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KNOWLEDGE, ATTITUDES AND PRACTICES
RELATED TO
WATER AND SANITATION

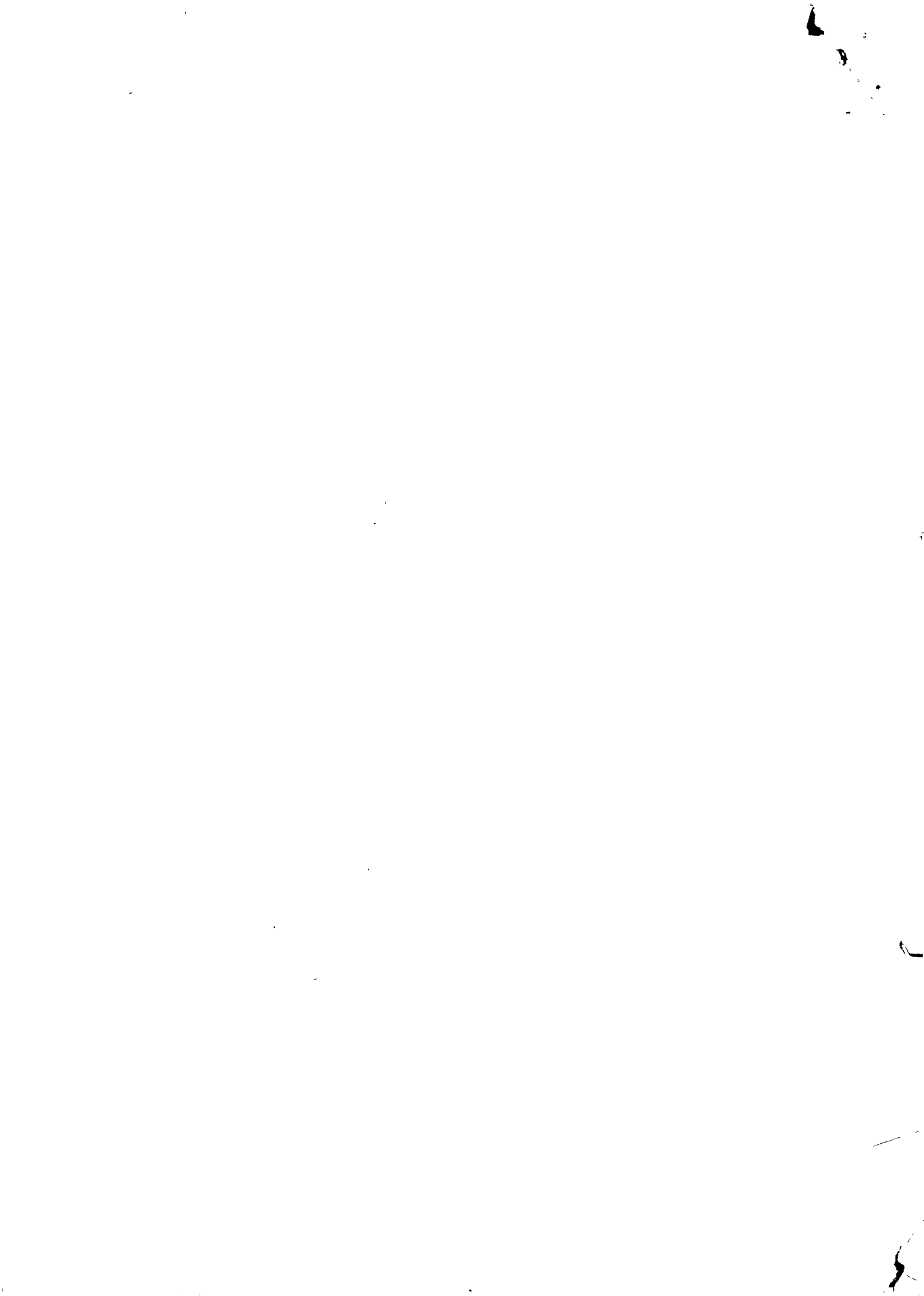
Result of a study in six
villages of
north-West Frontier Province of Pakistan

by

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WATER AND SANITATION IN MANSEHRA DISTRICT

INTRODUCTION

Lack or inaccessibility of sufficient water is one of the main problems adversely affecting the quality of life in Pakistan and directly accounts for the high morbidity, especially in rural areas. It is estimated that less than 2% of the rural population has access to sanitation facilities while in urban areas it is about 10%, which is slightly better but hardly adequate. The same unsatisfactory conditions apply to access to potable water.

As part of UNICEF's mandate to improve the welfare of children and their families, intensive efforts are being directed towards upgrading knowledge about water and sanitation, improving facilities and positively enhancing attitudes and behaviour in support of government development work.

1981-1990 has been designated the International Water Supply and Sanitation Decade by the United Nations. In keeping with these emphases UNICEF and the Government of Pakistan started a series of related activities. A major initiative is the training of Water and Sanitation Promoters in the basics and principles of providing low-cost, simple yet efficient technological innovations for improving excreta disposal, hygiene and water accessibility and quality. The first course, held at Mirpur in Azad Kashmir in 1982, brought together participants from all over Pakistan including 7 from the North-West Frontier Province (NWFP). On completion of the course the 7 NWFP Promoters returned to work in government positions in the field of water and sanitation.

Because of the paucity of data, these activities would have had to be carried out in a vacuum. Without adequate information about the Knowledge, Attitudes and Practices (KAP) of the people in water and sanitation, demographic characteristics or geographical data, there was no basis to plan an effective programme to improve conditions. In order to have reference to a reliable data base for planning, implementation, monitoring and evaluation, a KAP study was designed and implemented in Mansehra district of NWFP in mid-1982.

The aim of the study was (1) to ascertain the knowledge, attitudes and practices of the people on water and sanitation within their geographical, demographic and cultural context; (2) to ascertain the types of water and sanitation facilities used and preferred; (3) to ascertain any relationships between these aspects which would enhance or hinder the effective implementation of water and sanitation activities; and (4) to make recommendations.



ANALYSIS AND INTERPRETATION OF DATA

WATER

Nearest Water Source

Of the 252 respondents in 6 villages (see annex 1), only 4.9% have inside taps and 36% have public stand-pipes, i.e. less than half have access to piped water. This is still the nearest source for the largest percentage, however; wells are the next most-used source, and then a spring or river. The majority travels between 11-100 yards and spends between 6-30 minutes for each trip. About a quarter makes over 6 but less than 10 trips daily. Water is used especially for drinking and to a slightly lesser extent for bathing and washing, but very little of this home-use water is used for animals.

Next Nearest Water Source

Most people's second water source is a spring or river, while slightly fewer people use wells as their second water source. Not many canals exist in this area. 46.8% have to travel less than 100 yards to their second source but a close second in number are those who travel between 1/4 mile and 1 mile = 39.2%.

Nearly a quarter of the people with a second source make between 5-10 trips daily to collect water but overall 62.7% of respondents with a second source make less than 10 trips daily which last less than half hour each trip.

Of the approximately 65% persons with a second source, at least 90% of them use it for drinking, washing and bathing but less than half use it for animals.

Water Sources, Collection and Storage

In general women are responsible for water collection but this varies considerably from village to village, since some children are the regular water bearers. Earthenware pots are preferred both for collection and storage.

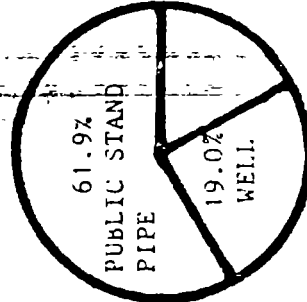
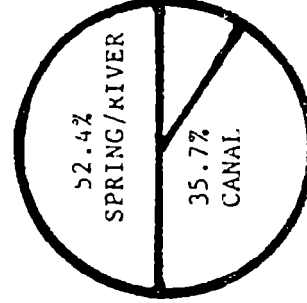
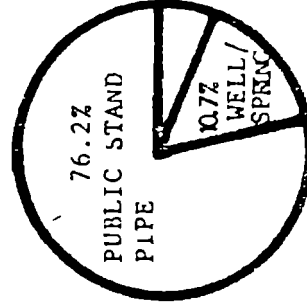
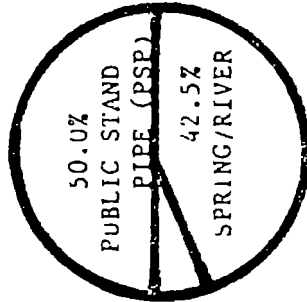
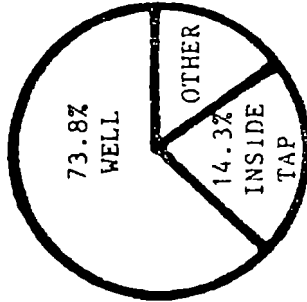
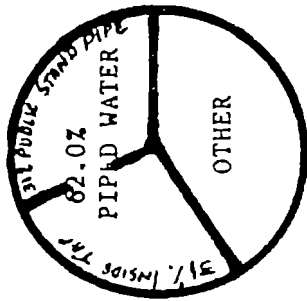
Respondents indicate for the most part that their source is neglected. Just a little over half (57.9%) say anyone maintain the source, and if someone maintains the source they are not sure what this person does.

A few persons claim to have to pay water rates or expend money for water, but these claims are dubious since interviewers are reliably informed that such claims are made in hope of getting subsidies or external assistance.

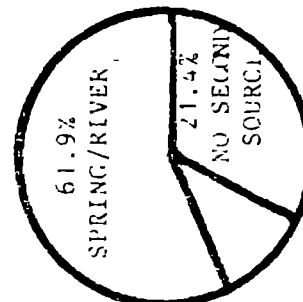
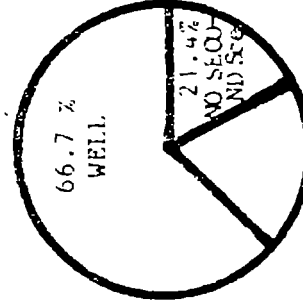
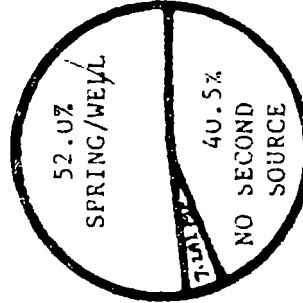
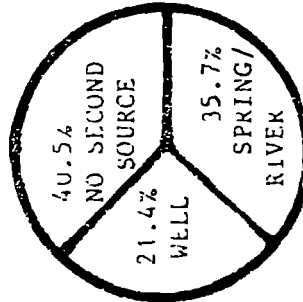
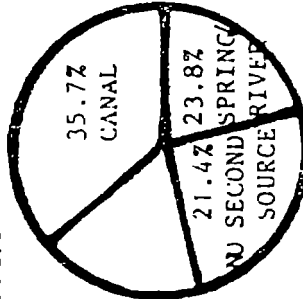
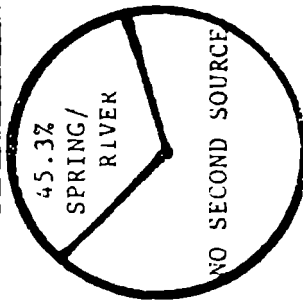
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EXISTING AND PREFERRED WATER SOURCES

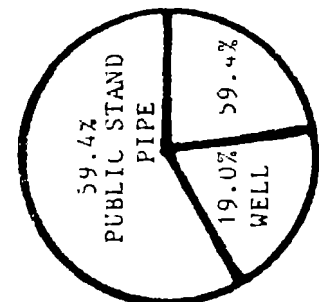
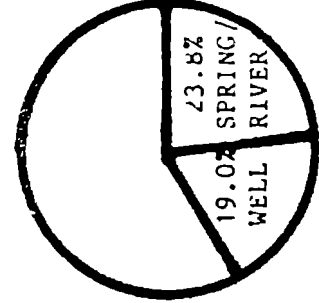
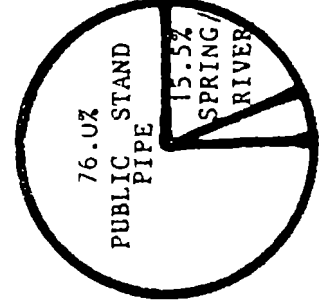
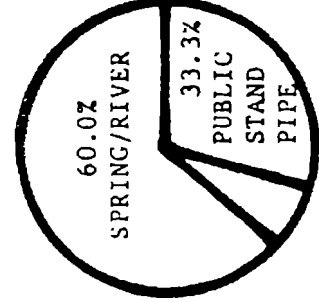
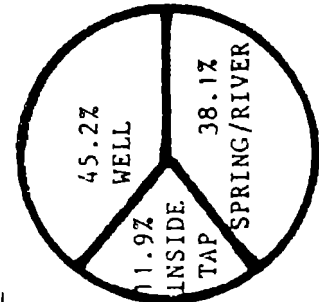
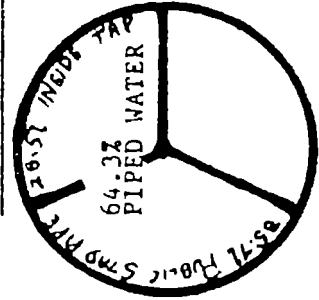
Nearest Source



Next Nearest Source



Preferred Source



BALAKOT

OCHI BAZAR

PESHORA

PHAGLA

PULRAH

SHIN KIARI

Knowledge and Attitudes about Water

In general respondents are quite well satisfied with their water quality both in terms of taste and healthiness. However, there are some discrepancies since some people who claim that water is safe and good, say it is dirty. In some cases too the taste is good but it is either dirty or causes disease.

Approximately 273 of the respondents have no idea of water borne disease. Those who do mention diseases do have a fair idea of the names and their causes.

It is, therefore, not surprising that seeing no necessity for pure water, very few know any way of purifying water. 148 persons either know no method or feel that the water needed no purification, or have never tried any method.

For 2/3 of the people safe water simply means piped water which does not necessarily always hold true thereby showing complete ignorance of the real principles involved. Boiling as one of the methods of purification is hardly suggested, except in one village where respondents in one sector near the health unit seem to have acquired some knowledge.

Respondents are not particularly keen to have their own private source, which augurs well for community participation and co-operation.

Only a mere 38.1%, however, are willing to pay for use of a new source and fewer are willing to contribute anything, especially "in kind"; labour is the preferred contribution.

PERSONAL HYGIENE & WASHING

Physical Facilities

Most households - 88.5% persons - use indoor facilities for women, or at least one near the house.

Only 27% of men use indoors. These facilities are mostly a bathroom but one fourth just use a dividing curtain. The bathroom is mainly used by women and children; one fourth use it for children only and one fourth have a bathroom but do not use it.

Hygiene Practices

Only one fourth know the Quranic teaching on hygiene.

In many villages children are allowed to go unsupervised with regard to personal hygiene but in most cases an adult lady, not usually the mother, is in charge.

Generally hygiene levels among adults was quite high, especially regarding washing hands before cooking and after defecation, but correspondingly the percentages for children's hygiene was much lower: over 95% for adults and only about 83% for children.

Only half the population interviewed uses soap, but at least one third use water only.

Washing of clothes is mostly done inside, especially for villages with a well or standpipe, since space for washing at the source is limited. The other source usually refers to spring.

More people wash pots inside than clothes: 20% more. Only 50% use soap exclusively: soap is "stretched" using a mixture of abrasives and alkalis by the other half. Cleaning pots is done with soap and mud + coal + ashes (49%), soap and water (50%).

Additional Comments

It is dramatically evidenced from the data that people who take daily baths, both in winter and summer, never according to the data suffer skin diseases. The greatest sufferers of skin ailments are persons who bath only every three months.

Persons having Water

	Persons taking	All year	Part Year	Total
SUMMER	Baths daily	114	78	192
	Baths weekly	37	6	43
	TOTAL	151	84	

The same obtains for water availability all day:

Persons having Water

	Persons taking	All day	Part day	Total
SUMMER	Baths daily	156	34	190
	Baths weekly	35	8	43
	TOTAL	191	42	

The same picture obtains in winter, when availability daily and all year govern the frequency of baths.

Of the 33 persons with eye disease, there is only one person who bathes daily during winter who has this problem. The 14 persons bathing weekly and 16 bathing monthly, have eye disease.

Bathroom facilities are more common among middle income group persons, i.e. Rs.500-1000. Only 4.9 or 2 persons of this entire group have no facility compared to 9.8 in the Rs.1,000+ group and 72.1 in the Rs.500 or less set.

Of this middle income group the bath room is either a separate room or behind a curtain, while the other income brackets have considerably less "sophisticated" facilities.

HUMAN EXCRETA DISPOSAL

Cleaning

Over 70% of all respondents in the six villages use mud/soil or water for cleaning after defecation. Pulrah is a noticeable exception.

Satisfaction with these practices is also evidenced for a clear majority of 70%.

Men use mud/soil more frequently than women and children. Only 39% persons are using water for cleaning.

Disease spread

Three fourth of the respondents are convinced of the danger of both adult and baby's excreta with the exception of respondents in Pulrah.

Most people also know that disease could be spread by excreta but half know none of these diseases.

The most given excreta-related disease is malaria which is incorrect in any case but cholera is known by a few and a mere five persons even know diarrhoea as being spread by excreta.

Disposal Methods

The most used disposal methods are open-air: first and foremost in the field, then to a lesser extent near the houses and streets.

Of the latrines the flush system is most used.

Other systems of disposal include: pit and dry latrine and in the open on the compound.

The flush toilet is the most preferred system for half those who voice a preference - as a function of its cleanliness, even though some people had never seen or used one.



The pit latrine is the least liked method but most people do not give reasons for their likes or dislikes.

The great majority of persons do not cover excreta in the field and nobody cleans this way.

Over 70% persons do not use excreta as manure. Those who do not know if it is used, obviously don't use it themselves. Most people do not use it either by itself or mixed with anything else because they found it filthy and had a bad smell.

Most people have no latrine and half of them do not even know if a latrine exists in their village.

90 of the 250 persons, less than 45% persons think they are good but most have no opinion on them.

98.4 do not know how to use a latrine properly and 97.6 have no one to clean it (and perhaps are unwilling to clean it themselves).

Most people who have no latrine, lack one because they are unable to afford it, but know nevertheless how they function and are enthusiastic about having one. One third are willing to contribute something towards the objective of obtaining at least one.

About two third of the respondents have water adequate for operating a flush system.

Other reasons for not having a latrine are: No one to clean it = 92.1, Other (no) 84.9, Cannot afford = 49.6

Cleaning and Disposal Source correlated

Of the 6 persons using pit latrines, 5 use water and one uses stones.

Of the 9 persons using dry latrines, 3 use parts of plants, 1 use stones, 2 use cloth & paper and 3 use water.

Of the 20 persons using flush toilets, 6 use plants, 4 mud, 3 stones, 2 cloth & paper, and 11 water.

Of the 196 persons using the field, 11 use plants, 99 mud, 10 stones, 3 paper or cloth, and 71 water.

For women and children in particular, those using pit latrines use plants or water; those using flush use plants or water as do those using the compound while those using the field use water and soil, mostly, and a few use plants.

LATRINE INTEREST AND PREFERENCE

	BALAKOT	OGHI BAZAR	PESHORA	PHAGLA	PULRAH	SHIN KIARI
100						
95						
90						
85						
80	Prefer		Inter-			
75	Flush	xxxxxx	sted in			
70	Lat-	Inter-	having			
65	rine	sted in	a lat-			
60		having	rine			
55		a lat-	xxxxxx			
50		rine	xxxxxx			
45		xxxxxx	xxxxxx			
40		xxxxxx	xxxxxx			
35		xxxxxx	xxxxxx			
30		xxxxxx	xxxxxx			
25		xxxxxx	xxxxxx			
20		xxxxxx	xxxxxx			
15		xxxxxx	xxxxxx			
10		xxxxxx	xxxxxx			
5		xxxxxx	xxxxxx			
0		xxxxxx	xxxxxx			

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Hygiene and Income

Of the 16 persons earning over Rs.1,000 per month, 6 only have latrines and these have dry latrines.

Of the 28 persons earning between Rs.500-1,000 per month, 13 have latrines and 9 of these are flush type. Thus there is a larger percentage representing the middle income group who install latrines.

In overall numbers the biggest group with latrines - mainly flush and pit - are those in the less than Rs.500 per month group, but they account for only 12.6 or 22 of the 175 persons in this income bracket.

Desire to install a latrine is not a function of increased income. Of the 4 persons who say they are willing to spend Rs.1,000 on latrines, 2 earn less than Rs.500 per month. Of the 55 willing to spend Rs.500, those in the 500-1,000 per month bracket are most willing to spend.

Similarly, it is this middle income group who are most conscious about hygiene in that they either hire a sweeper or themselves clean excreta away.

Willingness to build a latrine is to some extent affected by house-ownership. Twice as many owners are willing to build latrines as are tenants, but nearly equal percentages of owners and tenants are unwilling.

Hygiene and Education

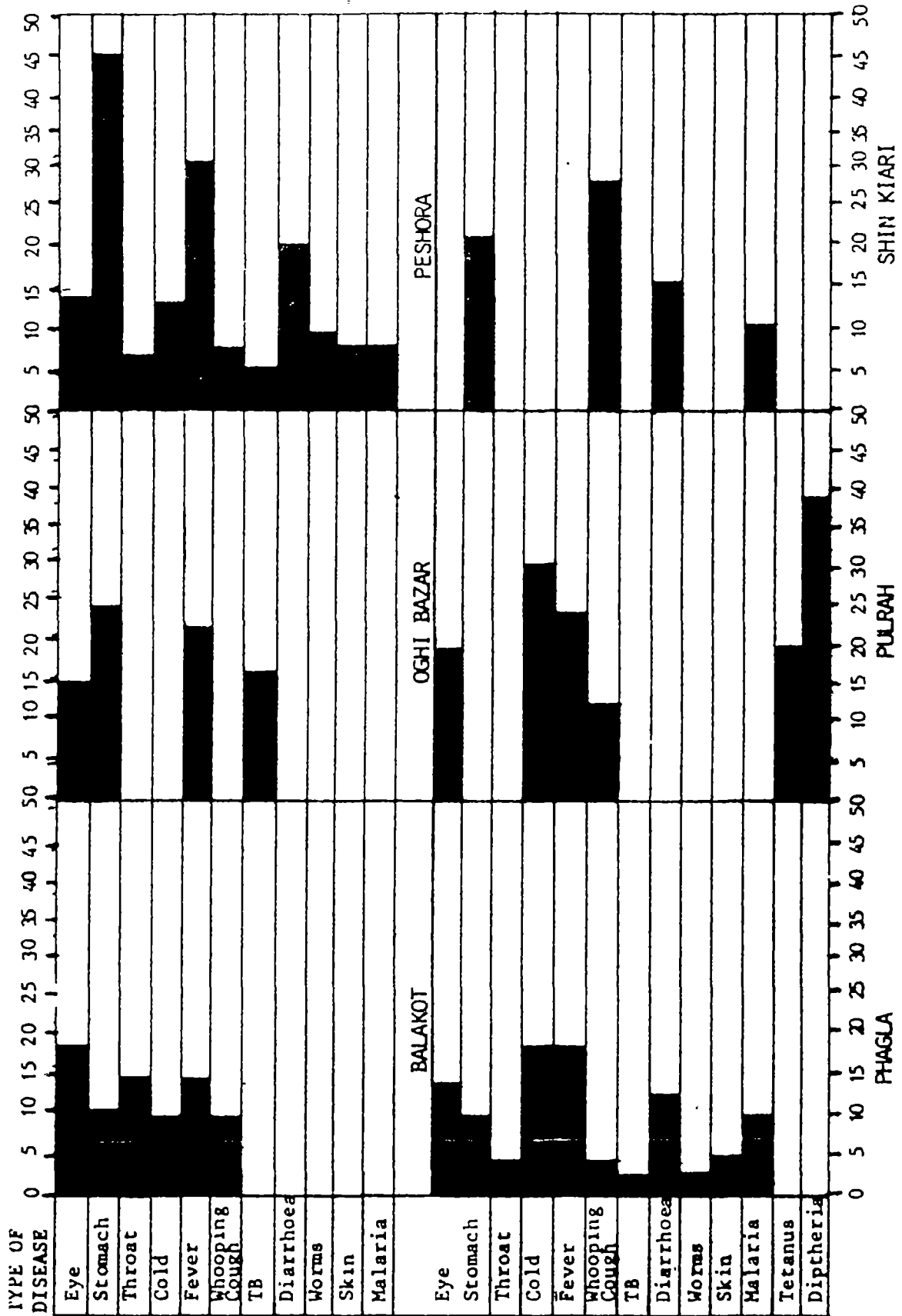
With regard to disease spread, of 15 persons educated above Level 6, 73.3% knew flies are carriers, and of the 175 with no education, an equal percentage of persons are privy to this knowledge. The percentage who least know are in the Level 1-6 bracket, both about flies and dirty hands as carriers. However, equal percentages know as do not know.

Of the persons with no education, this group has the largest percentage of persons saying NO to disease being caused by bad food, dirty hands, flies or bad water. This indicates complete ignorance; while in the case of bad water there are several in this group who are unsure but consider the possibility so their response is: DON'T KNOW.

WASTE WATER, ANIMAL EXCRETA & REFUSE

The major disposal place for waste water is in the street or lanes outside the house in all villages. The exceptions are those farming villages where it is used to help water the fields.

Besides this water use in the fields by a small percentage, few persons reuse water.



Many people do not realise or pay attention to the presence of dirty water in their environment and those who do, blame their neighbours.

Animal excreta is sometimes disposed of as manure although in some cases when it is put in the field it is simply thrown there without first ensuring proper decomposition. Some persons simply dump it in the street but this is localised to specific villages.

Besides manure, it is used as house construction material and fuel but this again is localised to only certain villages.

About one fourth of respondents obtain animal excreta from external sources even though they have no animals. Thus one can conclude that for most households this is not an important item generally.

Nearly 60% persons know human excreta is dangerous and causes diseases.

In nearly all villages many respondents claim knowledge (which they do not have) about certain diseases: few can name any disease and many are wrong in their answers. Malaria is widely thought to be caused by animal excreta and its consistent citation by respondents marks it as a widespread problem.

Nearly 60% persons are convinced animal excreta is less dangerous than human excreta and those 26.2% person who "do not know" show by their uncertainty that they must consider it a possibility that animal excreta is less dangerous.

FUELS AND HOUSE

Sources

Wood is the most used fuel, with kerosene the next, but this seems to be used almost exclusively for light and possibly to cause quicker ignition of other fuels.

Dung is used by only 9 of the 252 respondents, with possibly those 11 who use "filth".

118 or 46.8% persons do not have adequate fuel all the time or most of the time but even those who say they have enough fuel still would like more. Gas is the most preferred fuel even though only a few persons presently have access to its use.

Less than half of the respondents have electricity and a slightly larger number use kerosene lamps.

Costs

More than half persons have pucca houses and 76.6 have kucha or partly kucha structures.

Some people, especially in the poorest village, spend nothing on fuel but these are few.

On the whole most persons spend on fuel or cooking. More than half the respondents spend over Rs.50 for cooking, heating and light and for heating and cooking over 75% are spending in excess of Rs.50 per month.

Electricity is available to a little less than half; gas is virtually unused except perhaps by an "elite" 22 persons only or about 3 per village.

Piped water services are accessible to little over half the persons and over 60% have neither inside bathrooms or separate kitchen.

Mud is the main construction material with bricks and cement again the property of the more affluent; and even then this affluence is concentrated in some villages only.

Very few people have adequate number and size of rooms and proper ventilation to comfortably accommodate the family members, who generally averages in number about 8 per household.

CONCLUSIONS/RECOMMENDATIONS

The major findings of this study point to the fact that:

1. Knowledge levels on water and sanitation are very low - the majority of persons do not know:
 - (a) What is safe, pure water?
 - (b) Methods of water purification
 - (c) Proper maintenance of water source
 - (d) Water borne diseases and their causes
 - (e) The danger of human excreta, or animal excreta, refuse or waste water
 - (f) How disease is spread by excreta, flies, contaminated hands or bad food, or dirty, impure water.

Most importantly very few know the religious teaching of the Quran on these aspects and are therefore, not even religiously rather than educationally or logically aware of these matters. This leads to the second finding.

2. That people are bound by their ignorance and tradition to several erroneous practices, a situation compounded by illiteracy, unawareness and a lack of inquiry or inquisitiveness, as well as an inability to link phenomena, familiar or unusual.

3. Lack of knowledge and adherence to long practised traditions has bred, among many, an attitude of unquestioning acceptance of things as they are, even when evidence of experience refutes it or should lead to questioning. The several contradictory responses uphold this contention; for example "Water is dirty but it is good and safe for health". However, lack of interest can be to a great extent a result of ignorance or lack of knowledge. The advantages of a flush latrine, if known might be all the motivation needed.
4. Poverty and lack of resources inhibit changes also. People, in the poorest village, for example, when asked to voice a preference could not envisage or imagine owning a water source like tap water. They could not afford it so it was not voiced even as a preference.
5. Attitudes towards physical facilities and objects are somewhat more relaxed. Traditional facilities can be changed with much greater ease than for example attitudes towards human excreta - the uncompromising answer is: "It is filthy -- dirty, etc". Whereas no one objected to a flush toilet on the ground that they never used it before.
6. Sanitation facilities for the most part are non-existent or primitive. The few persons with modern facilities do not often use them properly, e.g. cleaning with mud after defecation while using a flush toilet.
7. Beliefs and practices are somewhat inconsistent as well. Sickness, for example, is ascribed to God but the majority go to a medical rather than a religious source for treatment.
8. Attitudes to self-help, co-operation and contribution are for the most part negative, but with some noticeable individual exceptions, especially where need is the greatest, and in Phagla village where a very positive attitude prevails in this respect. This might be attributable to the Government/UNICEF Community Participation Programme.
9. Generally, with a few exceptions only, villages are poor and backward, kucha construction houses, few over-crowded rooms, poor ventilation.
10. Family incomes are low - under Rs.500/- and women make very little contribution to family resources. Income to some extent affects facilities owned.
1. Education levels are also low. Most people have had no education and this affected knowledge level and income to some extent.
2. Persons earning between Rs.500-1,000 are the most innovative and knowledgeable in most cases, but generally people are traditional and unadventurous in instituting changes.
3. Community-owned or accessible resources and resource persons are few - e.g. someone definite who cleans excreta, or who maintains the water source; basic health centres or units are also apparently scarce.

4. The study had pinpointed many further areas of further investigation and research. Investigation here refers to activities such as finding who pays for water, to whom and why, or discovering how the few persons with piped water in a village, where only two persons have it for example, managed to procure it.

Research refers to investigating more specific, detailed and scientific phenomena: e.g. ascertaining the main adult and childhood diseases or illnesses and comparing/contrasting them or finding out if and which fevers, eye and skin diseases prevalent in the area are water related.

Given these findings, recommendations made throughout the study can be summed up under the following four categories:

- (a) Physical construction - repairs, extensions, improvements.
- (b) Educational, informational and motivational activities, materials and strategies.
- (c) Resource investigations and suggestions - resource investigation and resource building.
- (d) Further research.

In summary the primary recommendations in each of these categories are as follows:

- (a) Physical Construction: Community-owned and community accessible type constructions are recommended where possible and acceptable to the villagers in view of the limited financial and material resources of the communities.

The feasibility of introducing or extending the more modern facilities (such as piped water, for example) should be thoroughly investigated. It might be wiser and more economical to introduce this now if possible rather than waiting and duplicating expenditure since expectations of villagers are bound to rise with new programmes, exposure and knowledge. If this is not possible, then proper construction, repair and maintenance of the simple, existing technologies must be undertaken.

Further, the highly recommended technologies of water engineering repertoire should not be introduced to the exclusion of other alternative models which are cheaper or more suited to prevailing conditions in this area, especially where there is some degree of acceptability of, say, the pit rather than hand flush latrine. This is especially important since construction materials seem to be either expensive, in short supply or not easily available.

Substantial financial and material assistance seem necessary for most of the projects which might be recommended, in view of limited resources, in which case constructions involving these materials might be outside the financial scope of many persons.

Construction should parallel as closely as possible existing house conditions - it will be difficult to first persuade someone to build a pucca soakage pit, even more so when his house is kutch and his earnings very low.

- (b) Motivation will most definitely require face to face interaction and will therefore involve training of volunteer community workers in communication techniques and strategies.

Villagers need definitely and primarily to be encouraged to observe carefully and enquire into their surroundings and the cause of their problems. Community co-operation must be emphasized, as also the need for the individual to contribute to his own development and accept responsibility for his environment and community.

→ Simple information material is needed on all aspects of technical construction and behaviour change, e.g. latrines and their functioning, or using water rather than mud, as also explanation of diseases, causes, vectors, etc., colourfully illustrated. Simple cassette tapes and tape recorders might also be useful, as also radio messages and jingles.

Influential and familiar local leaders and personalities should be incorporated into the programme to lend credibility and to strengthen motivation.

Initially but not exclusively strategies should be aimed at the "innovators" in the Rs.500-1,000 bracket as they seem to be the most adventurous and receptive to new ideas and will be good examples and motivators. Where good practices are followed, or knowledge levels are high, communities should be commended and competitiveness encouraged on a mild scale.

practical suggestion

- (c) Cadres of Sanitation Workers should be formed and investigation undertaken to ascertain existing persons involved in these aspects.

Doctors, MCH staff, etc., and their related programmes and materials should be investigated, and coordination established.

Attitudes of landlords and wealthy persons should be investigated and these persons encouraged to act as contributors, procurers, transporters, etc., of construction material, for example.

Prices, location, sources, transportation and availability of construction materials and all other sanitation related resources, e.g. fuels, cleaning agents, etc., should be investigated.

- (d) Further research is needed in several areas such as disease prevalence, types of disease, water quality, source population and so on.

Finally, regular replication of the present study should enable the community, promoters, Water staff and other interested parties to keep updated on changes in knowledge, attitudes and practices of each village separately and in general as well as to monitor changes or improvements in the infrastructure and resources related to water and sanitation.

THE RESEARCH SITE

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

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

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

LIMITATIONS

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

METHODOLOGY

The Research Site

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

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

[252]

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

Sources and Types of Data

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

The type of data required were information on:

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

Sampling Techniques

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

Data Gathering Techniques

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

Variable

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

Data Processing

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

Time Frame

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

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

WATER

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

Fill in each category as applicable

*(Mark all applicable: reasons/problems)

1. Indicate your most preferred/used water source of the above [A = most preferred]
 - A. _____
 - B. _____
 - C. _____
2. If water is not available inside the house, who brings water to the house?
 1. _____
 2. _____
 3. _____
 4. _____
3. What is the cost of equipment for carrying and collecting water?

Container : Type	Cost	Where available
Rope : Type	Cost	Where available
4. If this equipment is not yours, how do you get to use it?
 1. Borrow.....
 2. Community ownership.....
 3. Rent.....
 4. Don't use.....
5. Who maintains the water sources you indicated you used?

SOURCE

1.	A. You Yourself.....	B. Community.....	C. Owner.....	D. Other (Who)
2.	A. You Yourself.....	B. Community.....	C. Owner.....	D. Other (Who)
3.	A. You Yourself.....	B. Community.....	C. Owner.....	D. Other (Who)

7. How is the source maintained/What is ~~the~~ ~~person~~ responsible for? (Mark whichever applicable) 1. Keeping it clean..... 2) Keeping animals away.....
3) Repairs & Maintenance..... 4) Other.....
8. Which of your water sources mentioned above do you pay for? (Mark where applicable)
1..... 2..... 3.....
9. How much do you pay for each source each month? (N.A. = Not applicable)
1.a)..... b) N.A..... 2. 3-6 mths..... 3. Full year.....
10. If you buy water, for how many months in one year do you buy?
1. Less than 3 mths..... 2. 3-6 mths..... 3. Full year.....
11. How do you store water at home (Mark whichever applicable)
1. Clay pots..... 2. Cement Water tank..... 3. Other container (Specify).....
4. No Storage facility.... 5. Tins/Drums.... 6. Skins.... 7. Metal water tank....
12. What do you think about your drinking water?
1. Yes 2. No. 3. Don't know
i. Tastes good
ii. Is safe and good for health
13. If you think your water is bad, why do you think so? (Mark where applicable)
1. Causes sickness.... 2. Is dirty.... 3. Other (specify)
14. Which sickness does bad water cause?
1..... 2..... 3..... 4.....
15. How do you make bad water good: (fill in as many as are applicable)
1..... 2..... 3..... 4. (Don't know
16. Why do you use this method of making bad water good?.....
17. Do you have any idea of what else could be done to provide safe drinking water (Mark the 2 most preferred) 1. Water tap..... 2. Hand pump.....
3. Covered wells..... 4. Separate water source for people and animals.....
5. Boiling..... 6. Other (specify)..... 7. Don't know.....
18. Would you prefer your own or a community water source (Mark one only)
1.Community..... 2. Own..... 3. Either.... 4. Both.... 5. Don't know
19. If this water source was safe and good, would you be willing to pay for it, even if your present source is free or cheaper?
1. Yes..... 2. No..... 3. Don't know.....
20. Would you help build and maintain this source? (Mark all applicable)
1. By labour... 2. By cash... 3. In kind... 4. Nothing... 5. Don't know...

HEALTH & SANITATION

1. How many of your family members got sick last year?
1) one.... 2) Two.... 3) Three.... 4) More than three..... 5) None....
2. How many of the sick children were under 5 years old?
1) One.... 2) Two.... 3) Three 4) More than three.... 5) None....
3. What was the problem?
1) Eye diseases... 2) Stomach pain... 3) Diarrhoea... 4) Worms...
5) Skin disease... 6) Malaria... 7) T.B.... 8) Throat Trouble...
9) Cold... 10) Fever... 11) Cholera ... 12) Cough...
13) Typhoid... 14) Other... (Specify)
4. In your view, what was the cause of this health problem?
1) Bad weather... 2) By GOD... 3) Bad water... 4) Bad food...
5) Witchcraft... 6) Other... 7) Don't know...

1
2
3
4

1
2
3
4

6. How are these diseases spread ~~from excreta~~ to people (Mark for i-v)?
- | | | | |
|------------------------|--------|-------|---------------|
| i) By flies | 1. YES | 2. NO | 3. Don't know |
| ii) By dirty hands | 1. YES | 2. NO | 3. Don't know |
| iii) Contaminated food | 1. YES | 2. NO | 3. Don't know |
| iv) Dirty water | 1. YES | 2. NO | 3. Don't know |
| v) Other (Specify) | 1. YES | 2. NO | 3. Don't know |
7. What system do you use to dispose of excreta [mark one for i-vi]?
- | | | | |
|----------------------------|--------------|------------------|----------|
| i) Pit latrine | 1. Sometimes | 2. All the times | 3. Never |
| ii) Dry latrine | 1. Sometimes | 2. All the times | 3. Never |
| iii) Flush toilet | 1. Sometimes | 2. All the times | 3. Never |
| iv) Corner of the Compound | 1. Sometimes | 2. All the times | 3. Never |
| v) In the field | 1. Sometimes | 2. All the times | 3. Never |
| vi) Other (Specify) | 1. Sometimes | 2. All the times | 3. Never |
8. Which two of the above methods you use, do you prefer most and why? [Reason]
- 1.----- 1) Like it. 2) Clean 3) Cheap 4) Easy 5) Dry
 6) No alternative 7) Don't know
 8) No disposal necessary 9) Other
- 2.----- 1) 2) ETC 3) 4) 5)
 6) 7)
 8) 9)
9. Which two methods do you like least and why?
1.
 2.
10. If you use the field do you cover excreta with earth, leaves, etc after defecation?
1. YES 2. NO
11. Does the family use human excreta for manure in the field?
- i. 1) YES 2) NO 3) Don't know
- ii. Do they mix human excreta with other refuse.
 1) YES 2) NO 3) Don't know
- iii. What is this mixture used for? _____
- iv. If this is not done, why is human excreta and other refuse not mixed.
12. If you use the house or near the house for defecation who cleans the excreta away?
13. Do you pay this person and how much per month?
- i. 1) YES 2) NO
- ii. Payment _____
14. Where do these persons go for excreta disposal?
- | | | | |
|----------------|----|----|----|
| i) Men: | 1] | 2] | 3] |
| ii) Women: | 1] | 2] | 3] |
| iii) Children: | 1] | 2] | 3] |
15. If there is a latrine in your house, who uses it?
- 1] Women only 2] Women and children only 3] All
 4] Not used
16. i) If you have latrine and don't use it.
 ii) If you don't have a latrine, why not? (mark all applicable)
- | | | |
|-----------------------|--------------------|-----------------------------------|
| 1) Don't like | 2) Bad smell | 3) Don't know how to use properly |
| 4) No one to clean it | 5) Other (specify) | |
- [ONLY FOR ii] 6) Can't afford



1
2
3
4
5

17. If you have no latrine, do you know what it is and how to use it properly?
 i. 1. YES 2. NO
 ii. Explain _____
18. If you have no latrine, would be interested in having one in your house or compound?
 1. YES 2. NO 3. Don't know
19. If someone showed you how to build a latrine, how much would you be willing to spend building it?
20. Would your husband be willing to have it built or help to build it?
 1] YES 2] NO 3] Don't know
21. Are there any latrines in your village? What do you think of them?
 i. 1. YES 2. NO
 ii. Opinion _____
22. You need a little water every time you use a latrine. This means getting a little extra water. Would you be able and willing to get more water for this purpose?
 1] YES 2] NO 3] Don't know

ANIMAL EXCRETA & REFUSE DISPOSAL

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

FUELS

1. What do you use for fuels?
 1. 2. 3. 4.
2. Is there enough fuel?
 1] All the time 2] Never 3] Often
 4] Most times no
3. Do you feel you need more fuel and what kind (Put N.A. under 'type' if answer is NO)
 i. 1. NO 2. YES
 ii. Type _____

10

4. What do you use for lighting?

1. _____ 2. _____ 3. _____ 4. _____

5. What is the cost for fuel and lighting monthly?

1. Fuel _____ 2. Lighting _____

FAMILY DATA

1. Name of Interviewee: _____

2. Sex of Interviewee: 1. Male _____ Female _____

3. Relationship with family head: 1. Family head _____ 2. Wife _____

3. Mother _____ 4. Son _____ 5. Daughter _____

6. In-law _____ 7. Other _____

4. Occupation of family head:

i) _____

ii) What is the income of the family per month?

iii) How much do you earn per month if you have any income-generating activity?

5. Number of family members:

i) Male: 0-5 years _____ 2. 6-10 _____ 3. 11-15 _____ 4. 16+ _____

ii) Female 0-5 years _____ 2. 6-10 _____ 3. 11-15 _____ 4. 16+ _____

iii) Total: 0-5 years _____ 2. 6-16 _____ 3. 16+ _____

6. Have you attended school:

1) None at all _____

2) Level 0-6 _____ 3) above level _____ 4) _____

7. Do you or your husband belong to any village committee or hold any important position in the village:

i. husband of interviewer: 1) None 2) _____ 3) _____ 4) _____

ii. Interviewer 1) None 2) _____ 3) _____ 4) _____

HOUSE

1. Type of dwelling (to be determined by the interviewer):

1) Pucca _____ 2) Semipucca _____ 3) Kuchha _____ 4) Tent _____

5) Hutment _____ 6) Other _____

2. Other facilities: (mark all applicable)

1) Electricity _____ 2) Gas _____ 3) Water _____ 4) Separate kitchen _____

5) Separate Bathroom _____

3. Structure of the House: (mark all applicable)

1) Mud _____ 2) Bricks _____ 3) Stones _____ 4) Cement _____ 5) Bricks, Mud _____

6) Cement roof _____ 7) Pucca floor _____ 8) Windows _____ 9) Ventilators _____

10) Doors _____

4. Number of outlets in house, i.e. windows doors, etc:

a) one only _____ b) _____ c) _____

2
1
5
4
A