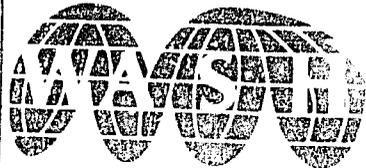


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WATER AND SANITATION
FOR HEALTH PROJECT

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DESIGN OF A SOCIOCULTURAL STUDY OF HOUSEHOLD WATER USE AND SANITATION PRACTICES IN DJIBOUTI CITY

WASH FIELD REPORT NO. 214

APRIL 1988

The WASH Project is managed
by Camp Dresser & McKee
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Research Triangle Institute,
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University of North Carolina
at Chapel Hill.

Prepared for
the National Committee
on Water, Sanitation and Hygiene,
Government of the Republic of Djibouti
WASH Activity No. 415

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Prepared for the National Committee
on Water, Sanitation and Hygiene,
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under WASH Activity No. 415

by

John P. Mason, Ph.D.
with the assistance of
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April 1988

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GLOSSARY OF ACRONYMS

DINAS	Direction Nationale de la Statistique (Djibouti National Office of Statistics)
DF	Djibouti Francs (176.5 DF = U.S. \$1)
EEC	European Economic Community
GROD	Government of the Republic of Djibouti
ISERST	Institut Supérieur des Etudes de Recherche Scientifique et Technique (Advanced Studies Institute for Scientific and Technical Research)
ONED	Office National des Eaux de Djibouti (Djibouti National Water Authority)
SPSS	Statistical Package for the Social Sciences
TAG	Technical Advisory Group
TCDC	Technical Cooperation for Developing Countries (UNDP)
WASH	Water and Sanitation for Health Project
WHO	World Health Organization
UNDP	United Nations Development Program
UNICEF	United Nations Children's Fund
USAID	United States Agency for International Development

EXECUTIVE SUMMARY

This WASH activity was requested by the Djibouti National Committee for Water, Sanitation and Hygiene. Its goal was to assist in developing a research methodology and a questionnaire to pre-test for the sociocultural and economic context of water use and sanitation practices at the household level in Djibouti City's low-income neighborhood. This information derived from the pre-test and the survey itself, planned for January-February 1988, is aimed at helping urban health and hygiene education planners as well as community organizers in developing appropriate designs and information programs for the households in the Old Quarters and Balbala. More importantly, the WASH effort was also directed at institutionalizing the sociocultural study methodology and its implementation in such a manner that Djiboutian social researchers and statisticians will be able to carry out similar studies of practical value to planners in the near future. WASH assisted in developing the questionnaire with a Djiboutian team to the point where a survey would be ready to implement in early 1988.

The sociocultural study was conceived so that it could become an integral function of the Government of the Republic of Djibouti (GROD) municipal administrative structure. During the WASH consultancy, effective support to the study was provided by the National Committee, especially by individual members who are committed to the overall goals of improving the life possibilities of the Old Quarters and Balbala populations.

The social context of the low-income quarters of Djibouti City is where the real work must begin. Understanding that context for purposes of improving the environmental health as well as general life conditions must commence immediately. In this respect, the role of women in the management of household water and of sanitary conditions in the home is paramount. Preliminary observations and interviews in the Old Quarters and Balbala, prior to formulating the questionnaire, substantiated the critical role of women. Female roles are depicted in some detail and several diagrams of household spatial arrangements of water use and storage are presented. Special emphasis is placed on descriptive analyses of waste water and excreta disposal.

The design of the sociocultural study was made in several steps. The first included preliminary field observations and interviews. Several open-ended interviews were carried out with residents of the Old Quarters and Balbala, mostly with women, concerning conditions and constraints surrounding water procurement, use, storage, and disposal. Interviews were also held with government officials to learn about their perceptions of the situation as well as their specific planning needs in urban design, promotion of household hygiene programs, and community participation. Relevant reports were also consulted and these are cited under references at the back.

The questionnaire design was divided into two parts: one for the woman head of household or the most responsible woman in the household in terms of household management and water-use practices; the second directed to the head of household, whether male or female, for purposes of obtaining data about preferences, capacity, and willingness to pay for specific water and sanitation services. It is suggested that more direct measures of household income be obtained through additional questions. Interviewers were selected according to their language and interviewing skills: three women and two men, sub-divided into three Somali speakers, one Arabic, and one Afar speaker. They were trained in the use of the questionnaire and supervised during their first interview. An attempt was made generally to pre-test the questionnaire to ensure some geographic and ethnic representativeness, even though the pre-test phase was not intended to fulfill the criteria of "scientific" sampling.

Preliminary and partial tabulations of the pre-test further underscore the already known fact that women play a critical role in decisions about managing water and sanitation matters. Women's head-of-household role in one-third of households interviewed reinforces their water and management role. This is very important for community and household health education programs.

The problem of makeshift house structure and the durability of construction materials is at least partly a function of low incomes, but also is related to restriction on land ownership and the right to build permanent structures (en dur). The safety hazards and public health problems posed by the general housing conditions are eminently clear and need to be addressed at a policy level.

Concerning toilet facilities, in the Old Quarters these are mainly latrines and are located invariably inside the house or compound. Several needs become readily apparent, mainly "safe" distance of latrines from water and food-use areas within the household and the provision of regular service to pump out filled latrine pits.

Ascertaining water sources in the Old Quarters and Balbala through the pre-test was complicated by the ingenious way in which water is "pirated" by hose from public fountains. Generally speaking, the questionnaire did not elicit many problems in the acquisition of water, though the disposal of household waste water onto the dirt road and pathways is a distinct health problem. Personal and household hygiene data derived from the pre-test imply a willingness on the part of the inhabitants to take these matters seriously in terms of a community health promotion campaign.

Finally, it is clear that the estimated role of unemployment and underemployment in the Old Quarters and Balbala mitigate against many households paying anything for new or improved services. The data point to the need for more refined income information at the household level in the revised questionnaire.

A three-pronged attack is essential to keep the sociocultural study on track. The methodology used in the pre-test must now be finalized for the January-February survey. A continued search for financial assistance must be pressed. And a training seminar in the use of sociocultural/economic data by planners should be fixed for April 1988. Only with the further support for developing and maintaining a survey research team can the full benefit of the study be realized and perpetuated.

As part of the January-February survey, a sociologist advisor should be procured immediately to work with DINAS (National Office of Statistics) and with a Djiboutian sociologist-in-training arranged through the Advanced Studies Institute for Scientific and Technical Research (ISERST). A survey research team including five interviewers, one or two field supervisors, one or two data coders, a data analysis specialist, and secretary is envisioned. In addition to a survey specialist, an individual with expertise in field observation and informal interviewing techniques is highly recommended. A calendar/work plan for the January-February sociocultural follow-on is presented. Finally, a planning meeting to work out details for the April seminar is suggested. That seminar should focus on the very concrete and practical applications of the survey findings to the needs and resources of families, households, and communities in the Old Quarters and Balbala. These findings must be interpreted in such a way that they are readily adoptable by urban, health/hygiene, and community planners for practical use in implementing their programs.

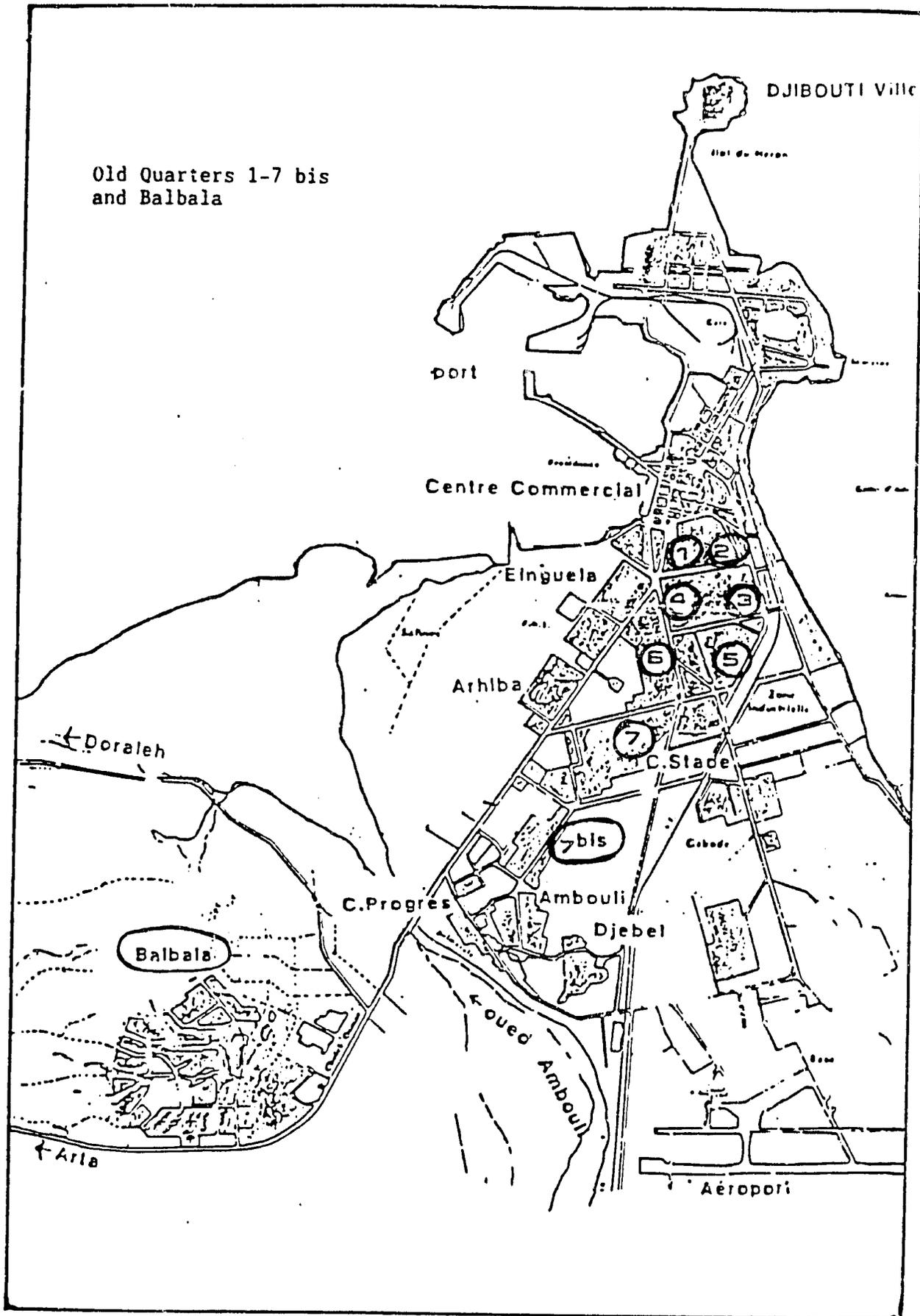


Figure 1. Map of Djibouti City

Chapter 1

INTRODUCTION

Requested by the Djibouti National Committee for Water, Sanitation and Hygiene, this Water and Sanitation for Health (WASH) Project activity provided assistance to the Committee in developing a social research methodology and an appropriate survey instrument--a questionnaire. Specifically, assistance was given to the Committee in the formulation of a sociocultural study of household water use and sanitation practices in the Old Quarters and the Balbala sector of Djibouti City. Major goals of the assistance included training in the development of a methodology for sociocultural research relevant to Djiboutian urban planners, health and health education planners, and community organizers.

1.1 Goals of the Assistance

The following are the major goals of the assistance rendered by the WASH advisor, a socio-anthropologist:

- a. to assist the Committee and its constituent members in developing a research methodology and questionnaire to field test for socioeconomic and cultural salience of water use and sanitation practices at the household level in Djibouti City's low-income neighborhoods--toward the aims of understanding these conditions so that more relevant planning can be carried out and of developing a greater capacity to carry out this type of research in the future.
- b. to sensitize and inform program planners to design and apply appropriate water and sanitation technology; and
- c. to establish health education and information programs for communities so as to improve usage and maintenance of installations.

1.2 Objectives of the Assistance

More specific purposes of the WASH assistance were directed at the present and future activity of upgrading the water and sanitation services and facilities of the Old Quarters and Balbala, with the aim of improving the inhabitants' environmental health conditions. More specifically, the assistance was directed at achieving the following objectives:

- a. to provide social, cultural, and economic findings useful to urban planners in their design and implementation of water and sanitation services and facilities in the low-income Old Quarters and Balbala;

- b. to provide relevant social and cultural data to health and health education planners relevant to their design of programs to raise the consciousness of residents concerning appropriate sanitation practices;
- c. to provide a methodology and techniques to community planners/organizers for use in eliciting the participation of residents in the development phases of improving their community; and
- d. to institutionalize the sociocultural study methodology and its implementation such that Djiboutian social researchers can carry out similar studies of practical value in the future.

The assistance included preparing the questionnaire and consultations concerning the selection of an appropriate sampling method so that the survey would be basically ready to implement in January-February 1988.

1.3 Background to Assignment

This assignment grew out of four earlier requests from the Government of the Republic of Djibouti (GROD) to the U.S. Agency for International Development (USAID) for assistance in developing training and training-related activities in support of urban water and sanitation initiatives in Djibouti City. Urban sanitation conditions had become increasingly severe in the capital (and sole) city in Djibouti. Distinct constraints existed, especially in the areas of systems operations, management and maintenance, inter-agency coordination, and manpower.

Thus, in late 1986, a WASH visit to Djibouti helped to lay the groundwork for the major goal of USAID training assistance to "reinforce GROD capacity to analyze, plan, execute, and evaluate activities in order to deal with the problems of urban sanitation, with particular emphasis on individual household excreta and wastewater management" (WASH Field Report No. 200, January 1987). An earlier visit by WASH to Djibouti, following a request by the USAID Representative there, was directed at WASH support of possible future USAID program assistance for upgrading infrastructure in certain squatter and refugee settlement zones.

The training initiative which evolved out of the GROD and USAID requests to WASH included a broad range of training activities which would unfold over the subsequent two years. Specifically, a set of workshops or seminars was supported by USAID which would bear directly on the area of community organization for health and sanitation education of the families of the low-income zones of Djibouti City.

One outcome of the training assistance missions funded by USAID, including a workshop in February 1987 for Djibouti decision-makers from ministries and agencies involved in provision of water and sanitation services, was the pinpointing of technical assistance needs. A particular need focused on community organization for health and sanitation education purposes. Because community organization is one of the more challenging areas of intervention and in the absence of systematic information on Old Quarters and Balbala community systems, a sociocultural study of sanitation at the household level was urged in discussions with Djiboutian officials.

Chapter 2

ADMINISTRATIVE AND SOCIAL CONTEXTS OF THE STUDY

The goals and purposes of the sociocultural study have been supported fully by the National Committee on Water, Sanitation, and Hygiene. Active participation from agencies having a stake in the study was elicited through the Committee and its head, the "Commissaire of the Republic" (the Mayor of Djibouti City). These agencies include, among others, the Hygiene and Epidemiology Service, Human Sciences and Renewable Energy Center, National Statistics Office, Sanitation Section of the Public Works Ministry, National Office for Water, and National Union of Djiboutian Women. The Technical Service division of the District of Djibouti City serves as a locus for the Committee and its coordination. These agencies' active participation seems to be based at least in part on the "stakeholder" concept, by which their taking ownership of the activity will in fact make it theirs. Furthermore, these agencies will thereby be committed to carrying out the full-blown survey in January and February 1988 as well as performing similar studies in the future.

2.1 Administrative Context

In the context of designing and implementing socioeconomic/community organization research and application, there has been a limited capacity in the GROD to date. A few well-trained Djiboutian sociologists are present in the work force (meaning, mainly the government) and are at a premium. The one active sociologist on the National Committee, Guedda Mohamed Ahmed, has supported the present research in an effective manner. While the sociologist's full participation is a most desirable outcome, the possibility of making interagency transfers such as this would require bureaucratically complex maneuvers. Despite his already heavy workload, his continued support of the sociocultural study is symbolically as well as functionally important.

The National Committee, as mentioned earlier, continues to play a key role in supporting the sociocultural study as well as providing training in sanitation and hygiene education activities. This Committee is itself an outgrowth of a proposed Presidential Commission for Water, Hygiene, and Sanitation. While the proclamation establishing such a commission had not been signed by the President at the time of this consultancy (November-December 1987), it did exist in draft form. Nevertheless, the standing committee is functioning effectively and has held half a dozen meetings in support of the WASH advisor's facilitator role in the sociocultural research. The Technical Service of the District of Djibouti City provided certain logistical support during the consultancy.

Specific assistance in facilitating the preparation of the pre-test instrument for the sociological research was rendered by the sociologist, Guedda, of the Advanced Studies Institute for Scientific and Technical Research (ISERST), who provided a highly instructive, morning-long observation-interview reconnaissance of the Old Quarters and Balbala from the sociological perspective.

Ethnic and socioeconomic differences were underscored between the eight quarters and Balbala. Interviews were held with several household heads, all women in this instance, in order to obtain information useful for preparation of a questionnaire regarding sanitation and water use practices. Guedda, earlier, had also provided a questionnaire checklist/framework which was used during the question-formulation phase.

A second, extremely useful, half-day tour was given by Hygiene and Epidemiology Services Deputy Director, Dr. Ahmed Mohamed Hassan. Because Dr. Ahmed is well known in the low-income neighborhoods of Djibouti City, he was able to obtain access to a number of different types of residences. Each interview with a household head or co-head, also all women in these cases, underscored one or several significant points about the relationship between health and sanitation practices and hygiene quality of the household or the surrounding community.

Yet a third instructive visit to the Old Quarters was provided by the National Water Services' Deputy Director, Ali Youssouf Guedi. This tour focused on the improvements in road drainage and water service to the Third Quarter of the Old Quarters. This work, carried out under World Bank and USAID financing by the Djibouti Urban Development Project, has introduced certain highly beneficial changes to a formerly debilitated neighborhood. The tour highlighted several important ways in which the other quarters might benefit from further assistance.

A small nucleus of statisticians in the Direction Nationale de la Statistique (DINAS--National Office of Statistics) ultimately took considerable responsibility for the review and redrafting of the questionnaire.

The DINAS team participated actively and seriously in refining questions in some detail, not only for coding and statistical analysis purposes, but also to give the questions a greater sense of social and cultural reality. DINAS, furthermore, took responsibility for obtaining some of the interviewers and in training the interviewers for the pre-test phase of the questionnaire. These members of the Statistics Office, Messrs. Djama Mohamoud Ali, Idriss Ali Sultan, and Gérard Chenais, with the support of their Director, M. Abdourahman Doualeh Farah, played yet another critical role in the process of developing the sociocultural study--that of supervising interviewers in the field pre-test of the instrument.

The DINAS office has indicated it will take responsibility in selecting the sampling method to be used in carrying out the January-February survey. A suggested mode of sample selection is to use the Office of Census population framework with subdivision of quarters into "blocks" which would then be sampled according to their proportion of the population in the Old Quarters and Balbala. This will, of course, require cooperation between DINAS and the National Office of the Census and assumes that the population figures for the block level are available. Such cooperation would facilitate greatly the implementation of the study.

2.2 Social Context--The Larger Setting

Djibouti City is home to an estimated two-thirds of the nation's population (DINAS 1965, Ref. 13). The Old Quarters of the City (Quarters 1-7) are densely populated and have a limited water and sanitation infrastructure of variable quality. This section is the oldest residential area in Djibouti City and many of the families have lived there for several generations. Some of the houses in the Old Quarters are hooked up to the municipal water supply. Balbala, a squatter area (bidonville) which has grown at the outskirts of the City since 1968, has few urban services and most housing is substandard. Balbala is currently home to a population whose estimates vary widely between 60,000 and 100,000. It continues to expand due to migration from the countryside and displacement from the urban core. Since Balbala is a recent, unplanned settlement, it lacks some of the municipal services found in more established areas. For example, there are no private water connections, requiring that all water must be obtained from public fountains or vendors. In both the Old Quarters and Balbala the rate of unemployment and underemployment is very high.

2.3 The Role of Women in the Management of Household Water

Although there have been no published results of an intensive household budget and consumption study undertaken in 1986 nor a systematic analysis of the organization of the domestic sphere, the fact that women are primarily responsible for water, hygiene, and sanitation practices at the household level is widely recognized. That fact also became clear from the observations and interviews carried out during the tours made early in the WASH activity. The important role of Djiboutian women and their concern with adequate water and sanitation has been documented, although peripherally, by several recent studies concerned with health care delivery systems and the prevention and control of infant diarrhea.

A 1985 GROD/UNICEF/WHO study (Ref. 15) states that the infant mortality rate in Djibouti is 200/1000, one of the highest rates in the developing world; diarrhea-related diseases account for almost half of the infant deaths in the capital. Klenicki (1987) cites the inaccessibility of adequate water as a major contributing factor to this situation; she reports that only 53 percent of the urban population has easy access to water. Similarly, Cook (1984) found that one of the daily preoccupations of the mothers who participated in his study of primary health care was the provision of sufficient water to the household. UNICEF's (1986) program to counter diarrheal disease in Djibouti emphasizes once again the importance of adequate water sources and storage, and stresses the role of women in creating and maintaining a healthful home environment through improved sanitation practices and mother/child hygiene education.

Based on observations in the Old Quarters and Balbala, a preliminary sketch of women's roles in the domestic domain depicts many homes there without running water. In the Old Quarters, a household often procures water by hose connection from the neighbor's tap for several hours a day; one frequently sees hoses stretched for long distances over the dirt streets and alleys of the Old Quarters. Since the owner of a water tap may supply several families

with water, the hose connections may be changed several times over the course of a day. Young girls were often observed dragging the hose connections from one house to another. Households which receive water from private sources are charged a monthly fee of 1500-2000 DF (U.S. \$8.50 to \$11.50) by the owner, although reduced rates and free access for the unemployed have been reported.

Water is also carried in pails and buckets from public fountains and from friends' and relatives' houses. This laborious chore most often falls upon women and young girls. One woman reported that she obtained water for free from a relative's house; however, it took approximately one hour per day to make the round trip between her home and the source. In another instance a family had a hose connection to a neighbor's house for a few hours per day, but storage was inadequate for bathing purposes; a teenage daughter was delegated to restock the family supply by carrying several buckets of water drawn from the neighbor's tap.

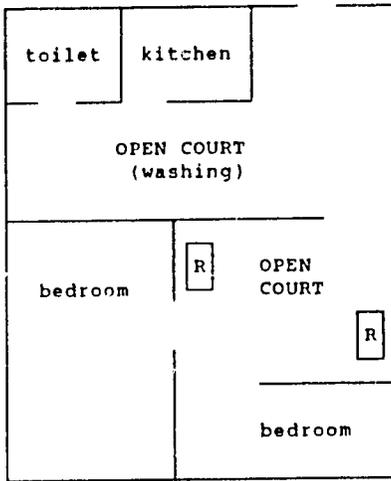
In Balbala there are two primary sources of water: public fountains and vendors who deliver water by truck or donkeys. Hoses were observed stretched from a public fountain with ten or more taps. A woman was also seen filling large plastic jugs with water to tote home. The "guardians" of the public fountains, who Cook (1984) reports charge a fee for use, were not observed. Also in Balbala a cluster of makeshift houses far from the public fountains was visited. A dozen or more 200-liter metal drums for water storage were located between these houses and the road way; each was owned by a family who purchased the contents from a truck vendor for 100 DF. The city requires truck vendors to be licensed and to be inspected; the truck's use is restricted to water vending (Vincent n.d.). Some parts of Balbala are inaccessible by truck; in these areas water is purchased from vendors who haul water in tins lashed to a donkey's back.

2.4 Water Storage, Use, and the Household Division of Space

In the Old Quarters, most households observed, including those with running water, stored water for future use. Substantial variations in the type of storage containers used (e.g., metal pails, plastic containers, earthenware jars), their size, and whether or not these were covered were noted. Secondly, while some households kept drinking water in separate containers, others maintained a common stock for all uses. However, in all cases the women interviewed maintained that water used in the latrines and the vessels used for washing after latrine use were kept separate from water and vessels used for other purposes.

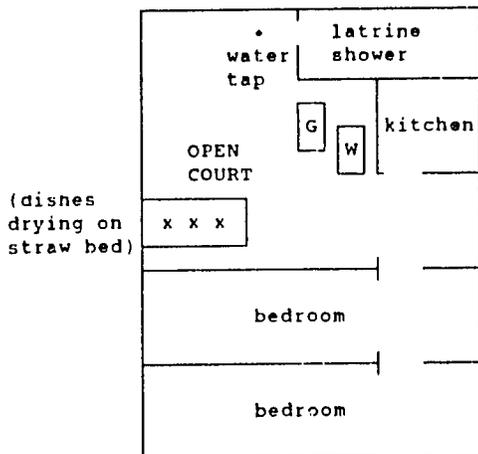
Within the households observed, separate areas were used for specific purposes, such as preparation of food, clothes washing, showering/bathing. The women interviewed demonstrated an awareness of basic hygiene and the purposes of keeping water reservoirs sanitary. However, due to the small areas of most households, the frequent problem of full or close-to-full latrines, and the presence of flies, techniques for improved household sanitation and maintenance should be included in future health education activities.

The following schematic diagram provides examples of the households observed, in terms of how different uses of water are arranged spatially.



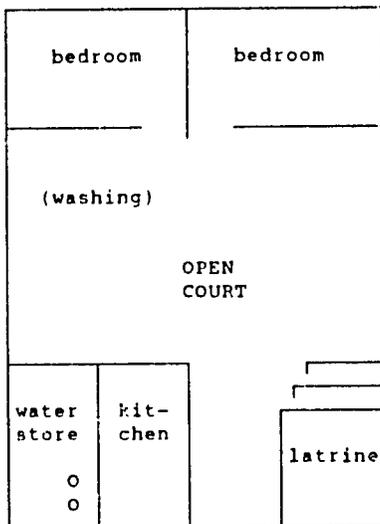
House 1: Quarter 6

- Cement floor/walls
- Tin roof
- Running water/modern flush toilet
- Clothes washing in open court
- Refrigerators (R)



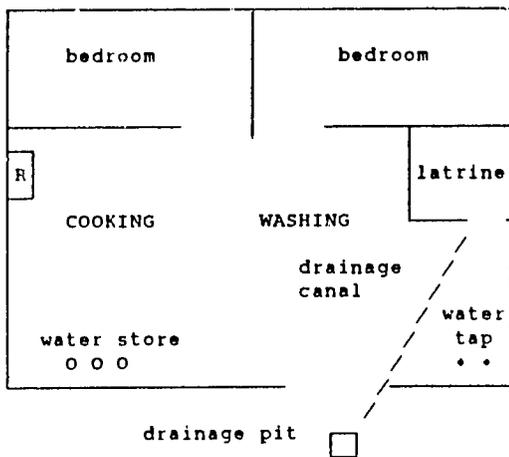
House 2: Quarter 2

- Cement floor
- Tin and wood walls/tin roof
- Running water
- Latrine/Shower - leakage problems
- Dishes drying in open court
- Garbage (G) uncovered next to Covered (W) water stock



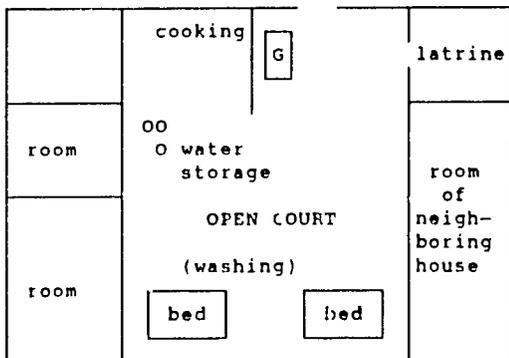
House 3: Quarter 6

- Cement floors/walls
- Tin roof
- Water received by hose and stored
- Latrine is elevated above ground level; presently full to capacity
- Clothes washing in open courtyard



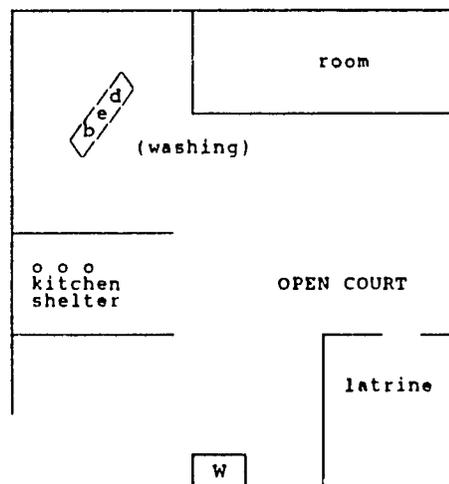
House 4: Quarter 6

- Cement floor/tin walls
- Running water but taps were dry on the day observed
- Covered water storage in earthenware jars
- Drainage canal from latrine and tap area to exterior of house
- No open courtyard
- Poor ventilation in latrine; was close to capacity on the day observed



House 5: Quarter 6

- Broken cement floor
- Tin/wood walls
- No running water, water obtained from house across street (house 4 above)
- Water stores kept uncovered
- Garbage left in heap/uncovered
- Latrine elevated; shared with neighboring house
- Shed for cooking



House 6: Quarter 6

- Dirt floor
- Latrine full
- No running water
- Water stored in large plastic container, unused portion disposed of daily
- Potable water in kitchen, kept in covered metal containers
- Water from neighbor for free because unemployed
- Absent landlord/family can't afford to have latrine drained

2.5 Household Sanitation

Two major household sanitation problems were identified: the disposal of waste water and the elimination of human excreta.

Waste water from washing clothes and housecleaning is commonly thrown onto the earth in front of the house or directly on the dirt roadway. Because of population density and household frontage onto the common way, often an unpaved road, this practice effectively results in throwing the water into the street. Since drainage is not adequate, the roads become muddy after waste water is thrown on them by several households. This is not only a nuisance to passersby but a health hazard to children who often play in this common space. Even in the Third Quarter, which has benefited from widened roadways and new drainage systems, children were seen splashing through the gray water in the above-ground canals.

Women frequently reported that water from bathing and showering was evacuated through the latrine drainage system. However, the WASH observers saw many latrines which were either full or close to capacity. Therefore, water from bathing may actually find its way to the street.

The problem of full latrines is widespread in the Old Quarters. In some areas, depending on the soil, latrines must be evacuated 2 to 4 times a year. This is an expensive operation, costing about 2500 DF (U.S. \$14), and it seems evident that some households cannot afford this cost. One woman who headed a household with no regular source of income reported that her landlord, who was working overseas, was responsible for latrine maintenance; until he forwarded money or returned, the family's sanitation problem would not be remedied.

The latrine pit opening was often found uncovered. In some cases ventilation of the latrine area was extremely poor and odors were a substantial problem; more importantly, uncovered latrine pit openings attracted flies, a recognized disease vector which could be controlled quite easily by educating women and other family members to keep the latrine opening covered.

Even in some of the most impoverished households of the Old Quarters the latrine area was kept very clean. The most common cleaning technique employed water and a small hand broom. It was noted, however, that the same hand broom was used to sweep the central courtyard and other rooms of the house. Again, instruction concerning improved household sanitation and hygiene could change this practice.

In some parts of Balbala communal latrines are in use. These are built, used, and maintained by five or six families. The examples that were observed were situated in a long row, apart from the households; they were constructed on top of mounds of debris, the elevating of which increases the capacity of the latrine pits since there is bed rock just beneath the surface. Some latrine structures were well built, while others were in a state of disrepair. At least one latrine had a cracked and unstable platform; another had a large open space between the platform and the pit--again a problem for breeding flies and mosquitoes. Despite these difficulties, the cooperative efforts of several families in sharing latrines should be recognized and incorporated into planning/education for improved sanitation in the Balbala area.

Chapter 3

DESIGN OF THE SOCIOCULTURAL STUDY

The design of the sociocultural study was made in several steps, each of which is outlined below. Throughout the design process, Djiboutian government officials and interviewers participated actively. As the study began to crystallize, their participation evolved into ownership of that process. At the end of the design process, the Djiboutian counterparts were in ownership of the product, i.e., the questionnaire, the methodology, and finally, the results of the pre-study itself.

3.1 Preliminary Field Observations and Interviews

As described in Section 2.1, observations of household water use and sanitation practice in the Old Quarters and Balbala were made with a public health physician and a sociologist, on separate occasions. In addition, observations were made in the improved quarter, Quarter 3, with a water agency official. These observations provided a firsthand view of the conditions, potentials and constraints present in the low-income quarters of Djibouti City.

Several open-ended interviews were carried out with residents of the Old Quarters and Balbala, mostly women, concerning conditions and constraints surrounding water procurement, use, storage, and disposal and the different sanitation practices used at the household level. As discussed in Sections 2.3 to 2.5, observations were made of several homes in addition to these interviews. The interviews and observations made in the field together provided considerable information for formulating the research design in general and the survey questions specifically.

In addition to the field tours directed by government officials, several interviews or meetings were held with officials in technical offices of different ministries. Included were M. Hassan Robleh, Chief of Technical Services of Djibouti District, and Architect-Planner and Urbanist in the same office, M. Francis Gaudebert. Interviews were held with Dr. Christian Bailly of the Hygiene and Epidemiology Service and his deputy, Dr. Ahmed, and with Mr. Mahmoud Ahmed Awale, Chief of Sanitation and Voirie, Ministry of Public Works, to discuss their role in contributing to improved environmental health conditions.

An interview early on in the consultancy was held with the Louis Berger, Inc. Chief of Party for the Djibouti Urban Development Project, Mr. William Rounds (World Bank and USAID-sponsored). This project is responsible for the planning and design of the upgraded Third Quarter, as well as future upgrading in the Old Quarters.

Other meetings with parties having an interest in and knowledge of the water, sanitation, and hygienic conditions included WHO representative, Dr. Habiba Wassef; European Economic Commission (EEC) delegate, Mr. Emilio Perez Porras,

and technical counselor, Mr. Fabio de Micco; UNDP resident representative, Mr. Hohsen Boulares; UNICEF program chief, Dr. Hadla Kyriakos, and program assistant, Ms. Leila Abrar.

Because of the highly important role of women in the domain of water use and sanitation practices and their critical part in the sociocultural study, the National Union of Djiboutian Women became a very effective channel for making contacts with women, particularly in helping to locate female interviewers for the pre-test stage.

3.2 Questionnaire Design

In addition to the preliminary observations and interviews which aided in the development of questions for the sociocultural study, several other sources were utilized. Existing reports were consulted for general water, sanitation, and hygienic linkages, as well as for specific linkages in the context of Djibouti. An example of the first is World Bank TAG reports on water and sanitation, while an example of the second is USAID studies in health care and women in Djibouti. (See references at end of text.)

It was mainly through careful observations in the Old Quarters, aided by the use of photography to underscore water use and sanitation practices that the relationships which would inform the questions began to crystallize. In this respect, the assistance of a female anthropologist provided access to Djiboutian women. Her presence in Djibouti for over half a year to carry out modernization research brought insightful perception of the issues, which was indispensable to the overall effort.

Individual members of the National Committee reviewed a preliminary draft of the questionnaire. The major review and recasting of questions was done by DINAS (National Office of Statistics) with the support of the WASH advisor and Ms. Cutbill. UNICEF's Leila Abrar, a Djiboutian, brought to the design team's attention health and personal hygiene reports which generated ideas for the questionnaire.

It was observed during the review and redesign of the questionnaire that the questions seemed to fall out along two lines. One was "women's work" or, more specifically, the knowledge possessed by those persons (women) most closely associated with water use and household sanitation practices. The other was the role of heads of households, both men and women, in deciding on matters of household expenses, including opinions about capacity and willingness to pay for certain water and sanitation services. For this reason the questionnaire was divided into two parts: one for the "woman head of household" or, in her absence, the "next most responsible woman in the household" (i.e., the woman who was in charge of daily household management and water-use practices); the second part was directed to the "head of household", whether male or female. The division was made because it was realized that the head of household would often be absent at the time of the interviewer's visit. It was stipulated that an appointment would be made to question the head of household at a later time. In a number of cases, the "next most responsible woman" (the one who managed the household) was questioned about financial matters in order to test the possibility of significant differences between that person and the head of household, whether male or female.

3.3 Training of Interviewers

An additional review of the questions was provided through the forum of the interviewers' training. Since interviews were to be carried out in the three major languages spoken in Djibouti (in addition to French)--Somali, Afar, and Arabic--interviewers were selected to represent the respective languages. All interviewers were also required to have a strong competence in French. The training of the interviewers (three women and two men)--Amoun Mohamed, Ahmed Mahamoud, Saïd Egueh (Somali speakers), iman Mahfoud (Arabic speaker), and Saida Mohamed (Afar speaker)--itself brought out certain salient points. For example, clear distinctions were raised concerning female and male water use practices. As well, the position of head of household was discussed at length with the interviewers, highlighting the issue of authority for men and women.

As part of the pre-test and continuing design process, the DINAS team with the assistance of the WASH advisor and Ms. Cutbill provided training supervision of the interviewers during their first day in the field, i.e., in the Old Quarters. These initial interviews also provided feedback which will be reflected in the revised questionnaire.

3.4 Field Test of the Questionnaire

A period of three and a half days was spent in field interviewing as part of the pre-test. Each of the Old Quarters was represented in the pre-test by the number of interviews shown in the following table, further sub-divided along lines of ethnicity established through the language spoken by the respondent:

Number of Households Interviewed
According to Quarter and Ethnicity

QUARTER OR ZONE	LANGUAGE/ETHNICITY		
	SOMALI	AFAR	ARABIC
1	-	-	1
2	5	-	1
3	8	1	-
4	-	-	6
5	6	-	-
6	7	-	-
7	23	2	2
7 BIS	6	-	-
ARHIBA	-	-	-
BALBALA	17	4	-
TOTAL	72	11	10

While neither the Quarters or zones themselves were sampled in any manner approaching randomness, nor the different ethnic groups represented proportionately, an attempt was made by the pre-test team to ensure a modicum of both geographic and ethnic representativeness. The rationale for this is that the pre-test phase of the questionnaire simply does not require the strict randomness or representativeness which will be required of the January-February survey.

Chapter 4

SUMMARY RESULTS OF THE PRE-TEST AND PRELIMINARY RECOMMENDATIONS

4.1 Some Suggested Trends

The pre-test took place over four days, 2-5 December, which included a Friday (Muslim day of rest) in order that heads of household would have a better chance of being found at home on the first visit. In total, 93 households were questioned. In about two-thirds of the households, two individuals were interviewed--the male head of household and the woman most responsible for household management. Only one outright refusal occurred.

Given the time constraint of the WASH consultancy--just over three weeks in Djibouti--it was determined before departing Washington that the entire pre-test would not be tabulated for every question during the consultant's visit. For purposes of this report, a brief, summarized presentation of illustrative data is provided. It is underscored that these data should not be interpreted as definitive, but only as suggestive of certain general trends. Furthermore, once the entire tabulation is completed and relevant statistical tests made for internal consistency, decisions can be made in detail about which questions to alter or, in some cases, eliminate. DINAS has already begun this task. The data are generally separated according to (a) existing conditions (Sections 4.2 to 4.11), (b) household hygiene and sanitation (Section 4.12), and (c) preferences, capacity, and willingness to pay (Section 4.13).

4.2 Women

As was suspected at the outset, women clearly play an important role in decisions about managing water and sanitation practices. Reinforcing her role as a "manager" is the fact that in almost one-third of the households interviewed the woman was herself the head of the household. Female heads of household were found to occur in cases where women are widows or divorced or where the husband was working out of the country or living in another location with a second wife. This finding is important as concerns community-based health education programs.

4.3 Owners/Renters

Owners outrank renters by more than two to one. Such owners, while proprietors of their houses, do not own the land on which their houses are located. The implications of this for landholding policy and the right of a house owner to build permanent structures (en dur) are clear.

4.4 House Structure

External structures of houses in the Old Quarters and Balbala alike show a tendency of being constructed almost equally of either corrugated tin or wood planks. In some cases both tin and wood are mixed in the same structure, all houses have tin roofs and only a few are made of solid materials (block). This last point underscores the illegality of building in the Old Quarters or Balbala in solid materials, a situation reflecting the fact that generally land there is not presently owned by current inhabitants.

4.5 Floors

Approximately three-fifths of the house floors were made of cement, while about two-fifths consisted of dirt floors. A self-help construction program in the Old Quarters and Balbala based on construction supervision and a small building materials/small loan program would go a long way towards rectifying the unsanitary conditions posed by dirt floors.

4.6 Number of Habitable Rooms

About one-third of the households questioned have one habitable room, i.e., a room in which eating, sleeping, and leisure activities all take place. Two-fifths have two habitable rooms, while one-fifth possess three, both cases of which represent favorable living and health conditions when contrasted with just one room. Of course the number of persons using those rooms and the square footage bear on the matter. Also, many homes have an interior courtyard which is the site of many activities and in some respects compensates for the low number of rooms. Nevertheless, in terms of hygiene and personal privacy, more than one room certainly would seem advisable. Some solution to this situation could be provided, such as self-help construction assistance in adding or subdividing for an additional room, provided space is available.

4.7 Location of Toilet/Latrines

In the Old Quarters toilet facilities are located in individual homes or compounds without exception; toilet facilities located outside of the dwelling are found in Balbala. Given the limited living space in the housing of the Old Quarters, the proximity of the toilet facilities, which are mostly latrines, to areas used for food preparation, water storage, and dish washing increase the possibility of contamination. Wherever possible, in both planning terms and in relation to community health promotion for households, a "safe" distance of latrines to the above-mentioned areas should be actively advocated.

4.8 Toilet Facilities

Only four homes included in the pre-test possess flush toilets; almost all of the other households questioned have pit latrines. Commonly these are concrete slabs with "Turkish style" foot blocks over a pit, and enclosed in a small roofed room. The pits vary in depth among different households and the different city quarters. The capacity of the pits and the rate of drainage is effected by the fluctuation of the water table, especially in the First and Second Quarters of the City. In several of the quarters located further from the sea there is a serious problem for some households of latrine pits which are filled to the top, creating a health hazard as well as the inconvenience of not being able to use the latrine. Where latrines are emptied, this is generally done by trucks which pump out the waste. One remedy for the problem of filled latrine pits could be support to the private sector or outright government-supported service to pump out latrine pits on a regular basis into tank trucks designated exclusively for this purpose.

4.9 Services

The major services provided through government agencies or under government auspices are electricity and water. About two-thirds of the households indicated they had electricity, though that proportion does not necessarily indicate whether they pay for it or not (still-untabulated questions provide data on monthly expenditures for both electricity and water services). Water service or, more aptly, availability, was noted by two-thirds of the households, though the distinction is not clear as to whether that includes direct piped delivery or by hose from an external source or, yet a third, carried from a fountain. These proportions are discussed under the next heading.

4.10 Water Source

Interestingly, the data on water sources show that about one-third of households interviewed have piped water directly into their houses. Such a proportion reflects the presence of a significant level of direct hookups to the water main in Old Quarter houses. On the other hand, with the exception of new government housing, there is virtually no water main connection to individual houses in Balbala. In both the Old Quarters and Balbala there is considerable use of garden hoses hooked to public fountains to bring the water directly into the house and in the Old Quarters the same use of hoses but attached to a neighbor's tap. In the case of connections to public fountains, the water is drawn free of charge, while for the connections to a neighbor's tap a fee is often paid for by the borrower directly to the tap owner. In short, there is not as much carrying of water for long distances as might be expected except in some Quarters and Balbala where the demand for water outpaces the availability of public fountain spigots to hose the water directly into the house. Even when water is carried it is only over short distances. Vendors also preclude the need to carry water over long distances. The present system is very economical to those who use water without paying, but clearly uneconomical to the supplier, i.e., the government agency (ONED). Despite the absence of perceived problems with the water source reported in the pre-test, a larger sample of households will most likely clarify the existing conditions.

4.11 Disposal of Waste Water

Most households reported that waste water is thrown onto the soil in front of the house or directly into the street. One positive result of this practice is that it settles dust; however, after several households dispose of water in this manner the soil and roadways become muddy; standing water is not covered with dirt and thus becomes a breeding site for mosquitoes. This method of disposing to water outside the home lessens the strain on the presently overburdened latrine pit systems, but the hazards to public safety and community hygiene which it produces are evident. Suitable methods for evacuating household waste water should be considered in future planning efforts; these might include eventual household hookups to public sewers or the construction of drainage systems in the roadway which are designed to handle the volume of waste water expelled from neighboring homes.

4.12 Household Hygiene and Sanitation

Of the pre-test respondents, only four households report that they share latrine or toilet facilities with other households. Two out of every seven respondents indicated a willingness to share improved toilet facilities with a neighboring family; those who do not find this practice acceptable frequently state that sharing facilities is not hygienic and that it is not appropriate since "this is a private matter."

The most common method of cleaning the latrine area employs water and a broom, although about half of the households also use some form of soap or detergent. As many households keep the latrine pit opening covered when not in use as do not. The relationship between a covered and non-covered pit opening and the presence of disease-carrying flies is one which lends itself well to being explained in a community hygiene awareness and education program.

With regard to personal hygiene, the pre-test included a question on the frequency of bathing and showering. The interviewers found this a rather sensitive question to pose, and the answers may indeed be skewed by the respondent's conception of socially acceptable practices. One-third state that they bathe once a day; half report that they bathe twice daily, and the remaining interviewees say they bathe three or more times per day, especially in the hot season. Religious ablutions were not included in the questionnaire as a form of personal hygiene. This practice could well be considered in the revised questionnaire.

4.13 Preferences, Capacity, and Willingness to Pay

Generally speaking, when households in the Old Quarters and Balbala were questioned about their preferences and willingness to pay for specified improvements in service delivery, they chose to stick with the present mode rather than pay more than they do already. In certain cases, that means continuing to pay nothing for services such as water and electricity when these are "pirated". Very little willingness to pay for an upgraded water

source, a closer source of water, or an improved toilet facility is demonstrated in household responses. Yet, when it comes to the desire to remain in one's present house while paying for new or improved services in contrast to moving to a new housing project, the overwhelming preference is to stay in place. Furthermore, there seemed to be only mild interest in the possibility of borrowing funds for home improvement or new house construction. These distinctions help establish some priority of preferences.

And although capacity to pay for improved services or upgrading an existing house is not pinpointed by pre-test questions, there is little doubt that the estimated rate of unemployment and underemployment in the Old Quarters and especially Balbala mitigate against many households paying anything for new or improved services. These data clearly point to the need in the revised questionnaire for certain refined household income data.

Chapter 5

NEXT STEPS

A three-pronged approach is necessary to keep the sociocultural study on track. First, the research methodology developed and tested in the pre-test must now be finalized for the January-February survey. Second, the continued quest for financial assistance must be pressed forward so the study itself can be realized. Furthermore, such assistance is essential for the institutionalization of the effort to take place. Third, the significance of the entire sociocultural study activity, including its importance for planners and low-income communities in Djibouti alike, should be packaged and disseminated in a training/seminar program--recommended for April 1988. Only with a continued training effort and further support for developing and maintaining a research team can the full benefit of the study be realized and perpetuated.

5.1 Procurement of a Sociologist for the January-February Survey

Assuming that the provision of necessary funding is possible, completion of the survey methodology and instrument can now be effected in a timely manner. Hiring a sociologist for the two months of the survey is a related priority. Such procurement can be pursued through the Technical Cooperation for Developing Countries (TCDC) technical exchange program implemented by the UNDP, through an arrangement with another donor agency, or perhaps some combination of these two. The sociologist advisor would work closely with the DINAS research team and Djiboutian sociologist-in-training, who must be located as soon as possible. These aspects of the institutional support activity are essential for overall success.

5.2 Formulation of Sampling Methodology

(The sample frame will be detailed by DINAS at a later date, when it has completed its discussions about how to most practically determine that frame. The section heading is retained in order to underscore the fact that the sampling methodology is presently under consideration. (Also see Section 2.1.)

5.3 Selection and Training of Survey Research Team

Again assuming the availability of financial assistance, selection and training of the following research personnel are necessary:

- one or two field supervisors;
- one or two data coders/data entry specialists;
- one computer data analyst possessing working knowledge of micro-computer statistical analysis software packages (e.g., SPSS, Statpak, among others); and
- one secretary/word processing specialist.

A review of the quality of work of the present interviewers should be performed and any changes in personnel necessary made, followed by very short-term re-training of interviewers to take place at the outset of the January-February survey.

5.4 Formulation of Research Analysis Framework

Certain very basic statistical operations at the pre-test stage were envisioned, prior to the WASH advisor's arrival in Djibouti, in designing the questionnaire. Such operations as cross-tabulations and chi square (X^2), for example, were then foreseen for the January study. Where relevant, regression analysis was also thought to be useful. Coupled with a sensitivity to sociocultural patterns at the community level--as interpreted from findings made through participant observation, focused group and open-ended interview techniques--the statistical analysis of the January study should yield salient findings for interpretation by urban, health, and health education planners.

5.5 Continued Use of Observational and Interview Techniques

An important part of the work of the sociologist advising on the January survey, including the training of the Djiboutian sociologist-in-training, is the continuation of first-phase participant observation and open-ended interviewing in the community at the household-family level. However well the questionnaire registers Old Quarters and Balbala low-income families' needs, preferences and capacities to participate financially and socially in the upgrading of their neighborhoods, their responses must be continually checked against findings based on firsthand observations and directed conversations.

5.6 Timetable for the January-February Sociocultural Survey and Follow-on

The following table summarizes the activities supported by this and preceding WASH activities which must continue to see the sociocultural study to its effective conclusion. These activities are listed by week and responsible office.

<u>Week of</u>	<u>Activity</u>	<u>Responsible Office</u>
13 December	(1) Draft manpower needs assessment for survey research team	COMITE with DINAS/ISERST
	(2) Draft needs assessment for data processing equipment and transportation	" "
	(3) Draft workplan for second phase sociologist	" "
	(4) Approach financial sources for support	COMITE
	(5) Begin arrangements for second phase sociologist	COMITE/DINAS/ISERST

<u>Week of</u>	<u>Activity</u>	<u>Responsible Office</u>
20 December	(6) Formulate sampling methodology and	DINAS
	(7) Begin design of sample selection format	DINAS
27 December	(8) Draft and review list of candidates for sociologist-in-training and survey research team positions	DINAS/ISERST
3 January	(9) Arrival of second phase sociologist	
	(10) COMITE review of sociologist's work plan	COMITE
	(11) Finalize survey questionnaire	COMITE/DINAS/ISERST
10 January	(12) Finalize selection of interviewers and begin refresher training and new training of survey research team personnel	DINAS
17 January	(13) Begin implementation of survey in field	DINAS
24 January	(14) Continue implementation, begin coding, data input	DINAS
	(15) Begin data processing	DINAS
31 January	(16) Continue administering survey	DINAS
	(17) Continue data processing and begin data analysis	DINAS
7 February	(18) Continue administering survey (final week)	DINAS
	(19) Review findings to date with COMITE	DINAS
	(20) Begin interpretation of data and final report writing	DINAS/ISERST
14 February	(21) Continue final report writing	DINAS/ISERST
	(22) Review draft final report with COMITE	

<u>Week of</u>	<u>Activity</u>	<u>Responsible Office</u>
21 February	(23) Finalize report	
	(24) Conduct short-term workshop for senior urban, hygiene, community planners to plan for 2 to 3 day April seminar for urban planning, health and health education planning, and community organizer personnel	COMITE

5.7 Planning of Follow-On Seminar

In order to effectively interpret the sociocultural survey findings and recommendations to urban planning, health and hygiene planners/educators and community organizers, a two- to three-day seminar in April is envisioned. An end-of-survey pre-planning workshop should be held while the second-phase sociologist is still present toward the end of February. A draft agenda and list of participants should be the outcome of that workshop. It is clear that the training seminar proposed for April must focus on the very concrete and practical applications of the survey findings relevant to the needs and resources of families, households, and communities in the Old Quarters and Balhala. Equally, the findings must be interpreted in such a manner that they can be readily adapted and adopted by urban, health/hygiene, and community planners for practical use in their respective programs.

PHOTOGRAPHS

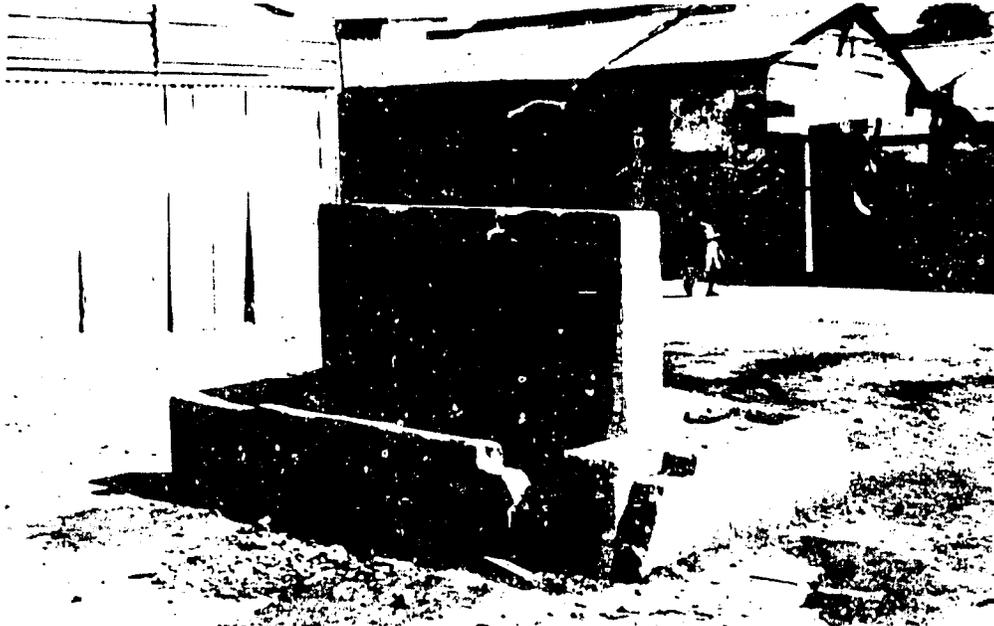


Photo 1. Typical public fountain—Quartier 3.
Fontaine publique typique—Quartier 3.



Photo 2. Communal water storage—Balbala.
Partage de l'eau en stockage—Balbala.



Photo 3. "Pirated" water by hoses from public fountain—Balbala.

l'Eau "piratée" par tuyau relié à la fontaine publique—
Balbala.



Photo 4. Interior water connection to
courtyard of house.

Branchement intérieur à la cour
de maison.



Photo 5. Storage of drinking water in covered jars.
Stockage de l'eau potable dans des "pots" couverts.



Photo 6. Water delivery by tank truck—Balbala.
Livraison de l'eau par camion citerne—Balbala.



Photo 7. Typical pit latrine (non covered) with raised foot rests and water for cleansing.

Latrine de fosse typique (non-converte) avec des appuis de pied élevés et de l'eau pour le nettoyage.



Photo 8. Shared pit latrine—Balbala—with Dr. Ahmed, Hygiene Service.

Latrine partagée—Balbala—avec Dr. Ahmed, Service Hygiène.



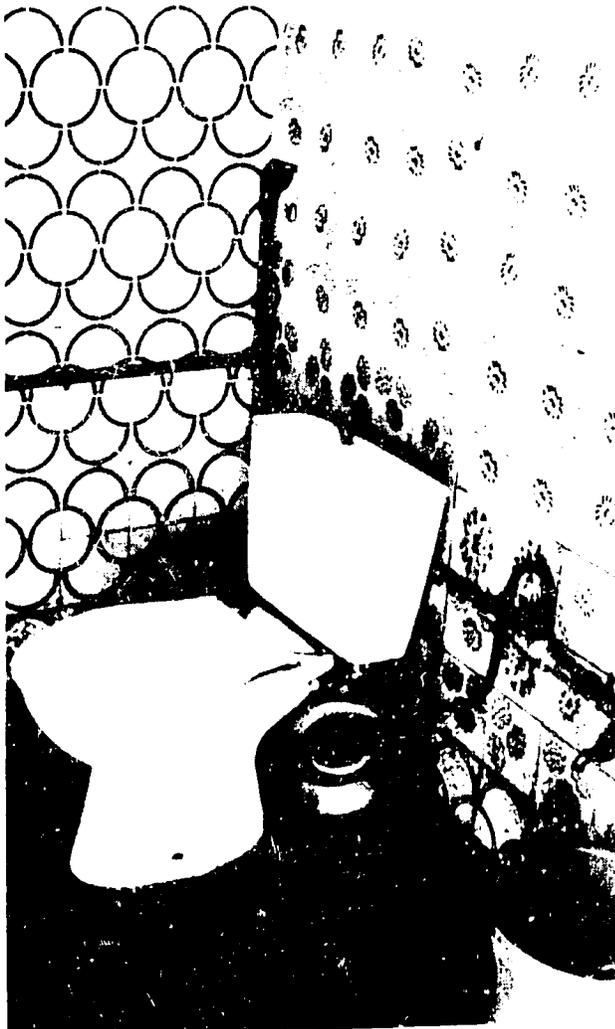
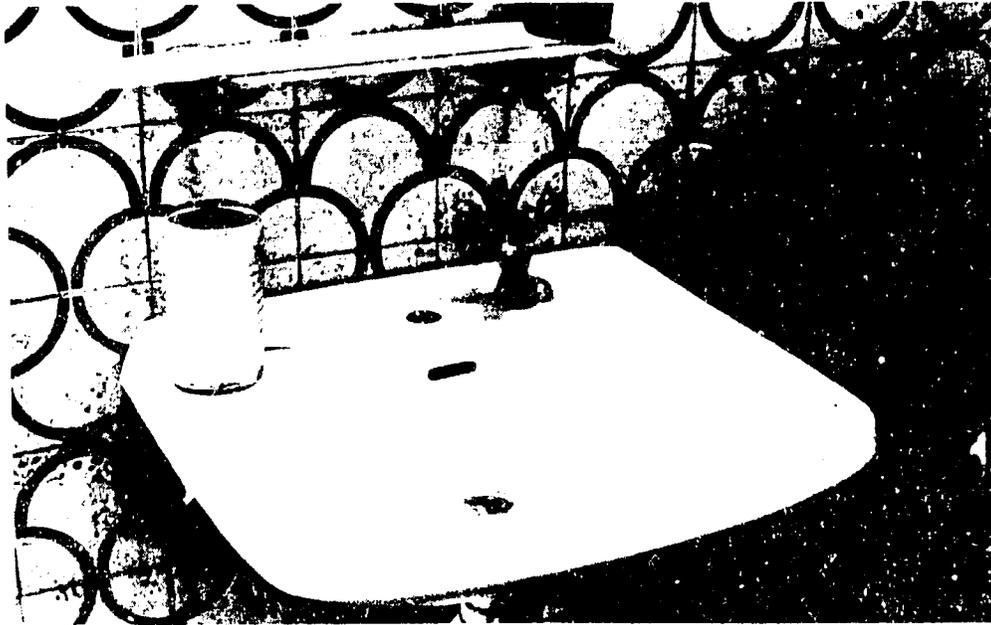
Photo 9. Waste water thrown on ground
between house and street.

Des eaux usagées jetées par
terre entre la rue et la
maison.



Photo 10. A bad example of storing garbage inside courtyard.

Un mauvais exemple des ordures gardées dans la cour.



Photos 11 and 12.

Modern sink and flush toilet.

Toilette avec chasse d'eau et un robinet moderne.



Photo 13. Drainage from street to
underground canal.
(Improved Quarter 3)

Drainage de la rue à un canal
souterrain.
(Quartier 3—amélioré)



Photo 14. Street-level drainage
(Improved Quarter 3)

Drainage au niveau de la rue
(Quartier 3—amélioré)

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APPENDIX A

**Officials Interviewed
(Autorités Contactées)**

APPENDIX A

Officials Interviewed
(Autorités Contactées)

<u>NAME/NOM</u>	<u>TITLE/TITRE</u>	<u>ORGANIZATION/ORGANISMES</u>
Mr. Hassan Robleh	Chef, Services Techniques du District	Ministère de l'Intérieur
Mr. F. Gaudebert	Architecte/Urbaniste Services Techniques du District	Ministère de l'Intérieur
Mr. Djama Mohamed Ali	Adjoint Statisticien	DINAS
Mr. Idriss Ali Sultan	Statisticien	DINAS
Mr. Gérard Chenais	Conseiller Technique	DINAS
Mr. Denville F. Ismail	Adjoint de Programme	USAID
Dr. Ahmed Mohamed Hassan	Directeur-Adjoint,	Services d'Hygiène/ Epidémiologique
Dr. Christian Bailly	Médecin-Chef,	Services d'Hygiène/ Epidémiologique
Mr. William Rounds	Chef de Mission	Louis Berger, Inc. (PDUD)
Mr. Doualeh Farah	Directeur	DINAS
Mr. Saleh Omar Hildid	Commissaire de la République	Ministère de l'Intérieur
Mr. Mahmoud Ahmed Awale	Chef, Assainissement/VRD	Ministère des Travaux Publics
Mr. Abdoulkader Isse	Adjoint, Assainissement/VRD	Ministère des Travaux Publics
Mr. Ali Youssouf Gueddi	Directeur Adjoint	Office National des Eaux (ONED)
Mr. Guedda Mohamed Ahmed	Sociologiste	ISERST
Mr. Abdourahman Farah	Chef, Section Energie Renouvelable	ISERST
Mme. Saida Hassan	Secrétaire Général	ONED
Mr. Farah Ali Ainan	Chef, Projet de Maitrise de l'Energie	ISERST

<u>NAME/NOM</u>	<u>TITLE/TITRE</u>	<u>ORGANIZATION/ORGANISMES</u>
Mr. John Eagan McAteer	Chargé d'Affaires	U.S. Embassy
Dr. Hadla Kyriakos	Chargé des Projets	UNICEF
Ms. Leila Abrar	Adjoint, Chargé des Projets	UNICEF
Mr. Emilio Perez-Porras	Délégué Résident	CCE (EEC)
Mr. Fabio de Micco	Conseiller Technique	CCE (EEC)
Dr. Fawzia Abrar	Médecin	Ministère du Travail
Dr. Habiba Wassef	Représentant	OMS (WHO)
Mr. Mohsen Boulares	Représentant Résident	PNUD (UNDP)
Mr. Rachid el Gharbi	Economiste	Projet de Développement de la Pêche
Mr. Juan de Torres	Sanitary Engineer	Banque Africaine de Développement (BAD)

APPENDIX B

Questionnaire

APPENDIX B

Questionnaire

COMITE NATIONAL
EAU HYGIENE ASSAINISSEMENT

ETUDE SOCIO-CULTURELLE

DES ANCIENS QUARTIERS DE DJIBOUTI-VILLE ET DE BALBALA

(mars-avril 1988)

(1) NUMERO DE L' ILOT : |---|---|---|

(2) NUMERO DU MENAGE : |---|

(3) NOM DE L'ENQUETEUR : _____

(4) NOM DU CONTROLEUR : _____

DATE DE L'ENTREVUE : _____

Vérification par : _____ le _____

Saisie par : _____ le _____

ENVIRONNEMENT IMMEDIAT DU LOGEMENT

(Instruction : cette partie doit être remplie avant d'entrer dans le logement)

(5) ACCES A LA MAISON
(observation)

Sentier	1
Voie de terre battue non entretenue	2
Voie de terre battue améliorée	3
Voie asphaltée	4
Autre: (préciser) _____	5

(6) DRAINAGE DE LA CHAUSSEE
(observation)

Voie écoulement gravitaire naturelle	1
Cuvette - Flaque d'eau	2
Voie non entretenue	3
Voie entretenue	4
Autre: (préciser) _____	5

(7) MURS EXTERIEURS DE LA MAISON
(observation)

Tôle	1
Flanche	2
Dur	3
Préfabriqué	4
Contreplaqué	5
Autre: (préciser) _____	6

(autres questions page suivante)

PREMIER CONTACT AVEC LES PERSONNES A INTERVIEWER

(instruction : prendre contact avec le chef de ménage si il est là ; demander à parler d'abord avec la femme qui a le plus de responsabilité auprès du chef de ménage. Expliquer que vous voudriez ensuite parler avec le chef de ménage, et demandez quand il pourra être disponible un peu plus tard.

noter l'heure _____

Instruction :

si la femme responsable n'est pas chef de ménage commencer à la question (9)
si le chef de ménage est une femme commencer à la question (10)

(9) COMME VOUS N'ETES PAS LE CHEF DE MENAGE, QUELLE EST VOTRE RELATION AVEC LUI ?

L'épouse / l'époux	1
La fille / le fils	2
La grand'mère / le grand père	3
La soeur / le frère	4
La petite fille / le petit fils	5
Autre: (préciser) _____	6

(10) COMBIEN DE METRES CARRÉS MESURE VOTRE LOT ?

(instruction : si la réponse n'est pas connue, l'estimer avec un pas d'un mètre)

moins de 20 m ²	1
de 20 à 30 m ²	2
de 30 à 40 m ²	3
de 40 à 60 m ²	4
de 60 à 80 m ²	5
de 80 à 100 m ²	6
+ de 100 m ²	7

(11) TYPE DE SOL DANS LA MAISON
(observation)

Ciment	1
Carrelage	2
Planche	3
Terre	4
Autre: (préciser) _____	5

(12) NOMBRE DE PIECES UTILISEES UNIQUEMENT PAR VOTRE MENAGE

(instruction: pieces qui sont utilisables pour le logement sauf cuisine / toilettes - latrines)

Une	1
Deux	2
Trois	3
Quatre	4
Cinq	5
Six ou +	6

(autres questions page suivante)

(14) GARDEZ-VOUS DES ANIMAUX DANS VOTRE MAISON OU DANS L'ENCEINTE ?

Oui	1
Non	2

(15) DE QUELS SERVICES OU INSTALLATIONS DISPOSEZ-VOUS ACTUELLEMENT ?
(lire les réponses possibles)

Eau : branchement direct ou borne fontaine	1
Ramassage d'ordures par camion ou par bac	2
Route d'accès carrossable	3
Réseau d'eaux pluviales et réseau d'eaux usées	4
Eclairage public	5
Electricité fournie par l'EDD	6
Groupe électrogène	7
Téléphone	8

(autres questions page suivante)

C O M P O S I T I O N D U M E N A G E

(16) VOTRE MENAGE COMPREND COMBIEN DE PERSONNES, Y COMPRIS LES ENFANTS ?

(écrire le nombre total) _____ personnes

QUELS SONT LEUR AGE, SEXE ET ACTIVITE ?

POUR LES HOMMES ET LES GARCONS D'ABORD : (inscrire les nombres)

	total	Inscrits à l'école publique	gagnant un revenu régulier
Entre 0 et 5 ans	_____		
Entre 6 et 11 ans	_____	_____	_____
Entre 12 et 17 ans	_____	_____	_____
Entre 18 et 25 ans	_____		_____
Entre 26 et 35 ans	_____		_____
Entre 36 et 50 ans	_____		_____
Plus de 50 ans	_____		_____

POUR LES FEMMES ET LES FILLES MAINTENANT: (inscrire les nombres)

	total	Inscrites à l'école publique	gagnant un revenu régulier
Entre 0 et 5 ans	_____		
Entre 6 et 11 ans	_____	_____	_____
Entre 12 et 17 ans	_____	_____	_____
Entre 18 et 25 ans	_____		_____
Entre 26 et 35 ans	_____		_____
Entre 36 et 50 ans	_____		_____
Plus de 50 ans	_____		_____

(autres questions page suivante)

APPROVISIONNEMENT EN EAU ET EVACUATION DES EAUX USEES

(instruction : lire les lignes les unes après les autres et poser les questions en commençant par la source jusqu'à l'évacuation)

	UTILISATION DE L'EAU	SOURCE DE L'EAU	DISTANCE A LA SOURCE	DUREE DU TRAJET ALLER / RETOUR	QUI TRANSPORTE L'EAU ET SON AGE		PROBLEMES AVEC L'APPROVISIONNEMENT EN EAU	RESERVOIRS ET NOMBRE DE JOURS L'EAU EST CONSERVEE		RESERVOIRS COUVERTS OU NOM		EVACUATION DES EAUX USEES
					QUI	AGE		OUI/NON	JOURS	OUI	NON	
(20)	BOISSON				QUI	AGE		OUI/NON 1 2	JOURS	OUI	NON	
(21)	CUISINE/ALIMENTS				QUI	AGE		OUI/NON 1 2	JOURS	OUI	NON	
(22)	LESSIVE/VETEMENTS				QUI	AGE		OUI/NON 1 2	JOURS	OUI	NON	
(23)	DOUCHE/TOILETTE				QUI	AGE		OUI/NON 1 2	JOURS	OUI	NON	
(24)	NETTOYAGE DES SANITAIRES APRES UTILISATION				QUI	AGE		OUI/NON 1 2	JOURS	OUI	NON	
(25)	LE MENAGE				QUI	AGE		OUI/NON 1 2	JOURS	OUI	NON	
(26)	LES ANIMAUX				QUI	AGE		OUI/NON 1 2	JOURS	OUI	NON	

CODES	"SOURCE D'EAU"	"DISTANCE"	"TEMPS"	"QUI TRANSPORTE L'EAU"	"PROBLEMES D'APPROVISIONNEMENT"	"EVACUATION"
1.	Fontaine publique	0. Pas applicable	0. Pas applicable	0. Pas applicable	0. Pas de problème	0. Pas applicable
2.	Branchement extérieur	1. 0 - 30 mètres	1. 5 - 10 mn	1. Les jeunes filles	1. Elle n'est pas toujours disponible	1. Jetées dans la rue
3.	Branchement intérieur	2. 30 - 60 "	2. 10 - 15 mn	2. Les femmes	2. Le trajet prends trop de temps	2. Jetées sur le sol
4.	Tuyau relié à la source	3. 60 - 90 "	3. 15 - 20 mn	3. Les garçons	3. Le transport est fatiguant	3. Jetées dans la rigole
5.	Robinet du voisin	4. 90 - 100 "	4. 20 - 25 mn	5. Les hommes	4. Le chemin est accidenté	4. Données aux animaux
6.	Un puits	5. 100 - 150 "	5. 25 - 30 mn	6. Les enfants	5. L'eau n'est pas toujours propre	5. Evacuées par l'égoût
7.	Camion vendeur	6. 150 - 200 "	6. 30 - 40 mn	7. La domestique		6. Jetées dans les canaux du district
8.	Autre vendeur	7. 200 - 300 "	7. plus d'1 heure			
9.	Préciser	8. Plus de 300 "		9. Préciser	9. Préciser	9. Préciser
		9. Préciser	9. Préciser			

SANITAIRES

(28) QUEL TYPE DE TOILETTE (SANITAIRE) EST DISPONIBLE POUR VOTRE MENAGE ?

Toilette avec chasse d'eau	1
Latrine	2
Aucune	3
Autre: (préciser) _____	4

(29) CES TOILETTES SONT-ELLES UTILISEES AUSSI PAR UN AUTRE MENAGE ?

Non ce ménage seulement	1
Oui, partage avec d'autres	2
Autre: (préciser) _____	3

(30) LES TOILETTES SONT SITUEES A L'INTERIEUR OU A L'EXTERIEUR DE VOTRE HABITATION ?

A l'intérieur	1
A l'extérieur	2

(31) SI TOILETTES QUE VOUS UTILISEZ SONT DES LATRINES QUELLE METHODE UTILISEZ-VOUS POUR VIDANGEZ ET COMBIEN DE FOIS ?

	Nombre de fois	Periode	
Camion	_____ par	_____	1
Vidange dans une fosse	_____ par	_____	2
Enleve manuellement	_____ par	_____	3
Jamais			4
Pas de latrines			5 --> 35

(32) COMBIEN DE FOIS NETTOYEZ-VOUS LES LATRINES ?

_____ fois par :	jour	1
	semaine	2

(33) QU'UTILISEZ-VOUS POUR NETTOYER LES LATRINES ?

(instruction : ne lisez-pas les réponses)

De l'eau	1
du kérosène	2
du détergent	3
le balai	4
Autre: (préciser) _____	5

(autres questions page suivante)

(34) LES LATRINES SONT-ELLES COUVERTES ?

(instruction : l'enquêteur doit vérifier par lui-même)

Oui	1
Non	2

DISTANCE DES LATRINES A LA RESERVE D'EAU POTABLE

(observation de l'enquêteur)

pas applicable	1
moins d'un pas	2
entre 1 et 5 pas	3
plus de 5 pas	4

DISTANCE DES LATRINES A LA CUISINE

(observation de l'enquêteur)

pas applicable	1
moins d'un pas	2
entre 1 et 5 pas	3
plus de 5 pas	4

(autres questions page suivante)

D O U C H E S

(15) OU VOUS DOUCHEZ-VOUS ?

..... (noter le lieu)

(16) COMBIEN DE FOIS AVEZ-VOUS L'OPPORTUNITE DE PRENDRE UN BAIN OU UNE DOUCHE ?

EN ETE fois:	par jour	1
		par semaine	2
EN HIVER fois:	par jour	3
		par semaine	4

(17) A QUELLES OCCASIONS LAVEZ-VOUS VOS MAINS ?

Après l'utilisation des latrines	1
après avoir nettoyé les latrines	2
avant de préparer la nourriture	3
avant de manger	4
avant d'allaiter l'enfant	5
après le vidage des ordures	6
Autre: (préciser)	7

(18) AVEZ-VOUS UN COLLECTEUR D'EAUX USEES A L'EXTERIEUR DE VOTRE MAISON ?

Dui	1 --> 39
Non	2

SI NON, OU EVACUEZ-VOUS L'EAU ?

dans la rue	1
sur le sol	2
dans la rigole	3
utilisées pour les animaux	4
évacuée (système d'égouts)	5
jetées dans les caniveaux de la ville	6
Autre: (préciser)	7

(autres questions page suivante)

ORDURES MENAGERES

(39) OU GARDEZ-VOUS LES ORDURES AVANT DE VOUS EN DEBARRASSER ? MONTREZ-MOI

----- noter l'endroit

(observation de l'enquêteur)	Récipient couvert	1
	récipient non couvert	2
	Autre: (préciser) _____	3

DISTANCE A LA RESERVE D'EAU POTABLE

(observation de l'enquêteur)

pas applicable	1
moins d'un pas	2
entre 1 et 5 pas	3
plus de 5 pas	4

DISTANCE A LA CUISINE

(observation de l'enquêteur)

pas applicable	1
moins d'un pas	2
entre 1 et 5 pas	3
plus de 5 pas	4

(40) COMBIEN DE TEMPS GARDEZ-VOUS LES ORDURES AVANT DE VOUS EN DEBARRASSER ?

----- nombre de jours

(41) OU DEBARRASSEZ-VOUS LES ORDURES ?

(instruction: lire les réponses)

Camion des ordures	1
container à roulettes	2
bac à ordures	3
dans un fossé de la rue	4
aux animaux	5
Autre: (préciser) _____	6

QUEL SYSTEME VOUS PREFEREZ POUR L'ENLEVEMENT DES ORDURES ?

Camion des ordures	1
container à roulettes	2
bac à ordures	3
Autre: (préciser) _____	4

(autres questions page suivante)

EQUIPEMENT DU MENAGE

(42) VOTRE LOGEMENT DISPOSE-T-IL DE L'ELECTRICITE ?

SI NON MODE D'ECLAIRAGE : _____ --> 45

SI OUI PUISSANCE SOUSCRITE : _____ Kva

DERNIERES FACTURES DE L'EDD : (demander à les voir)

mois _____ montant _____ FD
mois _____ montant _____ FD

(43) AVEZ-VOUS DES APPAREILS ELECTRIQUES ?

Oui 1 --> 44
Non 2 --> 45

(44) QUEL GENRE, LEUR NOMBRE ET LE NOMBRE D'HEURES D'UTILISATION PAR JOUR ?

(instruction : lire en suivant les colonnes)

GENRE		:	Nombre	:	Durée : utilisation : journalière
Refrigerateur	Petit format	:		:	24 h
	Grand format	:		:	24 h
Congelateur	Petit format	:		:	
	Grand format	:		:	
Eclairage	Ampoule incandescente:	:		:	
	Tube fluorescent	:		:	
Ventilation	De plafond	:		:	
	Mural ou sur pied	:		:	
Climatiseur		:		:	
Televiseur		:		:	
Magnétoscope		:		:	
Radio		:		:	
Cuisinière électrique		:		:	
Machine à la laver		:		:	
Fer à repasser		:		:	

(45) QU'UTILISEZ-VOUS POUR CUISINER ? ET EN QUELLES QUANTITES ?

Bois	-----	Kg par semaine	1
Kerosène	-----	Litres par semaine	2
Charbon de bois	-----	Kg par semaine	3
Gaz	-----	Butagaz par mois	4
Electricité	-----		5

LORSQUE QUELQU UN DE VOTRE MENAGE DOIT SE FAIRE SOIGNER,
OU ALLEZ-VOUS GENERALEMENT ?

----- (noter le lieu indiqué)

Instructions : si la personne qui vous répond est le chef de ménage passer
directement à la question 46
si la personne qui vous répond n'est pas le chef de ménage
demander à le voir s'il est disponible tout de suite,
autrement demander quand vous pouvez revenir pour le rencontrer
noter l'heure de rendez-vous -----

QUESTIONS POUR LE CHEF DE MENAGE

(46) QUEL EST VOTRE AGE ? _____

ETES-VOUS MARIE, DIVORCE OU VEUF ?

Marié	1
Divorcé	2
Veuf	3
Jamais marié	4

(47)

A - ETES-VOUS PROPRIETAIRE DE VOTRE LOGEMENT ?

Oui	1 --> 4B
Non	2 --> B

B - ETES-VOUS LOCATAIRE DE VOTRE LOGEMENT ?

Oui ? montant du loyer: _____	1 --> 4B
Non	2 --> C

C - QUELLE EST DONC LA SITUATION ?

Hébergé provisoirement	1
Autre: (préciser) _____	2

(48) DEPUIS COMBIEN DE TEMPS HABITEZ-VOUS ICI ?

moins d'1 an	1
entre 1 et 2 ans	2
entre 2 et 3 ans	3
entre 3 et 4 ans	4
entre 4 et 5 ans	5
plus de 5 ans	6

(49) POUR QUELS SERVICES PAYEZ-VOUS ? ET COMBIEN ET QUELLE PERIODE POUR CHACUN ?

Eau	_____	FD pour _____	1
Ramassage d'ordures	_____	FD pour _____	2
Vidange des latrines	_____	FD pour _____	3
Electricité branchée par EDD	_____	FD pour _____	4
Groupe électrogène (pétrole)	_____	FD pour _____	5
Autre: (préciser) _____	_____	FD pour _____	6

(autres questions page suivante)

(50) SI VOUS NE BENEFCIEZ PAS DEJA DE CE SERVICE, JUSQU'A COMBIEN ETES-VOUS PRET A PAYER POUR :

Eau	pour 2 mois	:	_____	FD
Ramassage d'ordures	pour	:	_____	FD
Vidange des latrines	pour 2 ans	:	_____	FD
Electricite branchée par EDD	pour 2 mois	:	_____	FD
Autre: (preciser) _____	pour	:	_____	FD

(51) COMPTE TENU DE VOTRE SITUATION ACTUELLE, SERIEZ-VOUS VOLONTAIRE POUR DEPENSER D'AVANTAGE AFIN DE :
(instruction : entrer la réponse oui ou non et le montant)

Obtenir une meilleur source d'eau potable	_____ si oui	_____	FD
Obtenir une source d'eau potable plus proche	_____ si oui	_____	FD
Obtenir un lieu d'aisance amélioré	_____ si oui	_____	FD
Autre: (preciser) _____	_____ si oui	_____	FD

(52) PREFERERIEZ VOUS RESTER ICI AVEC DES SERVICES NOUVEAUX OU AMELIORES OU DEMENAGER DANS UNE NOUVELLE ZONE D'HABITATION ?

Rester mais avec des services nouveaux ou améliorés	1
Deménager dans une nouvelle zone d'habitation	2
Ne sait pas	3

(53) SI VOUS AVIEZ LA POSSIBILITE D'EMPRUNTER POUR AMELIORER OU CONSTRUIRE VOTRE PROPRE MAISON, COMBIEN POURRIEZ-VOUS REMBOURSER PAR MOIS ?

Pas plus de 3000 FD par mois	1
entre 3000 et 4000 FD par mois	2
entre 4000 et 5000 FD par mois	3
entre 5000 et 6000 FD par mois	4
entre 6000 et 7000 FD par mois	5
entre 7000 et 8000 FD par mois	6
8000 FD ou plus	7

(54) SERIEZ-VOUS PRET A PRENDRE PART A DES TRAVAUX D'AMELIORATION DE L'APPROVISIONNEMENT EN EAU ET DES LIEUX D'AISSANCE ?

Oui	1
Non	2 --> 55

SI OUI, AVEC QUI SERIEZ-VOUS PRET A TRAVAILLER ?

Les voisins immédiats	1
Les gens de ma rue	2
Les gens de mon quartier	3
Autre: (preciser) _____	4

(55) SERIEZ-VOUS PRET A PARTAGER UNE FOSSE D'AISANCE AMELIOREE
SI VOUS AVIEZ A LA PARTAGER AVEC UN OU PLUSIEURS PROCHES VOISINS ?

Oui 1 --> A
Non 2 --> B

A - SI OUI, POUR QUELLES RAISONS SERIEZ-VOUS PRET A PARTAGER ?

Confiance aux voisins 1
pas assez d'argent pour payer moi-même 2
partager est dans notre nature 3
Autre: (préciser) _____ 4

B - SI NON, POUR QUELLES RAISONS NE VOUDRIEZ-VOUS PAS PARTAGER ?

Pas de confiance aux voisins 1
c'est une affaire privée 2
la religion rend ceci difficile 3
ce n'est pas hygiénique 4
je peux payer mes propres latrines 5
Autre: (préciser) _____ 6

(56) QUELS SONT LES GROUPEs DANS LE QUARTIER QUI POURRAIENT PARTICIPER
A UN EFFORT COLLECTIF TEL QUE LA CONSTRUCTION D'UNE FOSSE SÉPTIQUE
POUR UN VOISIN CHOMEUR ?

(instruction : lire les lignes une par une et attendre une réponse)

	Oui	Non	Nsp
Groupe local de la mosquée	1	2	3
Maison des jeunes	1	2	3
Comité de la Santé	1	2	3
Association d'entraide et de solidarité	1	2	3
Aucun	1	2	3
Autre: (préciser) _____	1	2	3

(57) QUEL EST LE PLUS HAUT NIVEAU D'ENSEIGNEMENT QUE VOUS AVEZ RECU

Ecole primaire 1
Premier cycle secondaire 2
Deuxième cycle secondaire 3
Professionnel 4
Universitaire 5
Ecole coranique 6
Aucun 7
Autre: (préciser) _____ 8

(Remerciez la personne d'avoir bien voulu répondre.)

APPENDIX C

**Grandes Lignes de l'Etude Socio-Culturelle sur les Pratiques
d'Hygiène et d'Utilisation de l'Eau des Ménages dans les
Anciens Quartiers et à Balbala**

EBAUCHE

LE COMITE NATIONAL
POUR L'EAU, L'ASSAINISSEMENT ET L'HYGIENE

GRANDES LIGNES DE L'ETUDE SOCIO-CULTURELLE
SUR LES PRATIQUES D'HYGIENE ET
D'UTILISATION DE L'EAU DES MENAGES
DANS LES ANCIENS QUARTIERS ET A BALBALA

1. BUTS DE L'ETUDE

- a. Sensibiliser et informer les planificateurs de programme pour concevoir et appliquer la technologie appropriée pour l'eau et l'hygiène; et
- b. établir une éducation pour la santé et des programmes d'information pour les comités afin d'améliorer l'utilisation et l'entretien des installations.

2. OBJECTIFS DE L'ETUDE

- a. Fournir les résultats des recherches sociales, culturelles et économiques utiles aux planificateurs urbains pour la conception et l'exécution des services et d'assainissement et les installations dans les anciens quartiers à bas-revenus et à Balbala;
- b. fournir les données socio-culturelles relatives à la santé et à x planificateurs de l'éducation pour la santé concernant leur conception de programmes afin d'élever la conscience des résidents en ce qui concerne les pratiques d'hygiène appropriées;
- c. fournir une méthodologie et des techniques aux organisateur/planificateurs communautaires pour l'utilisation en obtenant la participation des résidents dans le développement des phases d'amélioration de leur communauté; et
- c. institutionnaliser la méthodologie de l'étude socio-culturelle et son exécution de façon à ce que les chercheurs sociaux djiboutiens puissent réaliser des études similaires de valeur pratique dans le futur.

3. ETAPES POUR LA CONCEPTION, L'EXECUTION ET L'ANALYSE DE L'INSTRUMENT DE PRE-ESSAI

- a. En premier lieu, des observations détaillées de l'utilisation de l'eau et des pratiques d'hygiène des foyers dans les anciens quartiers et Balbala, et les conditions d'amélioration du Quartier 3, du point de vue de la sociologie, de l'épidémiologie/hygiène et de l'ingénierie;
- b. interviews directes des résidents concernant les conditions et les contraintes comprenant l'approvisionnement en eau et les services et installations d'hygiène au niveau des foyers;
- c. interviews avec les directeurs techniques du Ministère pour obtenir leurs perceptions des questions vis-à-vis de la définition des besoins en eau et en hygiène dans les quartiers à bas revenus de la ville de Djibouti;
- d. en se basant sur les recherches ci-dessus (en plus de l'examen des rapports en relation), la conception de questions préliminaires pour la phase de pré-essai de l'étude; révision, nouvelle rédaction et traduction des questions en langues Somali, Afar et Arabe;
- e. la sélection des interviewers; formation des interviewers et superviseurs préliminaire et sur le terrain; finalisation de l'instrument de pré-essai; et détermination d'un échantillon de résidents des anciens quartiers et de Balbala;
- f. l'utilisation des résultats provenant de l'essai sur le terrain du questionnaire pour reformuler, ajouter ou éliminer des questions; codifier les réponses; l'analyse statistique préliminaire (non élaborée) des données;
- g. la rédaction du rapport préliminaire donnant les grandes lignes des résultats des étapes ci-dessus (a-f), détaillant les questions de méthodologie et la substance, les motifs et les tendances des données, et la recommandation de changements dans le questionnaire en se basant sur l'analyse finale; et
- h. le développement d'un calendrier/plan de travail pour l'exécution de l'enquête prévue provisoirement pour Janvier 1988; formulation d'une méthode d'échantillonnage, niveau de l'échantillonnage, et techniques de codification pour l'enquête de Janvier; et conception/sélection des techniques d'analyse statistique.

4. ETAPES DE L'EXECUTION, ANALYSE ET PRESENTATION DE L'ENQUETE DE JANVIER 1988

- a. en assumant que le procurement des fonds nécessaires est possible, l'achèvement du processus de préparation de l'instrument d'enquête (3.h., ci-dessus) pour son utilisation avec un échantillon parfait;
- b. renforcer les services avec un socio-anthropologiste natif de pays en développement pour aider à l'exécution, à l'analyse et à la présentation de l'enquête;
- c. revoir la dernière formation avec les interviewers et les superviseurs; former les codificateurs des données et un analyste des recherches en analyse statistique sur micro-ordinateur;
- d. formuler les grandes lignes pour le rapport sur l'analyse et l'interprétation des données et développer les critères pour des recommandations potentielles aux planificateurs de la santé, aux planificateurs de l'éducation pour la santé, et aux organisateurs de la communauté;
- e. exécuter le modèle d'enquête; codifier, analyser et interpréter les données pour que les recommandations de planification soient présentées dans le rapport final;
- f. ébauche du rapport final pour la présentation au Comité; finalisation du rapport; et
- g. conception et exécution du séminaire/atelier pour les planificateurs urbains, les planificateurs de l'éducation pour la santé, et les organisateurs de la communauté.

5. CALENDRIER POUR L'ETUDE SOCIO-CULTURELLE

PERIODE NOVEMBRE-DECEMBRE (1987)			JANVIER-FEVRIER (1988)		
SEMAINE DU	ACTIVITE	RESPONSABILITE*	ACTIVITE	SEMAINE DU	
8 NOV.	(1) FORMULATION DES OBJECTIFS DE L'ETUDE	CNE ISERST/DINAS	FINALISER LE QUESTIONNAIRE D'ENQUETE	(1) 3 JANV.	
16 NOV.	(2) OBSERVATIONS DETAILLEES DANS LA COMMUNAUTE	CNE/ ISERST/DINAS	FORMATION DE RAPPEL DES INTERVIEWERS	(2) 10 JANV.	
	(3) INTERVIEWS AVEC LES DIRECTEURS TECHNIQUES DU MINISTERE	CNE ISERST/DINAS	CODIFICATEURS FORMES ET INTRANT DE PERSONNEL	(3) 17 JANV.	
22 NOV.	(4) CONCEPTION ET REVISION DES QUESTIONS PRELIMINAIRES	DINAS/ ISERST/DINAS	DEBUT DE L'EXECUTION DE L'ENQUETE	(4) 24 JANV.	
	(5) SELECTION DES INTERVIEWERS, DISCUTER SUR LA METHODE D'ECHANTILLONNAGE	" ISERST/DINAS	POURSUITE DE L'EXECUTION, DEBUT DU CODAGE, INTRANT DES DONNEES	(4) 24 JANV.	
29 NOV.	(6) EXECUTER LE QUESTIONNAIRE PRE-ESSAI	" "	DEBUT DE L'ANALYSE DES DONNEES	(5) 31 JANV.	
	(7) FORMATION DES INTERVIEWERS	" "	POURSUITE DE L'ANALYSE DES DONNEES	(6) 7 FEV.	
	(8) FORMATION SUR LE TERRAIN/ ESSAI DU QUESTIONNAIRE	" "	DEBUT DE L'INTERPRETATION ET REDACTION DU RAPPORT FINAL	(7)	
	(9) REFORMULATION DES QUESTIONS	" "	SUITE DE LA REDACTION DU RAP. FINAL	(8) 14 FEV.	
6 DEC.	(10) DISCUSSION SUR LA TECHNIQUE DE CODAGE	" "	REVISION DU RAPPORT FINAL AVEC LE COMITE	(9)	
	(11) EBAUCHE DE RAPPORT SUR LES QUESTIONS DE METHODOLOGIE ET DE CONTENU	" "	FINALISATION DU RAPPORT	(10) 21 FEV.	
	(12) EBAUCHE DE PLAN DE TRAVAIL POUR L'ENQUETE DE JANV.-FEV.	" "	PRESENTER LE SEMINAIRE/ATELIER, POUR LES PLANIFICATEURS URBAINS, LES PLANIFICATEURS DE LA SANTE, LES ORGANISATEURS DE LA COMMUNAUTE	(11)	
13 DEC.	(13) ARRANGEMENTS POUR LE SOCIOLOGISTE DES PAYS EN DEVELOPPEMENT	" "			
20 DEC.	(14) SELECTION DES ECHANTILLONS	" "			
27 DEC.	(15) ARRANGEMENTS POUR LES INTERVIEWERS	" "			

CLEF * CNE = COMITE NATIONAL DE L'EAU, DE L'ASSAINISSEMENT ET DE L'HYGIENE
 ISERST = INSTITUT SUPERIEUR D'ETUDES ET DE RECHERCHES SCIENTIFIQUES ET TECHNIQUES
 DINAS = DIRECTION NATIONALE DE LA STATISTIQUE

6. BUDGET

a. <u>Interviewers</u>		
- Cinq (5) interviewers pour un mois chacun à 75.000 FD/mois		FD
b. <u>Superviseurs</u>		
- Deux (2) superviseurs pour un mois chacun à 80.000 FD/mois		FD
c. <u>Codificateurs</u>		
- Deux (2) codificateurs pour deux semaines à FD/mois		FD
d. <u>Opérations informatisées</u>		
- Un (1) opérateur d'ordinateur pour l'intrant des données pour deux semaines à FD/mois		FD
- Un (1) analyste des données pour deux semaines à FD/mois (utilisation des ordinateurs de DINAS/ISERST		FD
e. <u>Sociologue professionnel</u>		
- Un (1) sociologue professionnel djiboutien pour deux mois à FD/mois		FD
f. <u>Transport</u>		
- Un mois de dépenses d'essence pour véhicule (utilisation d'un véhicule du gouvernement)litres d'essence à FD/litre		FD
g. <u>Dactylographie, reproduction, matériels</u>		
- Un (1) dactylographe pour deux mois à FD/mois		FD
- Papier rames à FD/rame		FD
- Reproduction copies à FD/page		FD
TOTAL		FD