

A BASELINE SURVEY TO ASSESS  
THE WATER AND SANITATION CONDITIONS  
IN KARARE LOCATION OF CENTRAL DIVISION  
MARSABIT DISTRICT

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## INTRODUCTION

This is a report of a baseline survey carried out in Karare /Ula-Ula sublocations of Marsabit Central division. The objective was to assess the water and general sanitation status in the two sub-locations. This was necessitated by the absence of data on this issue. It was a prior requirement to implementation of a water and sanitation project, funded by SIDA in conjunction with the Ministry of health, Kenya. The study was conducted during the month of february, 1995

## A C K N O W L E D G E M E N T

A number of people facilitated the production of this baseline survey information. The data collection exercise was conducted by a group of Public Health personnel who included M/S John Halkano Galgallo, Guracha Halake, Njeru Mbirwa and Miss Asha Mohamed. My sincere thanks to them for the tireless effort which they made. Much more thanks to to the respondent Communities of both Ula-Ula and Karare Sub-locations and their leaders who positively responded to the interviews and also participated in the problem analysis workshop and the discussion that followed. I also thank the district health office for helping to facilitate the entire process. I hope and pray that we make the good out of this report.

HENRY H. DUBA  
PUBLIC HEALTH OFFICER  
MARSABIT.

MAY, 1995

## KEY TO ABBREVIATION

AIC	- African Inland Church
AMA	- African Muslim Agency
CCF	- Christian Children Fund
CPK	- Church of Province of Kenya
DRP	- Drought Recovery Programme
FFW	- Food for Work
FHI	- Food For the Hungry International
GOK	- Government Of Kenya
GTZ	- German Technical Cooperation
KAB(p)	- Knowledge Attitude and Behaviour( Practice)
NGO	- Non-governmental Organization
ORS	- Oral Rehidration Salt
PAW	- Problem Analysis Workshop
PHC	- Primary Health Care
PHT	- Public Health Technician
SIDA	- Swedish International Development Authority
TBA	- Traditional Birth Attendants
URTI	- Upper Respiratory Tract Infection
VIP	- Ventilated Improve Pit latrine

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## EXECUTIVE SUMMARY

This study is divided into six chapters. Chapter one gives the background information dealing with the project description and problem statement. Chapter two gives the detail of the study methodology. The third Chapter dwells on the findings of the study while chapter four discusses these findings. Chapter five concludes the study and finally chapter six is the recommendation of the findings.

The aim of this study is to get a baseline information on water and sanitation status for the Karare and Ula Ula sub-location of Marsabit Central division. Ula Ula is located along Isiolo-Marsabit road about 5km to the west of Marsabit town. Karare too is located along the same highway but further 10-12km away the two sub-locations are inhabited by the Rendille/Ariaal (Karare) and Rendile(Ula Ula). These are a formally nomadic pastoralist people who slowly settled down to agr-pastoralism over the years. Despite the settlement however the Community at heart is still strongly leaning towards pastoralism.

The survey took five days of data collection in the field. structured questionnaires, observations and group discussion in the form of problem analysis workshops were the main tools of data collection used. Data analysis was done manually and presentation made on pie charts, Venn diagrams, tables and bar charts in percentages, and other appropriate figures or units.

The study found that latrine coverage was low in both sub-locations, standing at 36%. All the latrines present were of traditional type with earthen floors, dilapidated walls improper doors, open roofs and poorly kept. Communitys knowledge on sanitation related diseases was poor but the majority were willing to participate in a sanitation project through

contribution of olocally available resources. Asked why they theought it was important to own a latrine, 34% gave privacy as a reason, 5% said it was a result of neighbours influence,5% due to visitors and 56% said it was due to health and hygiene purpose.

The main source of water was a well (ula ula), and tapped spring(Karare). This water is not adequate and the source decreases in water production as the dry spell is prolonged. However, both sources are protected. Caution here is that the Community resorts to ppen ponds, dry réverbeds, streams and dams during the rainy periods and in most instances this is the period where an upsurge in diarrheal diseases are often common. Water is used for domestic purposes and laudry although a few families share it with livestock. There is a general lack of knowledge on water and sanitation related diseases. Water purification at home is practiced by 39% of the people interviewed(boiling and chemical the rest(61%) did not apply and method of purification.

Housing was generally poor. Lighting, Ventilation and space were not adequate. Some families shared their dwellings with livestock while others used their living rooms as kitchens. Dishracks were not available in majority of home(98%) and there was no handwashing facility in any home.common vectors were fleas, bedbugs,mosquitoes,cocroaches and houseflies and common diseases were Malaria,eye infections and jiggers. Most homes reported presence of rodents.

At the problem analysis workshop, Communitys priority needs were identified as water supplies, poor health,poor farming methods, wildlife menace and livestock diseases. During this time the Community identified the various sectors working with



them and their own expectations from these sectors.

This study recommends that the project use water supply improvement which is at the top of the Community's priority as an entry point. While at Karare existing pipeline could be extended into the villages and roof catchment tanks demonstrated the easy alternative for ula-ula as far as the project scope is concerned should be roof catchment tanks. Sanitation status could be improved through provision of acceptable latrine technology. The VIP latrine technology is therefore most likely to win more community support and demonstration of this latrine should be undertaken. But prior to all these structures, an intensive community mobilization should be given the top priority. It is recommended further that a project committee be formed in both the sub-location, community leaders be trained in an awareness workshop and women groups be supported. Since the people generally lacked adequate knowledge on water and sanitation related diseases community health education should play a central role in project development. For project sustainability to be enhanced local artisans should be trained and inter sectoral collaboration be promoted.

## CHAPTER ONE

### BACKGROUND INFORMATION

#### 1.1 Project description

In 1987 the Ministry of health and SIDA went into an agreement to fund and implement a water and sanitation project, in the 6 districts of Eastern Province.

Marsabit was one of those six districts.

In Marsabit district, the project operated in Sagante location of Central division, Sololo division and Dabel sub-location of Moyale division. After about two years of implementation, project stalled in both Sololo and Dabel due to logistic problems and insecurity in those areas. The project operations then remained in Sagante and move slowly over the years to the adjacent mountain location. Presently, the project intends to extend to the nearby Karare location.

The broad objective of this project is to prevent and reduce water and sanitation related diseases and hence improve the living standard of the Community through promotion of health. This is done through:

- \* demonstration of appropriate water and sanitation facilities
- \* Health Education of the Community
- \* Improved housing
- \* Community mobilization and participation

The specific Objectives are:

1. To train health Workers and Community resource persons such as artisans and leaders
2. To facilitate construction of demonstration water catchment (roof) facilities such as tanks, jars:excreta

disposal facilities such as VIP latrines; improved housing improved jikos and protection of wells.

3. To promote Community's hygiene status through health Education
4. To support women groups in promotion of appropriate home based water and sanitation technologies.
5. To mobilize the Community and enhance their full participation in entire project development.

#### STUDY OBJECTIVE

This study seeks to achieve 6 objectives:-

1. To identify extent of presence of water and sanitation facilities, highlight gap and consequently plan appropriate areas of intervention.
2. To identify specific water and sanitation indicators in the communities which can be used for future evaluation of the project.
3. To assess critical areas where attention should be focussed, in other words justify project priorities.
4. To assess existing resources within the Communities and ways in which these could be utilized.
5. To identify various sectors (governmental and non-governmental, their activities, shortfalls and success) in order to explore possibilities of establishing partnership for effective collaboration and where possible build on their past positive experiences.
6. Assess possibility of Community participation for developing sustainable development.

In order to achieve the above objectives various activities in the Community were examined. These are:-

- \* Demographic and Socio-economic profile

- \* Water and Sanitary conditions
- \* Communities knowledge and practice as concerning water and sanitation related diseases
- \* Home hygiene and food handling methods
- \* Role of governmental and non-governmental Organizations and their achievements
- \* Community priority as far as water and sanitation are concerned.
- \* Resources available for programme implementation to enhance Community participation and sustainance.

## 1.2 PROBLEM STATEMENT

A water and sanitation programmes, funded by SIDA/GOK had been operating in Sagante location of Marsabit district. It is the aim of the programme to slowly move over to the nearby location of Karare and work with these communities. Before the programme implementation, some baseline information is required that establishes what is on the ground as far as water and sanitation is concerned and hence plan the programmes from the information gathered. Survey of these activities would provide comprehensive data which would facilitate better programme planning, implementation and evaluation. Further it would be possible to direct resources to the most pressing needs of the Community and ensure optimal utilization of local resources. Also it would be possible to complement existing programmes, avoid duplication of resources and ensure sound decisions in project implementation. This is in recognition that certain activities are already taking place in the Community even prior to intervention. Further intervention is therefore an added activity building upon prior activities. It is thus useful to assess the present status upon which

intervention will rest. As part of the future project implementation process, therefore a baseline study was conducted.

## CHAPTER TWO

### STUDY METHODOLOGY

#### 2.1 STUDY AREA AND POPULATION

Karare and Hula-Hula sub-location are 2 of the 3 sublocations of Karare location. The 3rd sub-location is songa. Together with Mountain, Sagante and Dirib Gombo locations forms the 4th location of Marsabit Central division. The two sub-location have a total population of about 5000 people. Karare is predominantly occupied by the arial sub-clan with few Rendille population while Hula-Hula is populated by the Rendille tribesmen. Located on the western slopes of Marsabit mountain the two-sublocations are blessed with reliable fainfall and cool weather condition.

The moajor occupation of the Community is agro-pastoralism. However, pastoralism holds an upper hand in that the majority of the formerly nomadic people only recently started practicing farming. The livestock kept are cattle, sheep and goats with a few chicken & donkeys. Main crops grown are maize and beans. The water sources are traditional well(Ula-Ula) and a tapped spring(Karare). However, during the wet seasons dams and reverbeds are a major points of water. There are two primary schools and one dispensary in the two sub-locations.

#### 2.2 Sampling

Sampling in this survey was dependent on the type of data to be collected. When examining the presence and type of latrines in a homestead, sampling was type of latrines in a homestead, sampling was necessary because quantitative data was expected to be derived, but where qualitative information was required from the survey through focus group discussion or

Community meeting, then sampling was not necessary. In villages where household information were required or collected, systematic sampling was applied and used to collect information from those households.

### 2.3 Sample Size

A total of 59 households were visited and information collected from them. With an average of about 6 persons per household, information concerning about 354 persons were thus derived. This is about 10% of the population of the two sub-locations.

### 2.4 Method of data collection

The main method of data collection were by use of structured questionnaires which involved interviewing of the respondents, observation of existing structures, situations and activities. During group discussion where information was collected through dialogue in a community participation workshops, informations on institutions operating in the sub-locations, their functions, strength and weaknesses were discussed. During this time, Community problems and priorities were identified as well.

### 2.5 Survey Period

The survey period was five days. 3days were devoted to household data collection, while 2 days were used in the Community participatory workshops.

### 2.6 Data Analysis

The data collected was manually processed and calculations done using calculatores. Presentations were made in percentages on tables, pie charts and bar charts.

### 2.7 Study Limitations

Language was a barrier during data collection exercise. The data collectors could not directly communicate with the

respondents and interpreters were used for translation.  
valuable information may not have been conveyed effectively  
during this time.



## CHAPTER THREE

### MAJOR FINDINGS

The purpose of water and sanitation survey for Karare and Ula-Ula sub-locations was to provide information required to extend a water and sanitation project already operating in Sagante and mountain locations to Karare location. The Survey therefore aimed at establishing extent of existence of sanitation facilities such as latrines, refuse disposal pits; availability, reliability and safety of water supplies; water and sanitation diseases prevalent in the area, Community's knowledge and hygiene practices as well as their needs and priorities as far as water and sanitation is concerned.

The survey findings are as detailed herebelow:-

#### Gender

Most of the respondents who participated in the survey were females(74.6%). Male were 25.4%. All respondents were adults who were either housewives and male household heads. Absence of many Men from the interview session seems to be purely due to their occupation since the majority could be at foraging livestock which are the backbone of their survival.

#### Marital Status

The survey revealed that the (90%) of respondents were married, 5% widowed, while the remaining 5% were single mothers or divorces. Information on marital status is an indication of social responsibility. Generally, married people share responsibility in the family. This responsibility is heavier for single parents especially when they are women. Even when married however, most women do not have express access to use of family property since the man is the major decision maker. Thus, where issues pertaining to cost sharing were raised

many women respondents seemed reluctant on what they could contribute since the may decision rested upon the husband.

#### Level of Literacy

From the data obtained there is evidence that a large proportion of the respondents(75%) do not know how to read or write either in English or Kiswahili.

#### Occupation and Source of income

The survey revealed that 48% of the respondents are agropastoralists, 22% are exclusively pastoralists, 25% exc;isove;u farmers amd 5% wage earners. Assessment of occupation helps understand and plan whether the Community is economically able to contribute to the project development and if ther is a potentiality for future programme sustainability.

The majority of the respondents(68%) kept cattle, others kept small stocks(goat and sheep). 68% of the people who were farmers had less than 5 acres of land and 95% of them(farmers) planted food crops sucha as maize and beans.

#### HOUSEHOLD OCCUPANTS

Each household had an average number of 6.5 persons.

#### COMMON DISEASES

The following were common diseases mentioned by respondents in order of importance.

Diseases	%
Malaria	81
URTI	73
Diarrhoea	37
Eye infections	29
Jiggers	3

Table 1  
common  
diseases  
as mentioned  
by the  
respondent

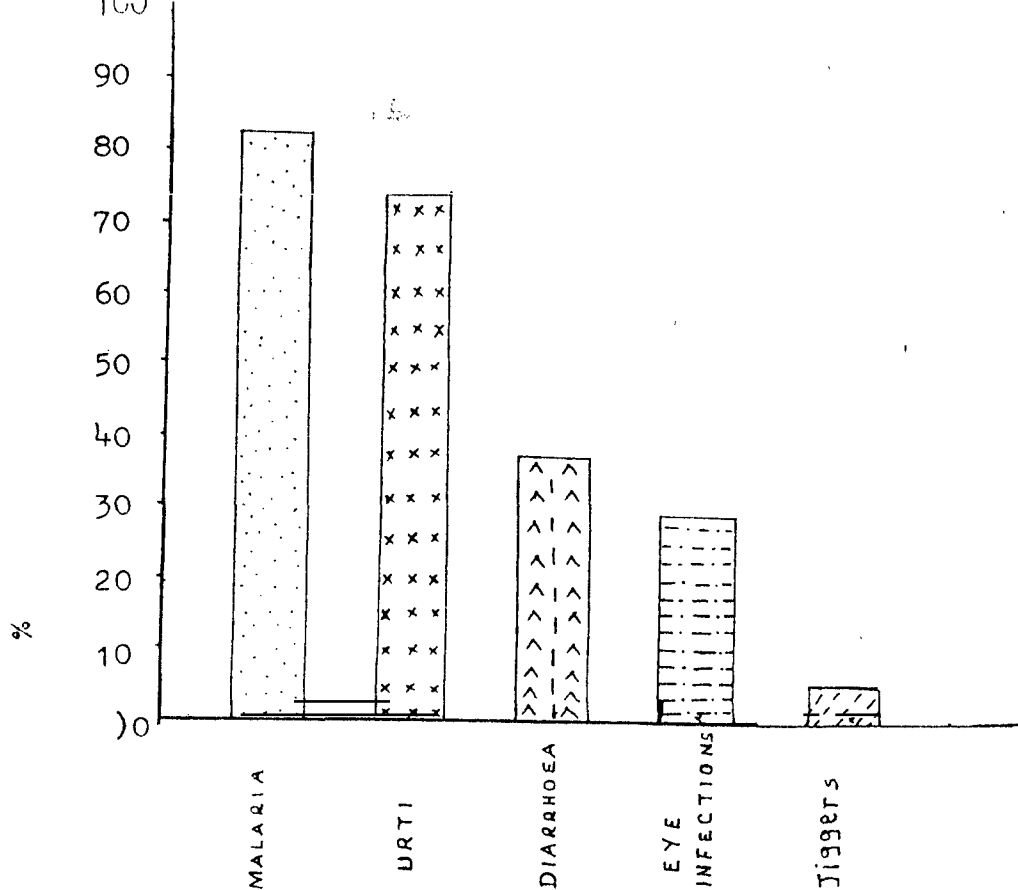


Fig. 0.1

NB: It is thus evident that all the diseases mentioned by the respondents are water and sanitation related.

#### WATER SUPPLY

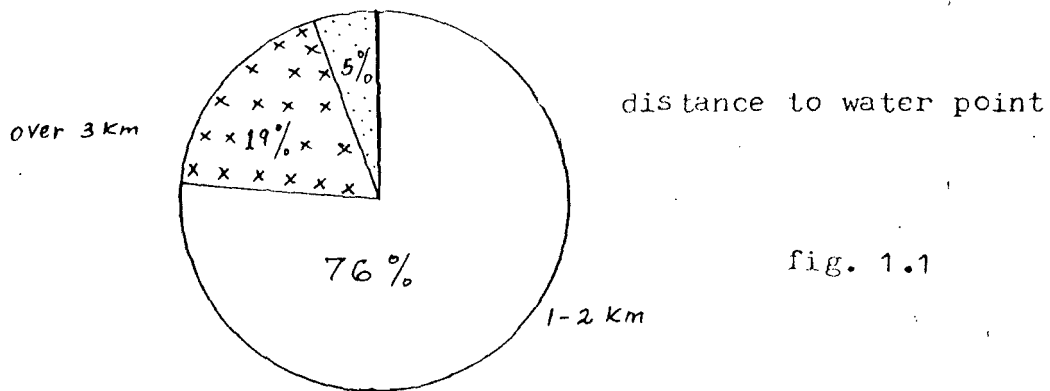
A series of questions pertaining to water sources, reliability, safety, mode of transportation as well as diseases related to and practice of treatment applied were put to the respondents. These questions were expected to explore and enquire into the type of water sources, reliability, safety, as well as time spent to search for water, Community's knowledge on water related diseases, storage method and treatment applied at home. The information derived from here is expected to influence decision and guide implementors, the Community and other interested parties on what actions to take to improve sources, bring water closer home and influence behaviour that may be harmful to community health.

#### WATER SOURCES AND SAFETY

64% of the respondents said they got their water from a well. 32% used tap water from a spring (Karare) and water piped by gravity into the villages. The rest (4%) relied on dam water. 83% of the people interviewed said their water sources were protected.

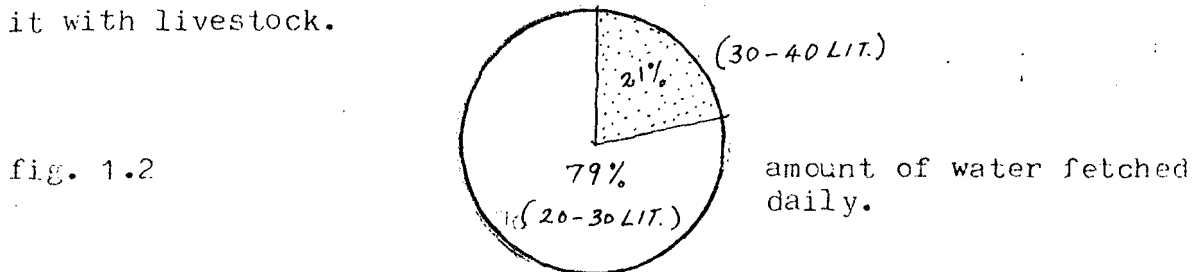
### MODE OF TRANSPORTATION AND DISTANCE TO WATER POINTS

On average the majority of respondents said they walked 1-2km to fetch water (76%), 5% got water from within their compounds and the rest(19%) walked over 3km to the source. Water is fetched by women and girls in 10 or 20 liter jerrycans and sometimes by donkeys. Even those who used piped water, said they had to walk for some distance since these were public standpipes provided at some central place in the villages. However, water is not paid for.



### AMOUNT OF WATER PER DAY AND ITS USE

The study revealed that 79% of the respondents fetched 20-30 litres of water daily, while 21% fetched 30-40 litres. According to 81% of the respondents water is used for domestic activities such as drinking, cooking and washing but 19% shared it with livestock.



### METHOD OF WATER STORAGE AND TREATMENT AT HOME

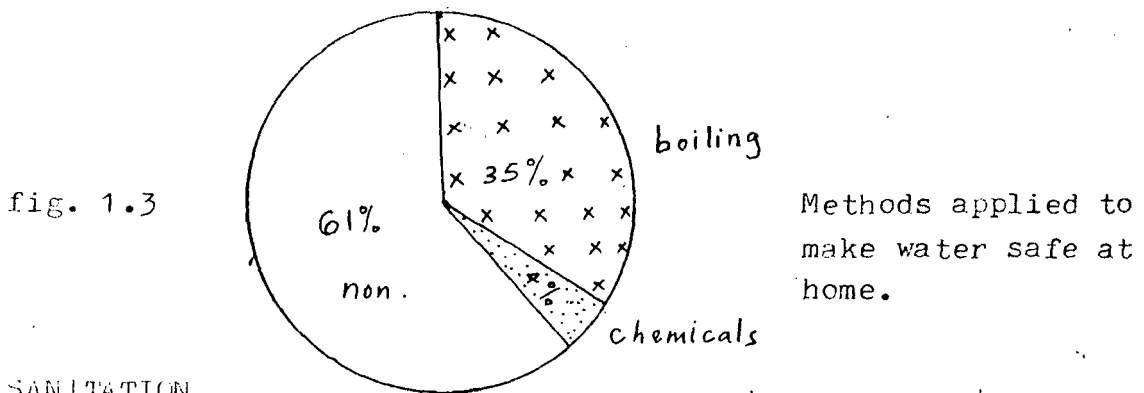
Water is stored in the same (jerrycans) in which it is fetched according to 97% of people interviewed. 78% did not treat their drinking water but 22% said they boiled it before drinking.

### KNOWLEDGE AND PRACTICE

In order to understand the Community's knowledge on dangers posed by contaminated water and diseases related to it questions

were put to them whether they thought unclean water use could lead to ill health, what kind of illness people could suffer and how they thought water could be made safe at home.

According to 85% of the respondents contaminated water would cause ill health. 15% said it did not. Diseases related to contaminated water were mentioned as diarrhoea (29%), Malaria (5%), URTI (24%). 42% of the people interviewed did not know any diseases related to contaminated water. In total 71% did not either know or mention the correct diseases. Asked how they thought water could be made clean/safe at home 35% mentioned boiling, 4% mentioned chemicals and the rest (61%) did nothing.



#### SANITATION

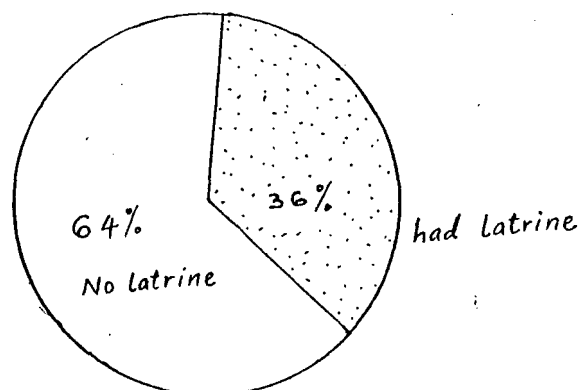
In this study, Sanitation implies to method of excreta disposal. The survey intended to find out the existence or presence of latrines in the community, types of latrines & status of superstructures. This information is expected to give a picture of how many people owned and used latrines, the types of latrines present and the status of superstructures (walls, roofs, floors). This information could help understand the real situation on the ground and advice on what appropriate sanitation technologies could be adapted to uplift the Community's sanitation status and consequently reducing those sanitation related diseases prevalent in these two sub-location. The survey further intended to probe into the Community's knowledge, on the diseases related to non-use of latrines, whether the people were willing to own latrines, what they were willing to contribute and practice of hand washing after using the latrines.

#### LATRINE OWNERSHIP

Assessment of presence of latrines in homesteads revealed that 64% did not have them. Latrines were found in 36% (21) of homes.

### Latrine Coverage

fig. 1.4



### STATUS AND TYPES OF LATRINES

All latrines found in the study area were of the traditional types most of them having no roofs and provided with earthen floors. 86% of them had paths leading to them indicating use, 8% were fairly clean, 76% had earthen floors, while the rest (24%) were concrete. 19% of the latrines had strong superstructures...

### KNOWLEDGE ATTITUDE AND BEHAVIOUR RELATED TO SANITATION

63% of the people interviewed thought it was important to own a latrine. The rest (37%) did not see any importance. 56% of those who thought it was important to own a latrine said it was due to health/hygiene purposes, 5% owned latrines because their neighbours had them, 5% owned latrines because of Visitors while 34% owned it due to privacy.

Reasons for owning or wanting to own latrines

N= 37

Reasons to own latrine	No.	%
Health/hygiene	21	56
Visitors	2	5
neighbours influence	2	5
Privacy	12	34
	37	100%

Table.2

Asked to mention those sanitation related diseases known to them, 59% of the respondents mentioned diarrhoeal diseases, 4% mentioned worms while the rest 37% did not know any sanitation related diseases.

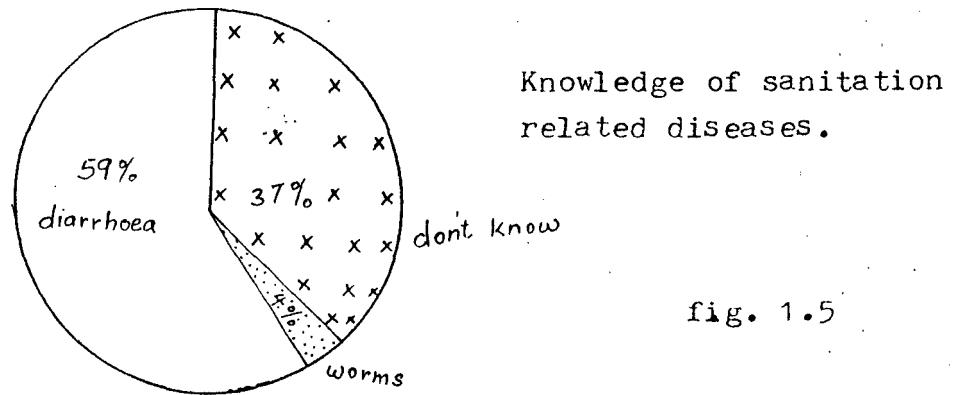


fig. 1.5

WILLINGNESS TO PARTICIPATE IN A SANITATION PROGRAMME

Asked how they thought they could participate in and support a sanitation project 56% of the respondents said they would contribute labour to dig the pit, while 44% were willing to provide the pit and poles/thatch to build the superstructure. However, it was 76% of the respondents who said they were willing to participate in a sanitation programme, and the rest(24%) were not sure they would participate.

HOUSING

Type and Locality

56% of houses visited were temporary huts and 44% were Semi-permanent. 46% of the houses had no windows nor vents, 41% had windows but too small to be called adequate. On locality, 53% of the houses were properly sited on a plain and drainable ground.

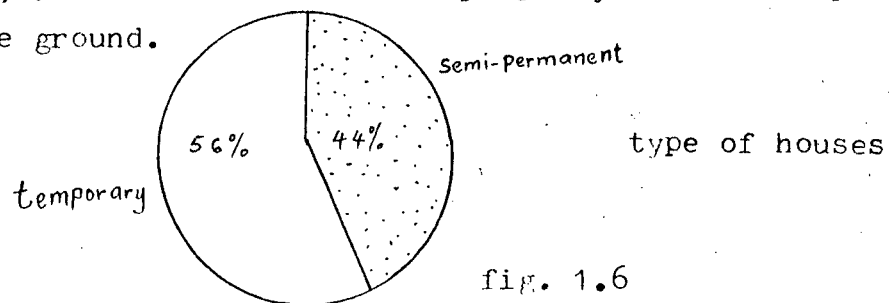
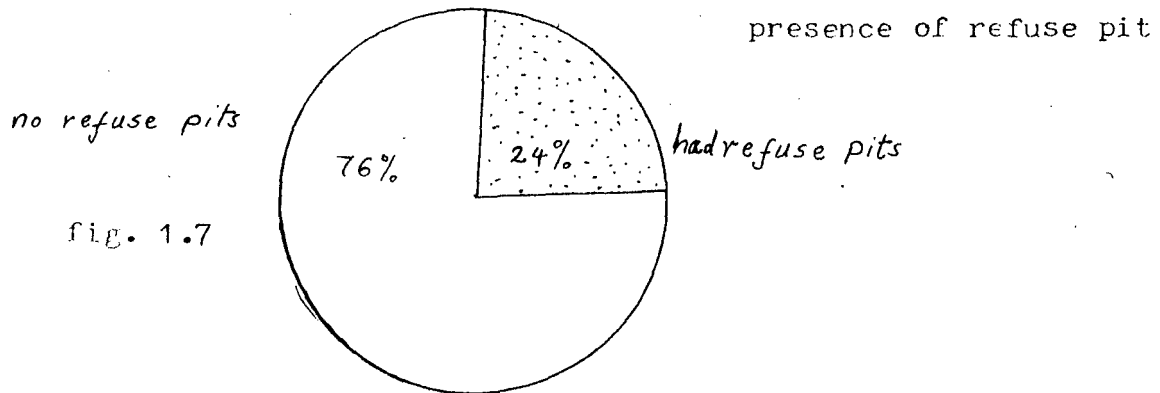


fig. 1.6

Compound cleanliness and waste disposal

The survey found that 58% of the compounds were overgrown with bush and grass and poorly kept as well. 76% of homes did not have refuse disposal pits. 29% of respondents shared their

dwelling with livestock.



#### Cooking area, fire place and availability of dish racks

53% of homes did not have a separate kitchen and used their living rooms for cooking. 47% had a separate kitchen from their living rooms. The 3 stone traditional cooking was used in all the homes (100%). Dish racks were absent in 98% of the homes.

#### LENGTH OF STAY

90% of the respondents had lived there for over 3 years and 93% of them had no intention to move away in near future indicating sedenterzation.

#### VECTORS AND DISEASES SPREAD

Common Vectors identified by the Community are as mentioned here below:-

- Fleas
- Mosquitoes
- Cocroaches
- bedbugs
- houseflies

upon assessment of diseases spread by the Vectors the respondents mentioned jiggers (48%), malaria (46%) and eye infections (5%). 90% of the respondents reported presence of rodents in their homes.



## Institutional analysis

The 5th objective of the survey was to identify the various sectors of government and non-governmental agencies working in the area in order to understand their activities, strengths, weaknesses and Community expectation from them. This is done in a problem analysis workshop through a participatory approach where the Community leaders and other members were actively involved in the discussion process. The aim of this analysis was to explore possibilities of establishing an intersectoral team, learn from their past mistakes and build on their success experiences. During this time, Community's problems and priority needs were discussed as well. Problem analysis table (institutional analysis 1 and 2) which give the detail of each institutions working in the two sub-locations are given separately. To show presence of each sector in the Communities and how closely they are related to the Community an institutional Venn diagram is drawn for each sub-location. Those institutions whose names fall inside the diagram have a closer link to the Community. Those who fall on the external line of the diagram have a much less association while those falling completely outside the diagram are not playing any role there but whose services are required.

At the end of the institutional analysis Community's priority needs are set in the order of importance with the most important need at the top of the list.

PAW AT HULA-HULA

INSTITUTIONAL ANALYSIS

INSTITUTIONS	THEIR ACTIVITIES	THEIR STRENGTH	THEIR WEAKNESSES	COMMUNITY EXPECTATION
1. CCF-(MFHP)	<ul style="list-style-type: none"><li>* pay fees for poor children</li><li>* Give uniforms to sponsored children</li><li>* Help Sponsored family</li><li>* Provided School text books</li></ul>	<ul style="list-style-type: none"><li>* able to educate poor children</li><li>* Built houses to completion</li><li>* Could fulfill promises</li></ul>	<ul style="list-style-type: none"><li>* Sponsored Children are diregistered (sometimes) without proper explanation</li><li>* Not all fees are paid to completion</li><li>* Some children never get sponsora</li></ul>	<ul style="list-style-type: none"><li>* complete payment of fees.</li><li>* All children should be sponsored</li></ul>
2. CATHOLIC MISSION	<ul style="list-style-type: none"><li>* Built Church (spiritual development)</li><li>* School Built</li><li>* Assist Women groups</li><li>* Pay fees</li><li>* Mobile clinic (nutritional)</li></ul>	<ul style="list-style-type: none"><li>* Visible development</li><li>* Schools, Church, tanks</li><li>* Help without bias</li><li>* Could fulfill most of promises</li></ul>	<ul style="list-style-type: none"><li>* Not hurrying to build dispensary</li></ul>	<ul style="list-style-type: none"><li>* Continue giving necessary help</li></ul>

3. FODD FOR THE HUNGRY INTERNATIONAL

- \* Improve for production through  
-demonstration farm  
-Electric fence

- \* Train TBAs
- \* Provide Water (dam)
- \* Relief food (FFW)

\* Provided electric fence

\* Demonstration farm provided

\* Built big dam

\*

\* Built dam without taking Community ideas into serious consideration

\* Dam not holding water \* Respect Community's suggestions

\* Some promises could not be fulfilled  
e.g aid to women groups, bulls for improved breeds etc

fulfill promises

---

4. MINISTRY OF EDUCATION

- \* Child education
- \* school feeding programme (lunch)

\* Employ teachers

\* Provide lunches for children

\* Frequent shortage of teachers

\* Feeding programme starts late

---

5. OFFICE OF THE PRESIDENT (ADMINISTRATION)

- \* Security
- \* Coordinate development activities
- \* Link between Community and development agencies (Chief)

\* Provided Security

\* Always with the Community to see and report their problems

\* Administration Police have no houses

6. MINISTRY OF HEALTH

- \* Home visits
- \* Health education Communities
- \* Seminars/ Workshops
- \* Pegged latrines
- \* demonstrated water jar
- \* Carried out health education
- \* Held Seminars/ trainings for Communities
- \* Follow-up latrine constructions programmes
- \* constructed demonstration jars
- \* No more services since PHT has disappeared.

7. GTZ

- \* Building of a teachers houses
- \* Supplied school with textbooks
- \* Building of teachers house
- \* Supplying School with textbooks
- \* went away

8. MINISTRY OF AGRICULTURE

- \* Improve farming activities/Methods
- \* Provide farming tools
- \* Advice on right seeds
- \* Soil conservation
- \* Provided farming implements
- \* Soil conservation activities carried out
- \* No extension services being provided

9. CPK

- \* Spiritual development
- \* Build Church
- \* Childhood education
- \* Built Churches
- \* Built nursery School
- \* Pay nursery teacher
- \* Food Kitchen not provided
- \* Latrine for school has collapsed

10. MINISTRY OF  
WATER DEVELOP.

- \* improve water supply
- \* Repaired damaged water source

- \* Built tank for Well
- \* Covered part of Well

- \* Have gone away since

11. AFRICAN MUSLIM  
AGENCY

- \* Spiritual Develop.
- \* Build Mosque

- \* Built Mosque
- \* Provided food to malnourished children
- \* Quran teaching (Madrassa)

- \* No Sheikh
- \* Latrine for mosque was not completed
- \* Kitchen never completed

12. INTER AID

- \* Building of school tank
- \* Building of school Kitchen

- Built tank to completion
- \* Built Kitchen to completion

- \* went away

13. DRP

- \* Well Protection
- \* Covering of Well tank

- \* Protected Well
- \* Covered Tank

- \* Went away

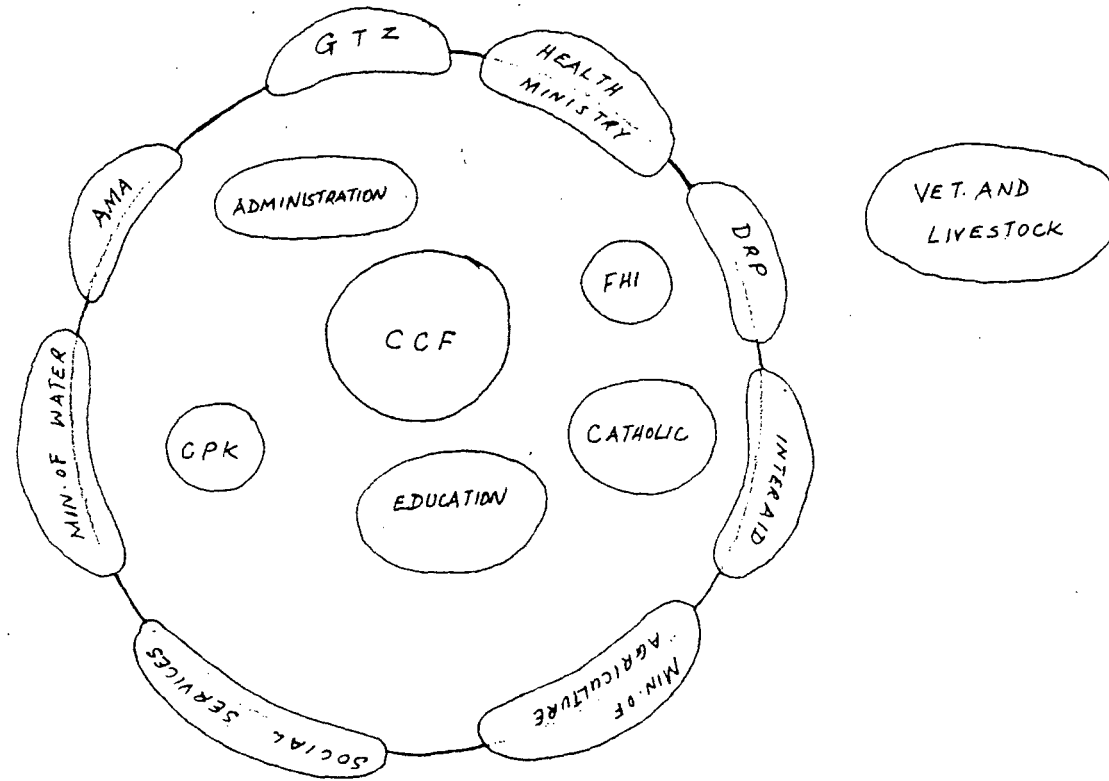
14. CULTURE &  
SOCIAL SERVICES

- \* Adult Education & Women groups

- \* Employed adult teachers
- \* Employed Adult teachers
- \* formed Women groups
- \* built a house for Women group

- \* no fulltime teacher
- \* Women group not active
- \* Went away

fig. 1.9



PROBLEMS AND PRIORITIES OF HULA-HULA COMMUNITY

PROBLEM NO.	POSSIBLE SOLUTION	ACTION BY
*. WATER	1. Solicit fund from institutions/NGOs to improve amount of water 2. Community to build roof catchment tanks	* NGOs * Government Sectors * Community
2. HEALTH	1. Provide mobile clinic services 2. Primary Health Care 3. Health Education 4. Latrines and refuse pits 5. Provision of a dispensary services	* Ministry of Health, NGOs * Community

3. POOR FARMING METHODS AND FOOD INSECURITY	<ol style="list-style-type: none"> <li>1. Extension workers to Educate Community in better farming methods</li> <li>2. Avail farming implements to the poor</li> <li>3. Demonstrate better food storage method</li> </ol>	<ul style="list-style-type: none"> <li>* Ministry of agriculture</li> <li>* NGOs</li> </ul>
4. CROP DESTRUCTION BY WILD ANIMALS	<ol style="list-style-type: none"> <li>1. Provision of a better electric fence</li> <li>2. Improvement of security by providing Warders</li> </ol>	<ul style="list-style-type: none"> <li>* Kenya Wildlife Services</li> </ul>
5. LIVESTOCK DISEASES	<ol style="list-style-type: none"> <li>1. Provision of cattle dip</li> <li>2. Provision of Veterinary Extension services</li> </ol>	<ul style="list-style-type: none"> <li>* Veterinary department, NGOs, Community</li> </ul>
6. LAND DEMARCATION	<ol style="list-style-type: none"> <li>1. Plots/Land demarcation should be done</li> </ol>	<ul style="list-style-type: none"> <li>* Land adjudication department</li> <li>* County Council</li> </ul>

PAW AT KARARE SUB-LOCATION  
INSTITUTIONAL ANALYSIS

INSTITUTIONS	THEIR ACTIVITIES	THEIR STRENGTH	THEIR WEAKNESSES	EXPECTATION
1. FOOD FOR HUNGRY INTERNATIONAL (FHI)	<ul style="list-style-type: none"> <li>* Development activities e.g               <ul style="list-style-type: none"> <li>-water project</li> <li>-electric fences</li> <li>-child sponsor</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>* Initiated</li> <li>* water project</li> <li>* provided electric which reduce menace of wild animals</li> <li>* pay fees for sponsored children</li> </ul>	<ul style="list-style-type: none"> <li>* Water project not completed</li> <li>* Left quickly</li> </ul>	<ul style="list-style-type: none"> <li>* should have completed water project.</li> <li>* should have stayed longer</li> </ul>

2. CATHOLIC MISSION	<ul style="list-style-type: none"> <li>* Spiritual develop</li> <li>* Education</li> <li>* Health Care</li> <li>* Food Security</li> </ul>	<ul style="list-style-type: none"> <li>* Built Church</li> <li>* Built School &amp; teachers houses</li> <li>* Built dispensary</li> <li>* Extension of electric fence</li> </ul>	<ul style="list-style-type: none"> <li>* Dispensary staff few</li> <li>* Electric fence had no enough power and did not pass where Community wanted</li> </ul>	<ul style="list-style-type: none"> <li>* More Nurses</li> <li>* Proper/Powerfull fence</li> </ul>
3. MINISTRY OF EDUCATION	<ul style="list-style-type: none"> <li>* Primary Education</li> <li>* School feeding programme</li> </ul>	<ul style="list-style-type: none"> <li>* Children Education</li> <li>* Provide teachers</li> </ul>	<ul style="list-style-type: none"> <li>* Some teachers do other work</li> <li>* School girls Sometimes get married without teachers being aware and giving advice</li> </ul>	<ul style="list-style-type: none"> <li>* Should be aware of whatever is happening at school</li> </ul>
4. MINISTRY OF HEALTH	<ul style="list-style-type: none"> <li>* Health Education</li> <li>* demonstration latrines</li> <li>* Immunization</li> <li>* ORS Supply</li> <li>* Provid Solar Power to dispensary</li> </ul>	<ul style="list-style-type: none"> <li>* Community Education(health)</li> <li>* Community trainings</li> </ul>	<ul style="list-style-type: none"> <li>Made Community dig latrines but could not provide other support</li> <li>*One roof catchment tank promised never provided</li> <li>*They later disappeared</li> </ul>	<ul style="list-style-type: none"> <li>* Complete latrines and provide more</li> <li>* Provide roof catchment tanks</li> <li>* Extend pipeline into the trading Centre</li> </ul>



INSTITUTIONS	THEIR ACTIVITIES	THEIR STRENGTH	THEIR WEAKNESSES	COMMUNITY EXPECTATION
5. GTZ	<ul style="list-style-type: none"> <li>* Built teachers houses</li> <li>* Dam constructions through FFW</li> <li>* Built school tank</li> <li>* Provided breeding bulls</li> <li>* Provided castration Equipment</li> <li>* Conducted training on livestock Management</li> </ul>	<ul style="list-style-type: none"> <li>* Completed all projects</li> <li>* Could fulfill promises</li> </ul>	<ul style="list-style-type: none"> <li>* Give aid through government departments which some-times do not reach the Community</li> </ul>	<ul style="list-style-type: none"> <li>* Build cattle dip</li> <li>* Should give direct aid without going through others</li> </ul>
6. CCF	<ul style="list-style-type: none"> <li>* Aid poor families &amp; children</li> <li>* Built houses for some families.</li> <li>* PHC activities</li> </ul>	<ul style="list-style-type: none"> <li>* Give aid to the sponsored families as planned</li> </ul>	<ul style="list-style-type: none"> <li>* Children sponsored are few</li> <li>* Some help they give are not used Well</li> </ul>	<ul style="list-style-type: none"> <li>* They should complete project so that resource are not wasted</li> </ul>
7. MINISTRY OF AGRICULTURE	<ul style="list-style-type: none"> <li>* Soil conservation</li> <li>* Provide seedlings &amp; farming implements</li> </ul>	<ul style="list-style-type: none"> <li>* Completed project in time</li> <li>* Conducted Community training</li> </ul>	<ul style="list-style-type: none"> <li>* Gave very little seedling</li> <li>* Could not provide</li> </ul>	<ul style="list-style-type: none"> <li>* Need more seeds</li> <li>* Need pesticides</li> <li>* Need agricultural extension resource</li> </ul>
8. AIC	<ul style="list-style-type: none"> <li>* Spiritual services</li> <li>* Build Community Water tank</li> <li>* Build Church</li> <li>* Build Nursery school</li> </ul>	<ul style="list-style-type: none"> <li>* Completed tank</li> <li>* Spiritual Develop.</li> <li>* Child Education</li> <li>*</li> </ul>	-	-

9. VETERINARY DEPARTMENT

- \* Livestock Vaccination
- \* Accaricides

\* Vaccinates livestock

\* No extension Worker

- \* Supply of Vet.drugs
- \* Stationed extension Worker
- \* Education on use of cattle dip.

10. INTER-AID

- \* Built school Kitchen
- \* Provided pipes for water extension

\* Built Kitchen to completion for the school

\* Some promises not fulfilled

- \* Full piped water to the Villages
- \* Cover the Community water tank

INSTITUTIONAL VENN DIAGRAM - (KARARE)

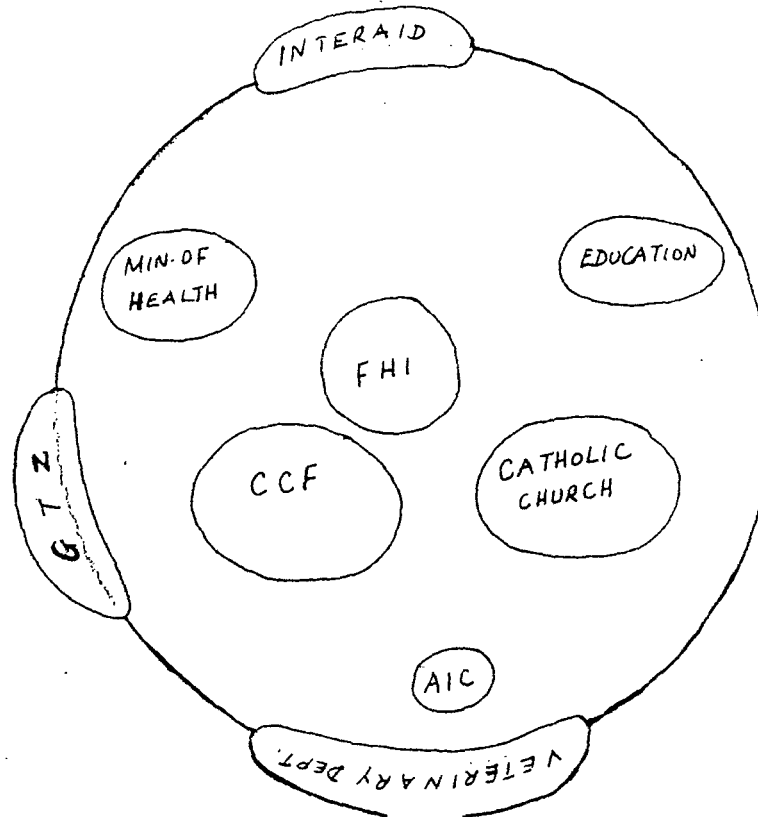


fig. 1.8

PROBLEM AND PRIORITIES OF KARARE COMMUNITY

PROBLEM NO.	POSSIBLE SOLUTION	ACTION BY
1. WATER SUPPLY	* Extension of pipes to villages * Roof Catchment tanks *	* Inter -Aid * Ministry of health(Public health) * Community
2. ACCARICIDES/VET. SERVICES	* Supply Veterinary drugs * Post extension Worker * Educate on use of dip	* Veterinary department * NGOs * Community
3. HEALTH	* Demonstrate more pit latrines and tanks * More nurses to be posted * Station a PHT therē	* Ministry of health(Public health) * Catholic Mission * Ministry of health
4. STENGTEN WOMEN GROUPS	* Provide more support * More trainings to women groups	* NGOs * Community * Social Service Sector
5. AGRICULTURAL PRODUCTION	* Post extension worker * Provide more seeds * Provide more pesticides	* Ministry of agriculture

## CHAPTER FOUR

### DISCUSSION

It was found that water was within 1-2km walk for majority of the Karare/Ula-ula people. 20-40 litres are fetched daily by girls and women in plastic jerrycans in which it is stored and directly used. The main sources of water were well(ula-ula) and spring(Karare) both of which are protected. However, during rainy periods many families used water collected in dry river beds, surface dams and pools since these are easily found nearby. Roof catchment tanks were only found in schools. The Community had little knowledge of water treatment or purification methods they could apply at home; water related diseases were also not known to the majority of the people interviewed, even though the majority of them thought that unclean water may cause ill-health.

Time and energy saving are said to be the most immediate and easily measured benefits of water supply provided closer to Communities and frequently this is most appreciated by the benefitting Community. However, the magnitude of time saving depends on conditions prevailing. The fact that women and girl of Karare/Ula-Ula sub-locations walked 1-2km to fetch water does not justify them saving time expressly. It was found during the survey that 10litre jerrycans were used to fetch water per trip and 3-4trips were made to fill the total of 30-40 litres required daily, thus spending more even though there are protected water sources in the two sub-locations, they don't seem reliable. At the problem analysis workshops held in the two sub-locations, water supply was at the top of community priority need. It was said that the water is shared between huge livestock population and people, and as drought is prolonged the the water dwindles to a level that no longer supports the intended population.

There is a gap in knowledge of the Community on water related diseases, while the majority thought that unclean water use may lead to the ill health they could not mention the diseases they thought were arising from such waters. Neither did they apply any method of water purification at home. The fact that people turned to dams, dry riverbeds and pools during rainy period further strengthen, the argument deficiency in knowledge on water-related diseases. If they recognized that such exposed surface water could lead to illness, they couldn't use it and if they used it they would apply domestic purification methods which still was not known to the majority.

Latrines were not available in most homes. Where they were found, they were of traditional types with earth floors, dilapidated walls, and without roofs. They were generally poorly maintained although all were in use. While most people in study area thought that it was important to have a latrine and even showed willingness to participate in a sanitation programme, the majority lacked knowledge on sanitation related diseases.

Several factors are attributed to lack of latrine ownership in rural communities, these range from peoples' former way of life (nomadic pastoralism as in Karare/Ula-Ula), knowledge of the Community on sanitation related diseases, lack of adequate resources or poverty, bad experiences from earlier use of latrines (smell and flies), Community priority, presence of other alternatives (nearby bush) as well as physical features (rocks, sandy soils, swamps etc).

Experience within the district (Sagante) showed that most people did not like the traditional latrines because of smells and flies and snakes which they harboured & fear of children falling into them. Introduction of the VIP latrine in Sagante

encouraged more people in Sagante to build more latrines because the concrete floor and a relatively smaller squat hole improved the latrine hygiene and reduced the danger of children falling into them while the vent pipe helped eliminate the smell and fly nuisance

Asked why they had latrines, the latrine owners in Karare/Ula-Ula gave reasons such as health/hygiene, privacy, visitors and neighbours which influenced them to have latrines. Elsewhere in the district(Maikona) outbreak of diarrhoea diseases which claimed many lives in 1992 influenced the Community to own communal latrines while in Sagante privacy and elimination of bush in areas to the vicinity of homes influenced latrine ownership. (1).

Some people were urged to own latrines because neighbours simply annoyed them by locking their latrines and thus denying them access(Sagante-Drib Gombo). From the above experiences therefore it would be correct to conclude that unless painful or life threatening experiences such as the one of Maikona are met with, people in rural areas may not simply build latrines merely on health/hygiene purposes. A combination of socio-economic, physical, cognitive and diseases experiences may thus influence positive behaviour change.

It was found that the most of the respondent knew one or two diseases related to poor sanitation. Unfortunately, a significant 37% lacked these knowledge. Good health and good hygiene are made possible by a combination of Education, improvement in personal hygiene and appropriate water and sanitation technology.

The surveys suggests that the Karare/Ula-Ula community are willing to participate in a sanitation project by either digging the pit or digging the pit and providing locally available materials for building the superstructure(poles,mud and thatch). It is

essential to involve the community in a sanitation programme if success has got to be achieved. The people and not technology are at the centre of social development. Advancement of peoples capabilities and quality of life should be the primary aim of any agency who feel development oriented. While technical personnel may be more competent on promoting appropriate technology it would be advisable to involve the community in deciding how the projects are implemented in their own communities. It should be understood that people have a great deal to offer towards success of the projects. Although it takes a highly sensitive and motivated staff to capitalize on these community resources in a meaningful way, the element of involving the community in decision making should be taken quite seriously. As long as technical personnel or agencies continue to play the role of \* Providers\* and the Community \*receptient\* rather than as partners in the project which may involve them passively in its development then a meaningful social change may not simply be realised(World bank-introduction participants notes(2).

Housing conditions affect peoples health and daily livelihood. In the study area most houses were temporary huts which are poorly lighted poorly ventilated and even overcrowded. Still some families shared their dwelling with livestock and a good proportion had no separate kitchen. Compounds were overgrown and poor maintained. Housing may affect health in a number of ways. A combination of dampness, lack of light, poor ventilation and overcrowding will contribute to the spread of airborne droplet infections. Earth floors and walls and unscreened windows permit the entry and breeding of bed bugs and mosquitoes. Cooking fires on floors are hazards to children and food is prone to contamination.

Good housing should minimize physical and biological hazards in the environment and should promote the health of the inhabitants. (3). In overcrowding people are exposed to numerous health risks since more people are living within a single dwelling than there is space for, so that movement is restricted, privacy precluded, hygiene impossible, rest and sleep difficult( promoting health in human environment WHO). (4).

Handwashing facilities and dish racks for drying and keeping utensils safe were not available in any home. Presence of these facilities would enhance personal and home hygiene.



## CHAPTER 5

### CONCLUSION

#### Demographic and Socio-economic information

1. Most respondents are female married adults who were mainly housewives. Majority of the interviewers are illiterate who do not know how to read and write in either English or Kiswahili. Agropastoralism is the main occupation of the people of Karare and Ula-Ula sub-location. Livestock kept are cattle, goats and Sheep. Main crops planted are maize and beans.
2. The most common diseases mentioned by the respondents are Malaria, URTI, diarrhoea, eye infection and jiggers, all of which are water and sanitation related.

#### WATER SUPPLY

1. Water is within easy reach for the majority of the people (1-2km) and most sources are protected but availability depends on seasonality, scarcity being reported during the dry spell.
2. 20-40 litres of water is fetched daily by most of the respondents and is used for drinking, washing and livestock purposes.
3. On water related diseases, the majority said unclean water may cause ill-health although a significant number (42%) did not know those diseases. 61% of the respondents did not apply any method of water treatment at home.

#### SANITATION

1. Majority of homes (64%) did not have latrines and those that were present in 36% of homes were of traditional types. NO handwashing facilities were available in any home.
2. Most of the respondents thought it was important to own latrines (63%) , but a significant 37% did not see any importance of owning one. However, 56% of those who owned latrines did so due to health and hygiene purposes, 34% owned it due to privacy, 5% had latrines because neighbours had them and 5% due to visitors.

3. The majority of respondents mentioned sanitation related diseases as diarrhoea and worms, although a significant number(37%) did not know any diseases arising due to non-use of latrines.
4. On willingness to participate in a sanitation project, the majority were willing to participate by digging pits and providing poles for building latrine walls. 26% were not sure they would participate.
5. Majority of the households in study area were semi-permanent and poorly ventilated but well located on a well-drainable ground.
6. Compounds were overgrown with grass and bushes. Most of them had no refuse disposal pits.
7. 53% of houses had no separate kitchens and all families used the traditional three-stone fire. No dish rack was available in any home.
8. The study revealed that 29% of the families shared their house with livestock.
9. On assessing the length of stay, most families had lived there for over 3years(90%) and 93% had no intention to move away, indicating sedenterization.
10. Common Vectors found in the two sub-locations are fleas, mosquitoes, cocroaches, bedbugs and the housefly. The most common rodents are rats.
11. Diseases said to be spread by, vectors were mentioned as Jiggers, Malaria and eye infections.

## CHAPTER 6

### RECOMMENDATION

Based on the study findings the following recommendation are made:-

1. The Karare and Ula-Ula Community seem to give top priority to water supply. The project should make improvement of water to the community as an entry point. In Karare alternative of extending existing pipeline into more villages should be explored and if possible be supplemented with roof catchment tanks or jars. In Ula-Ula the best possible intervention would be through provision of roof catchment facilities. Improvement of or expanding existing sources seem to be too expensive for the project since its scope is improvement of minor water supplies.
2. Alongside the project health education should be introduced. This should be carried out in a participatory manner where the Community is deeply involved in the learning process. Important areas to be covered should be water and sanitation related diseases, method of water purification, personal hygiene and home hygiene.
3. The best way to improve the sanitary status of a Community such as Karare/Ula-Ula is by mounting an intensive Community mobilization. It may not be very easy to achieve the aim of high latrine coverage but with use of experienced agents and Community involvement this essential but often neglected aspects of a water and sanitation project may turn out to be the major success of this project. Since the Community was willing to participate fully there is good potentiality for successful implementation.
4. Community involvement should begin from the initiation phase of the project. The Community leadership (both formal & informal) should be trained in an awareness workshop and enlightened on project direction and their roles.
5. Creation of a project Committee in both sub-location to run the project with the public health personnel is essential. The Committee shall be responsible for planning, implementation and decision making as well as evaluation.

6. Women groups should be supported and allowed to function under the project Committee.
7. The Beneficiary representatives should be responsible for selecting beneficiaries of each facility, the health office or personnel should play no or little role in this area.
8. Home hygiene such as cutting down of vegetation, refuse disposal pits and provision of dish racks should be encouraged and included in project plans. The need for separate kitchen should be emphasised too and energy saving jiko be demonstrated. Keeping of livestock in living rooms of people should be discouraged.
9. Vector control activities should be introduced; Environment Control measures should be emphasised and only when this fail should chemical control be resorted to.
10. Local artisans from the two sub-location should be trained and used to build demonstration and other facilities for the project.
11. A public health technician should be posted to the two sub-location. This personnel should preferably be a Rendille/Samburu speaker who know the Community's language and culture well.
12. Various government secors and NGOs working in the Community should be approached with the aim of cfeating a strong intersectoral team, and building a conducive programme implementation atmosphere.
13. The Community has a potential resource from which the project can get support. There are livestock as well as fertile agricultural land which has reliable rainfall. The project should as much as possible try to encourage the Community to contribute available resources to enhance better coverage. However, the poor members of the Community should be assisted more than anybody else.



ASSESSMENT OF WATER SUPPLY AND  
GENERAL SANITATION IN KARARE LOCATION,  
MARSABIT DISTRICT

GENERAL INFORMATION

Socio-economic situation

6

1. sub-location .....
2. name of the respondent .....
3. sex of the respondent .....
4. age of the respondent .....
5. position in the family .....
6. marital status .....
7. level of education .....
8. number of occupants .....
9. what do you do for a living?
  - a) farmer
  - b) pastoralist
  - c) agr-pastoralist
  - d) wage earner
10. if a farmer, acreage of land owned
  - a) less than 5 acres
  - b) 5-10 acres
  - c) more than 10 acres.
11. if a pastoralist which livestock do you keep?
  - a) cows
  - b) goats
  - c) sheep
12. name five (5) common diseases people normally suffer here
  - a)
  - b)
  - c)
  - d)
  - e)

A. WATER SUPPLY

1. from where do you get your water for domestic use?

- a) tap
- b) dam
- c) spring
- d) well
- e) roof catchment tank
- f) others (specify)

2. how far is this source from your home?

- a) within the compound
- b) 1-2 km away
- c) 3-5 km away
- d) over 5 km away

3. Do you pay for the water ?

- a) yes
- b) no

4. How is water transported home?

- a) by pipe
- b) on foot
- c) by donkey

5. How much water do you fetch daily?

- a) less than 20 lt.
- b) 20-30 lits.
- c) 30-40 lits.
- d) more than 40 lits.

6. Is the source protected?

- a) yes
- b) no

7. How is water used at home?

- a)drinking only
- b)drinking and washing
- c)drinking, washing and livestock
- d)drinking and livestock.

8. Where do you store your water?

- a)pots
- b)jerry cans
- c)buckets
- d)drums
- e)others (specify)

9. Do you treat your water at home?

- a)yes
- b)no

10. If yes how?

- a)boiling
- b)storing
- c)chemicals
- d)others (specify)

12. Do you think that unclean water can cause ill health?

- a)yes
- b)no

13. If yes name the diseases associated with dirty water.

- a)
- b)
- c)
- d)

14. What do you think can be done to improve water quality at home?

- a)
- b)
- c)
- d)



B. SANITATION

1. Do you think it is important to own a latrine?

a)yes

b)no

2. If yes, why?

a)

b)

c)

d)

3. If no, why not?

a)

b)

c)

d)

4. Mention the diseases that are associated with non use of latrine

a)

b)

c)

d)

e)

5. If there was a latrine construction project in this area, would you like to participate to have your own latrine?

a) yes

b) no

6. If yes what would you contribute?

a)

b)

c)

e)

C. HOUSING AND FOOD HYGIENE

\*1. Do you keep livestock in this house?

- a. yes
- b. no

2. For how long have you lived here?

- a. less than 1 year
- b. 1-2 years
- c. over 3 years

3. Do you intend to move away from here in the near future?

- a. yes
- b. no

D. VECTORS AND RODENTS

4. Which are the vectors commonly found around?

- a.
- b.
- c.
- d.
- e.

5. Name the diseases that you think are spread by these vectors

- a.
- b.
- c.
- d.

6. Are there rodents in this compound?

- A. yes
- b. no

OBSERVATION CHECKLIST(SANITATION)

1. Availability of latrine
  - a. present
  - b. absent
2. Type of latrine
  - a. traditional
  - b. vip
  - c. others (specify)
3. Path leading to the latrine
  - a. present
  - b. absent
4. State of latrine
  - a. cleanliness
    - faeces on floor/no faeces on floor
    - flies/no flies
  - b.type of floor
    - wooden
    - earthen
    - concrete
  5. c.structure
    - strong
    - fair
    - dilapidated
5. presence of handwashing facility
  - a. present
  - b. absent

OBSERVATION CHECKLIST? (HOUSING AND FOOD HYGIENE)

1. Location of the house
  - a.elevated
  - b.plain
  - c.valley
  - d.swampy
  - e.others(specify)
2. Type of the house
  - a a.permanent
  - b.semi-permanent
  - c.temporary
- 3.Lighting and ventillation
  - a.windows/vents provided adequately
  - b.windows/vents poorly provided
  - c.no windows/vents provided
4. Condition of the house
  - a.roof
  - b.wall
  - c.floor

good      fair      poor
5. General cleanliness of the compound
  - a.overgrown
  - b.litterd
  - c.fairly kept
  - d.clean.
6. Presence of refuse pit
  - a. present
  - b. absent
7. Presence of dish rack
  - a. present
  - b. absent
9. Type of cooking stove (jiko) present
  - A. traditional
  - b. energy saving
  - c. others (specify)

10. Presence of a separate kitchen

- a. present
- c. absent

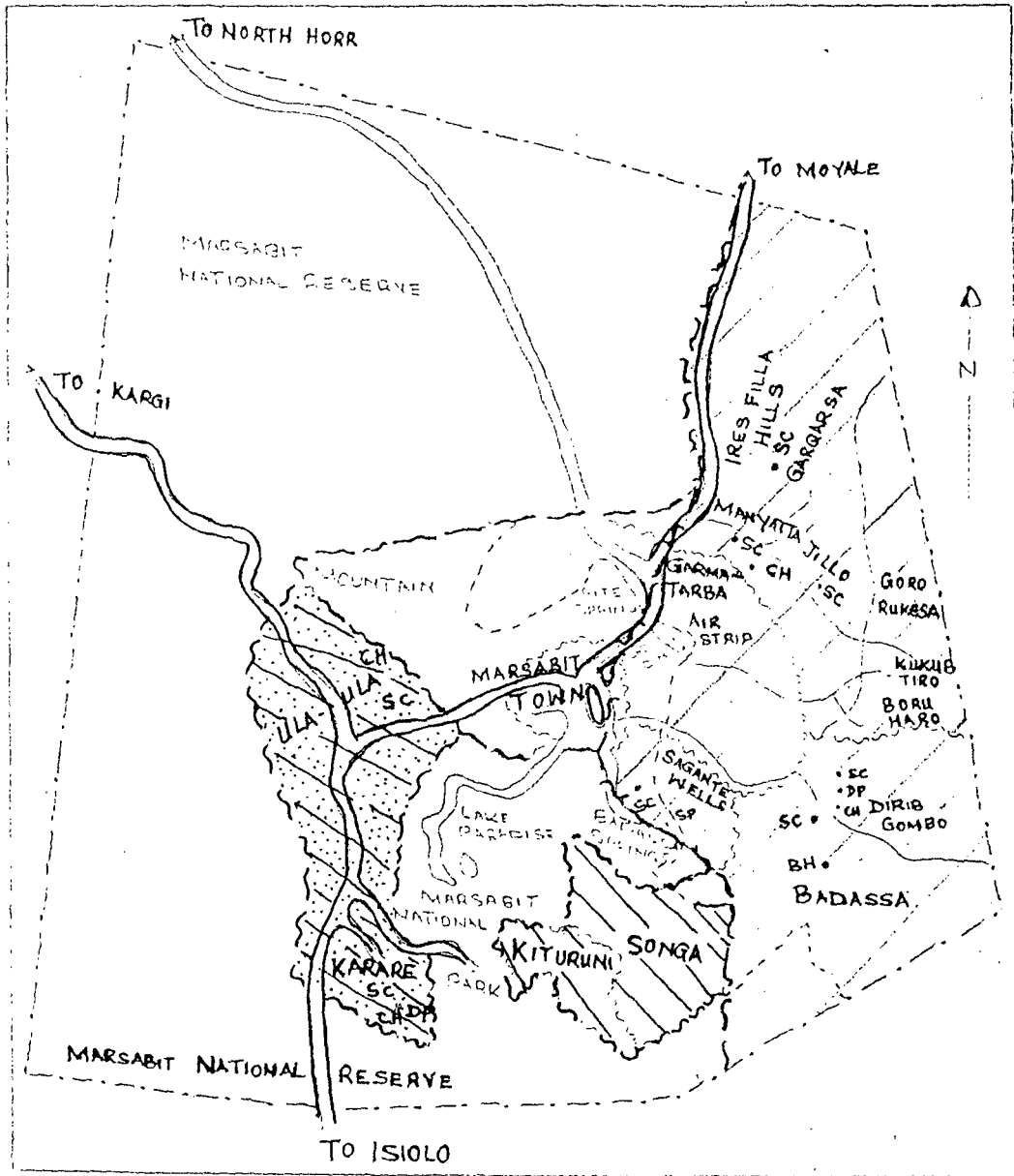
COMMUNITY PROBLEM ANALYSIS (DISCUSSION)

1. Mention all the NGO,s and governmental sectors who have worked here before and those who are here now.
2. What were/are their function or activities?
3. Mention their strengths and weaknesses (if known)
4. What are your expectations from them?
5. Name the most common problems that hinder development here
6. Which are the most pressing problems in order of priority?
7. What do you think can be done to reduce them and by whom?

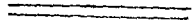



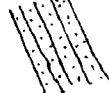
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SKETCH MAP

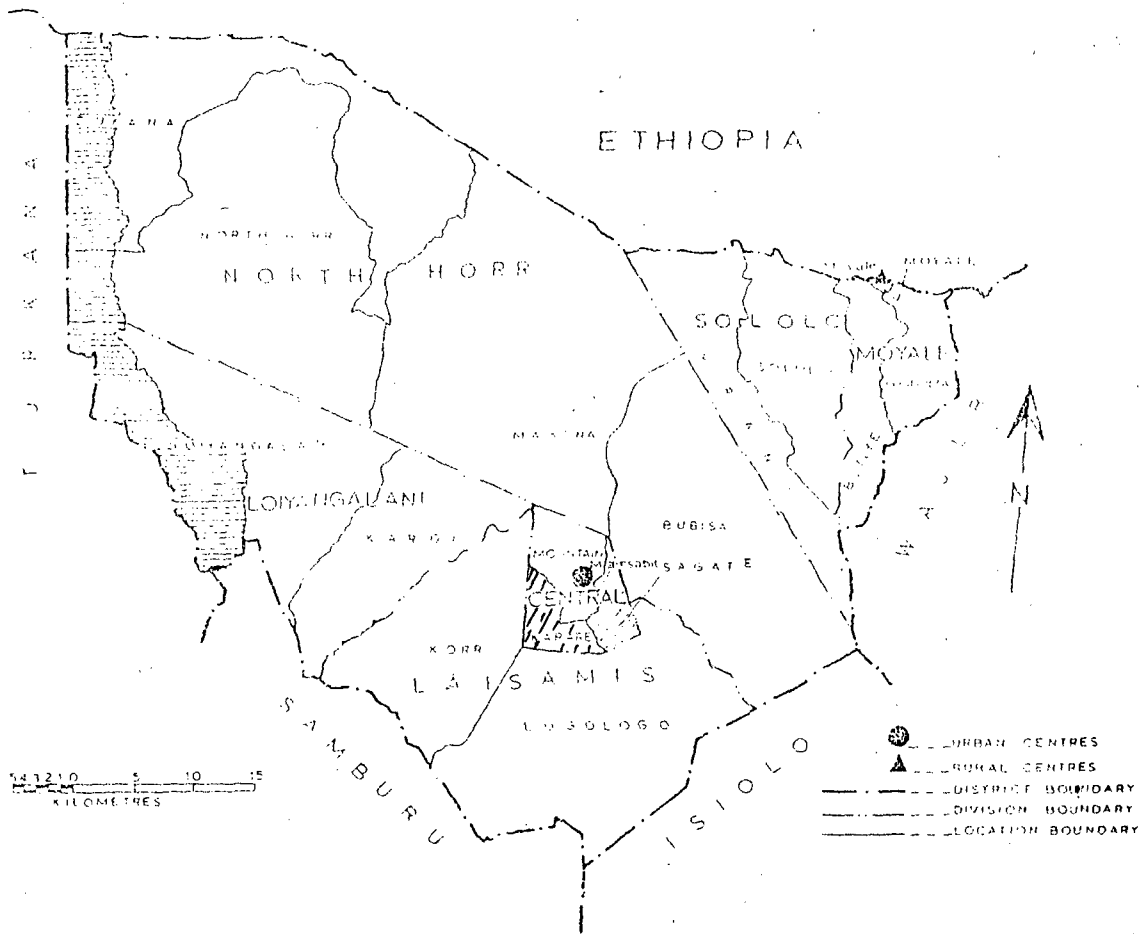
MARSABIT CENTRAL DIVISION - AREA OF STUDY



KEY

- |   |                                  |                 |
|---|----------------------------------|-----------------|
|  | Major Motorable roads            | DP - Dispensary |
|  | Minor roads                      | SC - School     |
|  | Area of Study (Sagante Location) | SP - Spring     |
|  | Administrative boundaries        | BH - Bore-hole  |
|  | Area of study                    | CH - Church     |

# MARSABIT DISTRICT ADMINISTRATIVE BOUNDARIES



# Location Of District

59  
62  
79  
84  
88  
95  
99  
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