it is generally recognised that the questionnaire survey such as is being contemplated for some of the proposed studies is not an appropriate tool for gathering data on sensitive issues from a relatively unsophisticated study population. Participant observation, difficult, time-consuming and labour intensive can solve some of the problems of bias introduced by the one-shot interview technique. Alternatively, third persons such as mentioned above, who are **in** but not of the community, can often provide reliable data more speedily on the community with which they are familiar.

4 It was suggested by the DANIDA Mission that some very broadly defined social surveys and studies be conducted during the one year bridging period in order to remedy the perceived need for information on and to the user population.

It was agreed in the meeting which took place in the UNICEF office on August 28, between UNICEF, DANIDA, Bangladesh Institute of Development Studies (BIDS), ICDDR, B, and DPHE that BIDS should be responsible for conducting these surveys. It was also agreed that survey and study activities should be preceded by a review of existing information in areas which remain to be defined. It should be stressed that this review should go beyond an acquaintanceship with **documented** experience in the form of reports and theses. It would be essential in the course of defining new data needs to tap very systematically the experience of resource persons who have been involved with the programme for many years.

5. Some of these resource persons might be the future communicators of the programme, for example, health workers, caretakers. They should have a major role to play in communication/education strategy design-firstly by telling us what they know about **current** user attitudes and behaviour. Data gathering from these groups may take place before or during the training exercises planned.

6 Specific mention can be made here of the health education aspects of the Teknaf Dysentery Project. On the negative side, it would seem that the ultimate deliverers of the message - the health educators - were not sufficiently involved in the development of those messages. They are now delivering the Water/Sanitation messages in a pre-determined sequence and with little attempt at achieving any dialogue with their "target" audience.

On the other hand, **the messages themselves seem to be good and appropriate. They were developed by the anthropologist and other concerned colleagues, building on the basis of the community's own perceptions of water-health, faeces-disease relationships.** He ascertained, for example, that the community clearly links disease with faeces which is why they defecate on the beach outside their own community. This is very discriminating defecation! Furthermore, he identified the points in the water usage chain where contamination is most likely to occur. It seems that with regard to identifying what behavioural questions should be asked the Teknaf study has a lot to offer.

7. As presently conceptualized, it is not clear what programme needs the information to be generated through the proposed surveys is intended to serve. Broadly defined social data can be relevant for every aspect of the programme design of physical facilities, programme management, education, communication, training, etc. Some of the behavioural data which it is intended to gather is clearly germaine to message design, but there are many areas of needed "social" information for communication strategy development alone which would not be addressed by these studies. These are discussed below in our recommendations.

8. It follows from this that UNICEF staff must provide very clear indications as to the information needed for various aspects of the programme. And that they should work very closely with the researchers throughout to ensure that the needs are being met, and in a timely fashion.

RECOMMENDATIONS

The present of Plan of Operations (WES SUB-project F, HE and PSC) gives the main parameters for action.

In order to refine this Plan of Operations for PSC/Health Education into a practical plan of action a number steps must be taken as follows:

Selection of Area

Communication strategy development requires precise definition of the target audience as well as of the "product" to be promoted by the programme. The first step in audience identification would be the selection of a geographical area for which a concrete plan of action could be developed within the parameters stated in the existing Plan of Operation. It has been suggested that the sites of the **UNICEF Area Development Programme** or the **Primary Health Care** thanas would provide ideal locations as the Wat/San education communication activities could be integrated with other programme efforts in that area, as discussed below.

Map of Physical Facilities to be Installed

Within the area selected it would be important to know precisely what types of pumps, latrines, etc., it is planned to install, at what times, and at which locations. It is necessary for the design of a communication/education campaign to know what role the intended users will have in installation and maintenance of these facilities and who will provide complementary service (e.g. caretakers role in maintenance; programme/government subsidies for latrine installation, etc.). It is also essential to have a clear idea of the time-phasing for this installation, and of the service objectives. By service objectives is meant not only the number of people a pump, for example, is intended to serve, but also whether tubewell water produced by this pump is (realistically) expected to serve all domestic and personal hygiene purposes as would be ideal. For latrine installation comparable data should be available e.g.how many latrines it is planned or hoped to install; where they are available, what will be the costs to the users/programme; who will install, etc. This data will provide the necessary factual basis for the development of information and instructional messages relating to operation and maintenance of the facilities.

It is possible and can be a useful planning tool to draft a series of map overlays of the location of physical facilities, and the communication infrastructure available in that area e.g. primary schools, local radio programming and broadcast facilities, community learning centres, primary health care and other cadres, etc.

Profile of Intended Users

As distinct from some other development programmes (e.g. breast-feeding, education, weaning foods) with which UNICEF is involved the **Water and Environmental Sanitation Programme is directed at all members of the population.** Nevertheless, in communication/education terms it seems to us that there are priority audiences and that these audiences may differ as between Water and Sanitation aspects of the programme. Definition of different audiences will, of course, have implications for the selection of media through which these people can be reached -- and hopefully respond.

A priority audience for messages relating to the benefits of clean water and the ways in which contamination can be avoided might, for example, be the mothers of children in the 0-5 age group. They may be responsible for carrying and storage of water. as well as for cooking for, feeding and training children in the 0-5 age group who are most vulnerable to diarrhoeal diseases.

Installation of latrines, however, might require providing some messages directly to the men who are decision-makers and have the purchasing power. Motivation to install a latrine may be provided in a variety of terms as well as,or other than,health benefits; in terms of increased privacy for the women of the family, with respect to enhanced status of the owner of the latrine, and so forth. After installation, another series of messages may be developed relating to maintenance and proper usage of the latrine which may more appropriately be directed to the women of the household.

The answer to the questions as to what to say and to whom to say it (and through which media) depend, of course, on a very through knowledge of the audience's present attitudes, and behaviour patterns to date. Only through this knowledge can we determine the "entry points" for education/communication about the programme "products".

As we noted earlier, a good deal of information -- some documented and systematic, and some not -- about water/sanitation behaviour already exists. Some of this data exists in the persons of, for example.

- The peripheral health worker:
- caretakers;
- thana and other local level committees;
- UNICEF and government programme staff, etc., and
- NGOs working in Water/Sanitation.

It is extremely important that we tap for areas selected these data sources in developing our education communication strategies, and in order to define more precisely what new data may be obtained, through, for example, the social science datagathering activities to be undertaken by BIDS during this period. It would incidentally be very helpful if at least some of their activities could be concentrated in areas selected for intensive education/communication inputs in the Water/Sanitation Programme.

Message Design

Messages are created on the basis of our knowledge of the "products" being introduced under their programme and our knowledge of the attitudes and understanding of the intended users with respect to these facilities.

As mentioned earlier, the work in Teknaf on message design has been very helpful in defining the questions to be asked e.g. do people have a perception of clean and unclean water, or is water simply available or not, convenient or otherwise? Is people's defecating outside the house and outside their village based on a theory of faeces being linked to disease? That is to say is their un-sound behaviour based on a perfectly sound theory? How can we link their perceptions to correct use of sanitary latrines; or in their absence to defecating in a fixed place, and covering the faeces afterwards?

The number of messages and sub-messages to be developed will be determined on clearer understanding of the intended users' present perceptions and behaviour.

Again, the Teknaf Dysentery project experience has a good deal to offer in that simple messages or slogans have been developed, e.g. use clean water for all purposes (only to be used where physical facilities make this feasible), along with a series of sub-messages which explain and clarify this slogan. In this case, for example, the sub-messages explain what **clean** water is, how it can kept clean, the consequences of contamination at any point in the usage chain, etc.

In the Teknaf project sites all these messages are being delivered by health educators without any audio-visual support. but for our purposes it may be important to isolate certain messages as appropriate slogans to be explicated by front-line communicators in more detail.

Channels of Communication

Interpersonal

There seems to be general agreement on the proposition that the thrust of our communication effort should be through interpersonal communicators. It is critical, therefore, that decisions be taken as to which of the bewildering number and variety of health and other cadres are the most appropriate to undertake this task. There are a number of candidates; peripheral health workers of various types; caretakers, school teachers, imams, field level Wat/San technicians, including staff of latrine production centres, have all been suggested as possible communicators. There may be others e.g. various local government bodies, community learning centres, agricultural extension workers, etc.?

It is vital in the selected areas to discover who is there, what are these current capabilities and workload, can they be asked to do more? And, what implications does this have for needed further training?

Where UNICEF is already involved in training, education or extension activities it would be very practical to see where additional Wat/San communication capability might be developed e.g. through imam training, through textbook design, through primary health care or caretaker taining, etc. An inventory of existing PSC/Health Education materials being produced in UNICEF in Wat/San and other areas would be very useful.

In line with our recommendations on message design we would suggest that particular effort be made to develop communication materials to support the work of these frontline workers. The support would be of two kind ; first, the materials would be developed in co-operation with the intended users e.g. primary health care-workers, etc. ; they would be discussed and reviewed during training, and presented at the end of the training. In the field, they would serve as a memory check to the field workers, and also help them to explain the messages to the community. Small and durable flip-books or flip-charts on laminated paper might serve this dual purpose. The same messages and motifs might be re-inforced and repeated through posters to be placed at selected sites, though we would regard field worker aids as being of greater urgency and as having potentially greater impact

Other Media

Radio

Radio has been named as the most viable of the mass media in Bangladesh for communication support activities. In his note of 16 September 1981. Taufique Mujtaba analyzed in detail the eight existing development oriented programmes broadcast by Radio Bangladesh everyday including the school programming. It would seem that these programmes provide an excellent opportunity for the delivery of Wat/San messages. Aside from this, short spot announcements or jingles should be devised to re-inforce the activities of the frontline field workers.

Wherever possible, we should seek out situtations where radio programming can be supported by interpersonal communication of the same information as through school programming, or through radio listending group.

Television

It has also been suggested that given the patterns of urban-rural visiting in Bangladesh, television programmes which would encourage the urban elite to act as seasonal re-inforcement or change agents in encouraging better Wat/San behaviour in their natal communities should also considered. That is to say that the television programmes are designed to reach urban elite groups who will then hopefully influence their rural relatives when they make their annual journey to their home village.

SUMMARY

Activity	Suggested Steps	Starting Date & Duration
1. **Selection of areas** in which education/communication strategy will be designed and implemented.	Consultation between Programme, PSC, Area Development and Health Sections to select specific geographical/programme areas for concentrating WES/PSC efforts	
2. **Mapping of Physical Facilities** (Nos., types, location) to be installed in this area; service objectives, costs, etc.	Collation of information from WES, BHE, etc. on proposed installation of physical facilities in area selected	
3. **Profile of User Population.** Present Wat/San beliefs, behaviour define priority audiences message content, etc.	. Identify documentary and human sources of information on user behaviour; . Collect and analyse information; . Identify needed new information and method through proposed BIDS Surveys/Studies.	
4. **Map of Media Infrastructure**	Appraisal of role and functioning of existing cadres of frontline workers (peripheral health workers, caretakers, etc.); identification of additional training needed. Appraisal of existing audiovisual aids especially materials supportive of interpersonal communicators.	
5. **Mass Media**	Explore integration of Wat/San messages with existing development related programmes. Explore uses of television for urban audiences.	

Reference Material 2

Extract from Survey Report

KNOWLEDGE, ATTITUDES AND PRACTICES RELATED TO WATER AND SANITATION

UNITED NATIONS CHILDREN'S FUND

PAKISTAN

THE RESEARCH SITE

Because of the integrated approach to programming being practised within UNICEF, it has been decided that the promoters should work in the six villages in which an existing programme is being implemented. District Mansehra is the site of an energetic programme in Community Participation. It is in the six villages chosen by the community for demonstration purposes for this programme that the promoters will work: to share their expertise and assist in planning and implementing the sanitation component. Certain difficulties exist, one important factor being that villages in some cases (because of political considerations) were not chosen according to the criteria for a demonstration village. Such criteria include accessibility, centrality, good leadership, few sanitation problems in any one place, and a population of about 200 houses with a total headcount of approximately 1,500 people.

Moreover being a different province altogether, North West Fronties Province (NWFP) has very different conditions from those in which the promoters gained their experience. The tribes and ethnic groups have different languages, customs and beliefs in certain respects; geographical and soil conditions differ as do local resources in terms of raw materials and the financial resources of this population in general.

Thus, it will more than likely be necessary to modify certain techniques and technologies and adapt them to the reality of each specific village, if necessary. Hence the relevance of the present study.

LIMITATIONS

There were several problems encountered which affected the execution of the study, namely language differences, inexperience of the training programme for interviewers, providing a jeep and driver as well as chaperones for the ladies.

METHODOLOGY

The Research Site

Listed below along with additional demographic information are the six villages chosen:

Name of Village	Number of Houses	Population	Total Sample	From Mansehra town to Village	
				Time in hours	Distance in Kms.
1. BALAKOT	350	3038	42	1	30
2. OGHI BAZAR	318	2160	42	1½	30
3. PESHORA	420	6595	42	3	78
4. PHAGLA	205	1910	42	½	15-18
5. PULRAH	221	1571	42	2	20
6. SHIN KIARI	195	1664	42	½	25
			(252)		

The promotor supplied a map for each village, which was used as a basis for sharing the workload among the interviewers, on a sector system - where six sectors A-F were assigned to the six interviewers. This sector division is important since it was done taking into consideration the clusters of houses in a village and their proximity to water sources. This latter variable is a very important aspect of the questionnaire, and would affect also the planning process for installing facilities at a later stage.

Sources and Types of Data

Data was gathered from one adult female member in each household who was most often the wife of the head of that household. It was decided to address these questionnaires to women since it is they who collect water and are responsible for care and hygiene of family members, household cleanliness and production of fuel.

The type of data required were information on:

- Water source availability, cost quality and uses, and preference regarding these aspects.
- Knowledge of water and its relation to health and hygiene.
- Personal hygiene
- Household hygiene practices
- Waste water; reuse and disposal of used or dirty water.
- Human Excreta Disposal; facilities, uses, cleanliness, its relation to health.
- Fuel sources, use, cost and their connection to waste.

Sampling Techniques

On arrival at each village the interviewer was directed by the promoter, using the map, to that sector of the village A-F, to which she had been assigned. She then entered at random the houses in the vicinity. A quota sample was the end result covering the entire geographical area of the population of one village. The total sample was 252.

Data Gathering Techniques

A structured schedule using open and closed questions with a built-in coding system corresponding directly to the tabulation form was the data gathering instrument. The questionnaire was drafted and re-drafted several times in English with suggestions from the Sanitarian and other colleagues. It was then translated into Urdu and typed and stencilled copies made. Two pretests were carried out in Mansehra district itself with the interviewers themselves contributing to the final revision. The questionnaire was administered face to face in Urdu except in the case of Peshora where Pushto-speaking translators were used as well (A copy of the questionnaire is attached as Annex II). Being "locals", the interviewers were easily acceptable to the village ladies especially since they were chaperoned by women from the self-same village as well. The interviewers had very few problems having each had a practice session in the field during the training. It gave them a chance to become very familiar with the questions and format, and gave confidence when actually faced with the real live situation (despite the fact that they had no prior experience).

Variable

Variables were selected on the hypothesis that for example, education, status and income would affect access to facilities, knowledge on the topics, and attitudes and practices regarding any one aspect. Cross tabulations would be set up for these. Percentages and averages would be ascertained as well especially for those variables included solely or primarily for information purposes, for example, knowledge of the teaching of Holy Quran on cleanliness.

Data Processing

Tabulation was completed by the lady interviewers on a prepared tabulation sheet to which data was immediately transferable from the questionnaire. Key punching and analysis was completed by the Computer Centre of the Quaid-i-Azam University.

Time Frame

Training begun on April 4, 1982 and questionnaire administration was completed 22 April. Analysis from the Computer Centre was received on 16 July, 1982.

QUESTIONNAIRE ON SOCIO-CULTURAL FACTORS RELATED TO HUMAN EXCRETA DISPOSAL, WASTE WATER AND HYGIENE

WATER

WATER COURCE	WHAT TYPE SOURCE	HOW FAR	ROUND TRIP TIME	TRIPS PER DAY	WATER USE	CONDITIONS as per *	*REASON USED	*PROBLEMS
Nearest						A. Availability B. Distance C. Ownership D. Cost E. Quality F. Competition G. Amount H. Availability	1. All year 2. Close 3. Public 4. Free/cheap 5. Clean 6. Uncrowded 7. Plentiful 8. All day	9. Part year 10. Far 11. Private 12. Expensive 13. Dirty 14. Crowded 15. Scarce 16. Part Day
Next Nearest						" Availability Distance Ownership Cost Quality Competition Amount Availability	" All year Close Public Free/Cheap Clean Uncrowded Plentiful All day	" Part year Far Private Expensive Dirty Crowded Scarce Part day
Farthest						" Availability Distance Ownership Cost Quality Competition Amount Availability	All year Close Public Free/Cheap Clean Uncrowded Plentiful All day	Part year Far Private Expensive Dirty Crowded Scarce Part day

All in each category as applicable

*** (Mark all applicable : reasons/problems)**

WATER COLLECTION AND STORAGE

1. In dicate your most preferred/used water source of the above (A = most preferred)
   A. B. C.
2. If water is not available inside the house, who brings water to the house?
   i. ii. iii. iv.
3. What is the cost of equipment for carrying and collecting water?
   Container : Type Cost Where available
   Rope : Type Cost Where available
4. If this equipment is not yours, how do you get to use it?
   i. Borrow..... ii. Community ownership..... iii. Rent..... iv. Don't use.....
5. Who maintains the water sources you indicated you used?
   SOURCE
   A. You Yourself..... B. Community..... C. Owner..... D. Other (Who)
   B. You Yourself..... B. Community..... C. Owner..... D. Other (Who)
   C. You Yourself..... B. Community..... C. Owner..... D. Other (Who)
6. How is the source maintained/What is this person responsible for? (Mark whichever applicable) i. Keeping it clean..... ii. Keeping animals away.....
   iii. Repairs & Maintenance..... iv. Other.....
7. Which of your water sources mentioned above do you pay for? (Mark where applicable)-
   i. ..... ii. ..... iii. .....
8. How much do you pay for each source each month? (N.A. = Not applicable)
   i. a) ..... b) N.A..... ii. 3-6 mths..... iii. Full year.....
9. If you buy water, for how many months in one year do you buy?
   i. Less than 3 mths..... ii. 3-6 mths..... iii. Full year.....
10. How do you store water at home (Mark whichever applicable)
    i. Clay pots..... ii. Cement Water tank..... iii. Other container (Specify).....
    iv. No Storage facility..... v. Tins/Drums..... vi. Skins..... vii. Metal water tank.....
11. What do you think about your drinking water?

	i. Yes	ii. No.	iii. Don't know
A. Tastes good			
B. Is safe and good for health			

12. If you think your water is bad, why do you think so? (Mark where applicable)
    i. Causes sickness..... ii. is dirty..... iii. Other (specify).....
13. Which sickness does bad water cause?
    i. ..... ii. ..... iii. ..... iv. .....
14. How do you make bad water good: (fill in as many as are applicable)
    i. ..... ii. ..... iii. ..... iv. (Don't know
15. Why do you use this method of making bad water good?.....
    .....
16. Do you have any idea of what else could be done to provide safe drinking water (Mark the 2 most preferred) i. Water tap..... ii. Hand pump.....
    iii. Covered wells..... iv. Separate water source for people and animals.....
    v. Boiling..... vi. Other (specify)..... vii. Don't know.....
17. Would you prefer your own or a community water source (Mark one only)
    i. Community..... ii. Own..... iii. Either..... iv. Both..... v. Don't know
18. If this water source was safe and good, would you be willing to pay for it, even if your present surce is free or cheaper?
    i. Yes..... ii. No..... iii. Don't know.....
19. Would you help build and maintain this source? (Mark all applicable)
    i. By Labour..... ii. By cash..... iii. In kind..... iv. Nothing..... v. Don't know...

HEALTH & SANITATION

1. How many of your family members got sick last year?
   i) one..... ii) Two..... iii) Three..... iv) More than three..... v) None.....
2. How many of the sick children were under 5 years old?
   i) one..... ii) Two..... iii) Three..... iv) More than three..... v) None.....
3. What was the problem?
   i) Eye diseases..... ii) Stomach pain..... iii) Diarrhoea..... iv) Worms.....
   v) Skin disease..... vi) Malaria..... vii) T.B..... viii) Throat Trouble.
   ix) Cold..... x) Fever..... xi) Cholera..... xii) Cough.....
   xiii) Typhoid..... xiv) Other...(Specify)
4. In your view, what was the cause of this health problem?
   i) Bad weather..... ii) By GOD..... iii) Bad water..... iv) Bad food.....
   v) Witchcraft..... vi) Other..... vii) Don't know.....
5. How did you treat these diseases?
   i) Home treatment..... ii) Hakim..... iii) Doctor..... iv) Hospital.....
   v) Religious head (Pir)..... vi) None.....

PERSONAL HYGIENE

1. Where does the family take baths (tick one for each category i-iii)
   i) Inside the house ii) Right outside the House
   iii) River, Pond, etc.

	a) Inside the house	b. Right outside the house	c.
A) Males			
B) Females			
C) Children.			

2. How often does one take a bathe?
   A) Winter: i. Daily ii. Weekly iii. Monthly iv. Every 3 months.
   B) Summer: i. ii. iii. iv.
3. What facility is available inside the house for bathing?
   i) None ii) Bathroom iii) Behind a curtain iv) Open room
4. Who uses this indoor facility (Mark one)?
   i) Females only ii) Females & Children only iii) Children only iv)
5. Is there a separate place for taking baths?
   A) Men i) YES ii) NO
   B) Women & Children i) YES ii) NO
6. Who helps/supervises the bath & cleaning of the children?
   i._____ ii._____
7. Do you clean your hands?
   a) After defecation i. YES ii. NO
   b) Before cooking i. YES ii. NO
   c) Before eating i. YES ii. NO
8. Do the children clean their hands?
   a) After defecation i. YES ii. NO
   b) Before eating i. YES ii. NO
9. How do you clean your hands?
   i) Do not clean ii) Wash with water only iii) Wash with soap
   iv) Other (Specify) v) Wipe only.

WASHING

1. Where do you wash clothes (mark all applicable)?
   i) Inside the house ii) Inside the compound
   iii) Other (Specify)
2. If washing is done at home, what facility is used (mark most used)?
   i) Open Pucca Pathar floors ii) Special wash basin iii) Tank
   iv) Common containers v) Wooden Platform vi) Other (S)
3. If washing is done outside the compound, e.g. in pond, river, etc., for what other purpose is this water source used (mark all applicable)?
   i) Watering animals ii) Drinking iii) Bathing iv) No other
4. Are you satisfied to wash in the same water used for animals?
   i) YES ii) NO
5. If no, why not?
6. What do you use to wash clothes?
   i) Water only ii) Soap iii) Other (Specify)
7. Are you satisfied that the clothes are washed clean?
   i) YES ii) NO iii) Don't know
8. Can you say what is the teaching of the Quran about washing?
9. Where do you clean your pots?
   i. ii.
10. What do you use for cleaning the pots?
    i. ii. iii. iv.

WASTE WATER

1. Do you have dirty water that you throw away?
   A) i) YES ii) NO
   B) Where do you dispose of this water?
      i. ii.
2. Do you re-use water? For what do you use if first and for what do you re-use it?
   i) NO ii) First use iii) Re-use 1. iv) Re-use 2.
3. Is there dirty water lying near your house? Where does it come from (put N.A. if answer is NO for place)
   A) i. NO ii. YES
   B) Place it comes from

HUMAN EXCRETA DISPOSAL

1. What do the following prople use for cleaning after defecation?

Men:	i) Parts of Plants	ii) Mud/soil	iii) Stone
	iv) Cloth/Paper	v) Water	vi) None
Women &	i)	ii)	iii)
Children	iv)	v)	vi)

2. Do you think that this is
   A) Healthy i. YES ii. NO iii. Don't know
   B) Best i. YES ii. NO iii. Don't know
3. Do you think that:
   A) Human excreta is dangerous i. YES ii. NO iii. Don't know
   B) Baby's excreta is dangerous i. YES ii. NO iii. Don't know

4. Do you think that disease can be spread by human excreta?
   i. YES ii. NO
5. Which diseases do you think are spread by human excreta?
   i. ii. iii. iv. v. None
6. How are these diseases spread from excreta to people (Mark for i-v)?

A) By flies	i. YES	ii. NO	iii. Don't know
B) By dirty hands	i. YES	ii. NO	iii. Don't know
C) Contaminated food	i. YES	ii. NO	iii. Don't know
D) Dirty water	i. YES	ii. NO	iii. Don't know
E) Other (Specify)	i. YES	ii. NO	iii. Don't know

7. What system do you use to dispose of excreta (mark one for i-vi)?

A) Pit latrine	i. Sometimes	ii. All the times	iii. Never
B) Dry latrine	i. Sometimes	ii. All the times	iii. Never
C) Flush toilet	i. Sometimes	ii. All the times	iii. Never
D) Corner of the Compound	i. Sometimes	ii. All the times	iii. Never
E) In the field	i. Sometimes	ii. All the times	iii. Never
F) Other (Specify)	i. Sometimes	ii. All the times	iii. Never

8. Which two of the above methods you use, do you prefer most and why? (Reason)
   A. ..... i) Like it. ii) Clean iii) Cheap iv) Easy v) dry
   vi) No alternative vii) Don't know
   viii) No disposal necessary ix) Other
   B. ..... i) ii) ETC iii) iv) v)
   vi) vii)
9. Which two methods do you like least and why?
   A.
   B.
10. If you use the field do you cover excreta with earth, leaves, etc after defecation?
    i. YES ii. NO
11. Does the family use human excreta for manure in the field?
    A. i) YES ii) NO iii) Don't know
    B. Do they mix human excreta with other refuse.
    i) YES ii) NO iii) Don't know
    C. What is this mixture used for ? _____
    D. If this is not done, why is human excreta and other refuse not mixed.
12. If you use the house or near the house for defecation who cleans the excreta away?
13. Do you pay this person and how much per month?
    A. i) YES ii) NO
    B. Payment_____
14. Where do these persons go for excreta disposal?

A) Men:	i)	ii)	iii)
B) Women:	i)	ii)	iii)
C) Children:	i)	ii)	iii)

15. If there is a latrine in your house, who uses it?
    i) Women only ii) Women and children only iii) All
    iv) Not used

16. A) If you have latrine and don't use it.
    B) If you don't have a latrine, why not? (mark all applicable)
    i) Don't like ii)Bad smell iii) Don't know how to use properly
    iv) No one to clean it v) Other (specify)
    (ONLY FOR ii) 6) Can't afford

17. If you have no latrine, do you know what it is and how to use it properly?
    A. a. YES b. NO
    B. Explain _____
18. If you have no latrine, would be interested in having one in your house or compound?
    i. YES ii. NO iii. Don't know
19. If someone showed you how to build a latrine, how much would you be willing to spend building it?
20. Would your husband be willing to have it built or help to build it?
    i. YES ii. NO iii. Don't know
21. Are there any latrines in your village? What do you think of them?
    A. i. YES ii. NO
    B. Opinion _____
22. You need a little water every time you use a latrine. This means getting a little extra water. Would you be able and willing to get more water for this purpose?
    i. YES ii. NO iii. Don't know

ANIMAL EXCRETA & REFUSE DISPOSAL

1. Where and how do you dispose of your garbage?
   i. ii. iii. iv.
2. For what purpose do you use animal excreta if you own any animals?
   i. ii. iii. iv.
3. If you don't own animals do you obtain animal excreta for the purposes you just mentioned?
   i. YES ii. NO
4. If so, for what purpose is the mixture used?
5. If not, why?
6. Is animal excreta dangerous?
   i. YES ii. NO iii. Don't know
7. Can animal excreta cause diseases?
   i. YES ii. NO iii. Don't know
8. Which diseases are caused by animal excreta?
   i. ii. iii. iv. Don't know
9. Is animal excreta the same as human excreta?
   i. More dangerous ii. Lesdangerous iii. Same iv. Don't know

FUELS

1. What do you use for fuels?
   i. ii. iii. iv.
2. Is there enough fuel?
   i) All the time ii) Never iii) Often
   iv) Most times no

3. Do you feel you need more fuel and what kind (Put N.A. under 'type' if answer is NO)
   A. a. NO b. YES
   B. Type _____
4. What do you use for lighting?
   i. ii. iii. iv.
5. What is the cost for fuel and lighting monthly?
   i. Fuel _____ ii. Lighting _____

FAMILY DATA

1. Name of Interviewee: _____
2. Sex of Interviewee: i. Male _____ ii. Female _____
3. Relationship with family head: i. Family head _____ ii. Wife _____
   iii. Mother _____ iv. Son _____ v. Daughter _____
   vi. In-law _____ vii. Other
4. Occupation of family head:
   A) _____
   B) What is the income of the family per month?
   C) How much do you earn per month if you have any income-generating activity?
5. Number of family members:
   A) Male: 0-5 years _____ i. 6-10 _____ ii. 11-15 _____ iii. 16+ _____
   B) Female: 0-5 years _____ i. 6-10 _____ ii. 11-15 _____ iii. 16+ _____
   C) Total: 0-5 years _____ i. 6-16 _____ ii. 16+ _____
6. Have you attended school: i) None at all _____
   ii) Level 0-6 _____ iii) above level _____ iv) _____
7. Do you or your husband belong to any village committee or hold any important position in the village:
   A. husband of interviewer: –. None ii) _____ iii) _____ iv) _____
   B. Interviewer i) None ii) _____ iii) _____ iv) _____

HOUSE

1. Type of dwelling (to be determined by the interviewer):
   i) Pucca _____ ii) Semipucca _____ iii) Kuchha _____ iv) Tent _____
   v) Hutment _____ vi) Other _____
2. Other facilities: (mark all applicable)
   i) Electricity _____ ii) Gas _____ iii) Water _____ iv) Separate kitchen _____
   v) Separate Bathroom _____
3. Structure of the House: (mark all applicable)
   i) Mud _____ ii) Bricks _____ iii) Stones _____ iv) Cement _____ v) Bricks, Mud _____
   vi) Cement roof _____ vii) Pucca floor _____ viii) Windows _____ ix) Ventilators _____
   x) Doors _____
4. Number of outlets in house, i.e. windows doors, etc:
   a) one only _____ b) _____ c) _____

LIST OF PUBLICATIONS BY THE TECHNOLOGY ADVISORY GROUP (TAG) UNDP INTERREGIONAL PROJECT INT/81/047

WP/01 A Model for the Development of a Self-help Water Supply Program; by Colin Glennie.

WP/02 Ventilated Improved Pit Latrines: Recent Developments in Zimbabwe; by Peter Morgan and D. Duncan Mara.

TN/01 Methods for Gathering Socio-Cultural Data for Water Supply and Sanitation Projects; by Mayling Simpson-Herbert.

TN/02 Planning of Communication Support (Information, Motivation and Education) in Sanitation Projects and Programs; by Heli Perrett.

TN/03 The Ventilated Improved Double-Pit Latrine: A Construction Manual for Botswana; by John van Nostrand and James G. Wilson.

TN/04 Pit Latrine Ventilation: Field Investigation Methodology; by Beverley Ryan and D. Duncan Mara.

TN/05 Social Feasibility Analysis of Low-cost Sanitation Projects; by Heli Perrett.

TN/06 Ventilated Improved Pit Latrines: Vent Pipe Design Guidelines; by Beverley Ryan and D. Duncan Mara.

TN/07 Community-based Workshops for Evaluating and Planning Sanitation Programs: A Case Study of Primary Schools Sanitation in Lesotho; by Piers Cross.

TN/08 Rural Ventilated Improved Pit Latrines: A Field Manual for Botswana; by John van Nostrand and James G. Wilson.

TN/09 Handbook for District Sanitation Coordinators; by Kebadire Basaako, Ronald D. Parker, Robert B. Waller and James G. Wilson.

TN/10 Manual on the Design, Construction and Maintenance of Low-cost Pour-flush Waterseal Latrines in India; by A.K. Roy.

TN/11 Monitoring and Evaluation of Communication Support Activities in Low-cost Sanitation Projects; by Heli E. Perrett.

TN/12 A Monitoring and Evaluation Manual for Low-cost Sanitation Programs in India; by Ronald Parlato

OTHER USEFUL REFERENCES

Global Strategy for Health for All by the Year 2000, 1981; WHO/Geneva.

A Communication Strategy for a Rural Water Supply Project in Thailand, UNICEF, 1979.

UNICEF Water and Sanitation Activities. Programme Digests, UNICEF, New York.

Integrating People's Participation into Country Programmes, Report of the UNICEF Resource Network Workshop, New York, 8-12 December 1980.

UNICEF Co-operation in Water Supply and Sanitation Programmes, 1980.

Memo of James Grant, UNICEF Executive Director dated 22 May 1981 on the subject of **Water, Sanitation and Health Education: Clearer Focus on Objectives and Strategies as Part of Primary Health Care.**

Drinking Water to Rural Areas in Bangladesh: An Evaluation of the Rural Tubewell Water Supply Project, UNICEF, October 1979.

People, Water and Sanitation, UNICEF Assignment Children 45/46.

Appraisal Study on the Relevance, Need and Feasibility of an Action Plan on "Extension and Community Participation in Water and Sanitation in Developing Countries". Institute for Environmental Studies, 1979. Anne Whyte.

Participation and Education in Community Water Supply and Sanitation Programme: A Literature Review. Christine van Wijk-Sijbesma. International Reference Centre, The Hague.

Guide for the Design of a National Support Programme for Community Education and Participation in Water Supply and Sanitation, IRC, The Hague, 1980. Anne Whyte.

Community Education and Participation Programme: Profile, Intercountry Project, IRC, The Hague, October 1980.

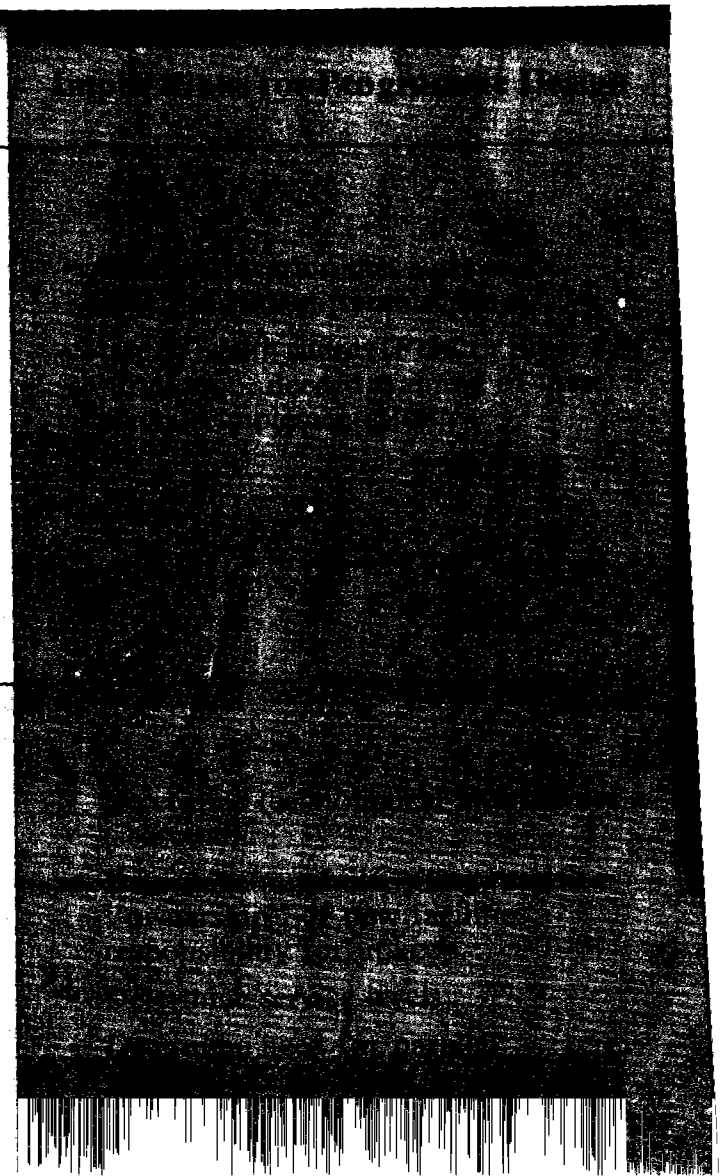
Project for the Development of a Community Participation Component in the Tanzanian Rural Water Supply Programme. (Draft Interim Report). September 1981, IRC, The Hague, Alistair T. White.

Project Profile for the Development of a Community Participation Component in the Tanzanian Rural Water Supply Programme, November 1980. IRC, The Hague.

Rural Water and Sanitation: Community Participation in Appropriate Water Supply and Sanitation Technologies: The Mythology for the Decade. (Proc. R. Soc. London 3209, 1980). R.G. Feachem.

CHECKLIST OF DATA NEEDED FOR PROGRAMME PLANNING
(Indicative not exhaustive listing)

Questions asked/Data needed by Programme Communicator	Complementary Data
1. Beliefs related to Water/Health • Is the concept of "clean" water meaningful to the community? How is water categorized by the community? • What concepts of disease and its transmission are prevalent in the community? Do these have any implications for water use and sanitary practices? • How credible are health personnel indigenous and official?	• Health profile of community especially in relation to water-related diseases; and children. • Health service infrastructure. • Other health interventions to which community subjected (e.g. family planning, MCH programme, ORS promotion, parasite control). • Indigenous health-seeking behaviour.
2. Water Usage, Management • Rights to water -- "God-given", "government-given", etc. • Ownership of water sources; differential access to those sources. • Seasonal variations in water source. • Preferred water source for drinking/laundry/washing/ agricultural use. • Time taken in/distance travelled for water collection.	• Basic demographic data; expected population growth; stability of community in area. • Data from engineers, hydrologists as to technologically feasible solution(s) and alternatives by season. • Expected role of government/ agency/community in installation and maintenance.



3. Community Structure • Survey of village "government" structures, official/unofficial. • Identification of different interest groups with respect to water and sanitation. • Key influentials and leaders within community. • Community liaison persons with the outside world. • Decision-making processes within the community	• Analysis of structure, staffing and organization of government units involved in water supply and sanitation projects • Data on national NGOs active in the area.	• Identification of decision-making interest groups whose cooperation [illegible] be required through the [illegible] survey. • Identify major channels for project implementation throughout, including two-way communication activities, monitoring, evaluation, etc.
4. Community Economic Patterns • Means of subsistence. • Preferred spending patterns. • Co-operative and credit systems. • Differential economic roles. • Average household income (cash and kind). • Skills available at village level. • Tradition of co-operative labour.	• Macro-economic data for area. • Expected costs of installation and maintenance of facilities • Expected maintenance needs at village level. • Local availability of simpler spare parts, cost of such. • Possibility of developing local manufacture.	• [illegible] • [illegible] for maintenance. • Feasibility of imposing water rates • Expectation of sustained adoption of [illegible] in good project time frame
5. Education and Communication Behaviour • Formal and non-formal communication systems within the community; between the community and the outside world. • Credibility of different media (Traditional/Modern) for different tasks (entertainment, development education, etc.) • Audio-visual perceptions; literacy rates; language/dialect. • Differential access to media. (Traditional/Modern)	• Media infrastructure beyond that community and leading into it. • Ongoing communication activities of relevance (e.g. ongoing health campaign). • Locally available equipment and materials suitable to community conditions.	• Design of education/communication strategy to be conducted through primary school, mothers' clubs, health extension cadres, functional literacy Phase II, etc. • Needed training of communicators

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