

# Identifying Key Risk Practices for Hygiene and Sanitation: Recommendations for Future Malnutrition Assessments

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## OBJECTIVES OF THE REPORT

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To give operational recommendations on developing rapid assessment of key risks practices in Mugu and Humla areas (Nepal)

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## LIST OF ABBREVIATIONS

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DHO	District Health Officer
DWSS	Department of Water Supply and Sewerage
FGD	Focus Group Discussions
GoN	Government of Nepal
HH	Household
KAP	Knowledge Attitudes and Practices (Survey)
MoH	Ministry of Health
ORS	Oral Rehydration Salts
OVI	Objectively Verifiable Indicators
PRA	Participatory Rural Appraisal
WQ	Water Quality

## 1 INTRODUCTION

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As the KAP Survey and subsequent research in Mugu and Humla has identified, there are a wide range of issues regarding public and environmental health, and hygiene practices, and that pinpointing the causes of diseases, or malnutrition, without sufficient epidemiological data, is unavoidably subjective.

This report draws on experience from the Sanitation and Hygiene project in Mugu/Humla, the KAP Survey, and from research by other organisations in other areas of Nepal (UNICEF 1996), and overseas (Curtis *et al* 2000). The purpose is to aid the rapid assessment of key risk practices that may contribute to diarrhoea and intestinal worms; understood by the author to be the main WASH related causes of under-5 child malnutrition.

This initial rapid assessment could be complimented by a secondary, more in-depth survey to aid understanding of the community context, and advise the modality of future interventions.

It is recommended to collect a diverse range of information, to build-up the datasets available for analysis of the cause-effects of WASH diseases, to target interventions, and to obtain baseline data for ongoing monitoring of the intervention's impact.

## 2 INITIAL DATA COLLECTION

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To avoid subjective assessment of the key risk priorities in communities by field workers, objective and systematic datasets should be collected wherever possible, which would compliment and add value to findings from interviews or surveys.

The following data could be collected prior to the community assessments:

### 2.1 Bibliographic Review & Coordination

Epidemiological assessments of the influence of WASH parameters on diarrhoeal incidence have been undertaken in various districts in Nepal. This information could be capitalised on, through a bibliographic review, and by seeking advice of organisations experienced in such research in Nepal, such as UNICEF (see section 7 for contact details).

### 2.2 Health Data Collection

Epidemiological datasets could be collected at the national and regional level (MoH, Bureaux of Statistics), and from district health officers (DHOs), and if feasible, local health posts. This would include data on diarrhoea (with/without blood), intestinal worms, and malnutrition.

If possible, data should be collected that shows disease incidence by demographic group (gender, age), by caste, showing trends through time, spatial variance, and seasonal variance of disease incidence (such as diarrhoeal incidence 'spikes' during rainy seasons, or when temperatures are optimal for bacteria multiplication on food.....).

District health officers and health post staff could also be interviewed for their insights into the environmental health risks of the area.

### **2.3 Water Quality Data**

The Ministry of Health (MoH), Department of Water Supply and Sewerage (DWSS), or local sub-offices of the DWSS may have undertaken previous research of the water quality (WQ) of various water source types, and even household (HH) water quality in the area, which may be useful in assessments, particularly looking at seasonal variability.

## **3 COMMUNITY ACTIVITIES**

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Along with answers from community surveys and health data; water quality testing and sanitary surveys in the communities/HHs could help identify key risk practices, in addition to providing baseline conditions, upon which Objectively Verifiable Indicators (OVIs) could be compared to, for follow-up and monitoring project impact. HH sanitary surveys and water quality sampling should be undertaken at the same HHs that are selected for interviews.

### **3.1 Water Quality Testing**

Surveys could be complimented with WQ testing (particularly microbiological testing), at the water source, distribution point (if applicable) and at the point of consumption (from the HH jars). This would help to identify if hygiene practices are leading to significant deterioration of water quality.

WQ testing could be undertaken periodically, to show seasonal variance, and sampling would ideally include representative dry-period and post rainfall conditions.

For the case of Mugu and Humla; water quality testing may be possible, but would be logistically, and technically challenging. If it was found to be unrealistic, sanitary surveys could be used as a substitute.

## **3.2 Sanitary Surveys**

Sanitary surveys allow standardised, moderately objective assessments of the community and HH environmental health risks, add value to WQ and interview datasets, and can be used as baseline conditions for OVIs.

These sanitary surveys should be designed to be as objective as possible, providing the field worker with benchmark criteria for levels of risk or sanitary situations, and should try to identify potential risks at different times of the year.

These surveys would need to be adapted for relevance to the context; where practices, risks, water sources and livelihoods may vary spatially.

These surveys could be undertaken at the community level, at interviewee HHs, and water sources used for human consumption.

### **3.2.1 WATER SOURCE**

Standard water source sanitary surveys can be applied (relevant to source type). As community members are likely to be anal washers (to be validated by interviews), they may defecate near water sources for convenient anal cleansing. Therefore particular focus should be on the prevalence and risk of human excreta surrounding the source, and potential for contamination if 'washing' at the source.

### **3.2.2 COMMUNITY**

These could be undertaken through structured observation and community walks. Common areas of open defecation should be identified and evaluated for risk, and the environmental sanitation status assessed (excreta prevalence, vectors, livestock practices, solid waste management, drainage.....).

### **3.2.3 HOUSEHOLD**

Again, standard surveys could be used, but tailored to the context. Of particular interest could be the prevalence of excreta around the house, the sanitary conditions/usage of the latrine (if applicable) and vectors, environmental sanitation conditions, along with assessment of food/water storage, stove ventilation.....

### 3.3 Community Interviews

Initial, quantitative data could be collected from the community (HHs and key informants), for a rapid assessment of practices that may pose risks of malnutrition, and for the baseline for OVIs. This could be followed by subsequent qualitative investigations to develop the understanding of the context, and inform intervention strategies.

## 4 IDENTIFICATION OF KEY RISK PRACTICES IN COMMUNITY SURVEYS

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### 4.1 Methodology

This survey may stand alone as a WASH investigation (such as a modified KAP Survey), or with the following key topics integrated into a multidisciplinary questionnaire.

It is suggested that the data to be collected should be quantitative, and the sample group would ideally represent at least 50% females, as they are likely to be responsible and aware of the water, hygiene and sanitation conditions and issues of the HH.

The sample groups could be segregated to HHs with/without incidence of malnutrition, to allow case-control cross analysis, to see if there are any trends between the two groups.

### 4.2 Topics to be Covered

The key risk practices to be identified are likely to vary spatially. Therefore initial piloting of questions should be undertaken to ensure relevance of the topics covered to the context, and to highlight other potential risks not included in this report.

The following topics focus on potential causes of diarrhoea and intestinal worms, with a limited focus on potential causes of water-washed diseases such as skin infections.

Topics that may be useful to cover are grouped, and bullet pointed below;

#### 4.2.1 WATER SOURCES, COLLECTION, STORAGE, TREATMENT AND USAGE

- **Water source selection** (for human consumption). Where do they collect water if the normal source fails? Undertake WQ testing and sanitary surveys at all sources for human consumption. Identify if lower castes are prevented from using improved sources.
- **Water collection, transport, storage and taking water from storage.** This could be bypassed if pushed for space in the initial survey, as the domestic WQ sampling and HH sanitary surveys would identify if there is source to consumption contamination that could be investigated later.
- **Water treatment prior to consumption.** At all times? With all sources? Children/babies always given treated water?

- **Water consumption per day.** Ask relative to number of common containers, not number of litres (for accurate interviewee estimates). Consumption at times of water shortages?
- **Water usage.** Approximate proportions of water collected for various purposes. Does usage change with water shortage? In Mugu it was found that during drought, 3 HHs interviewed stated they would not allow water use for handwashing.

#### 4.2.2 DEFECATION PRACTICES, EXCRETA DISPOSAL AND ANAL CLEANSING

- **Locations chosen for defecation.** This should be segregated between age groups, genders, day/night time, and seasonal variance. The answers could be cross-checked with sanitary surveys.
- **Use of shoes/slippers whilst defecating.** Importance for soil-based helminths.
- **Latrine ownership and usage.** If the HH owns one, who uses it, under what circumstances (at night, sickness..)? Check usage and condition of the latrine in the HH sanitary survey.
- **Method and location of anal cleansing.** Washers or wipers? If washers – *where* do they wash (come back to the house, wash at water source..)? Using what water containers (key risk if using drinking water/handwashing jug)? How/where do the babies/young children wash?
- **Child and sickness stool disposal.** Methods (and containers if applicable) of collection, locations of disposal. Perceptions of whether child/sickness excreta are hazardous to health -worse than adult excreta?

#### 4.2.3 HANDWASHING

- **Timing of handwashing.** Handwashing after defecation? Before child feeding? After anal cleansing child or child stool disposal? After handling livestock excreta? Other times?
- **Child handwashing.** Does someone wash the child's hands/ensure the child washes its hands at key times?
- **Usage of soap/washing agents.** All family members use? Sometimes/always/never?
- **Location of handwashing.** Wash back at the house? Special handwashing facility or use household jug?

#### 4.2.4 PERSONAL WASHING (CLOTHES AND BODY WASHING)

Potentially of lower interest for diarrhoea and worms, but good for water-washed diseases, so if space for WASH questions is constrained for the initial assessment, this topic could be covered by the secondary investigation.

- **Child clothes washing.** Are the child's clothes cleaned each time they are soiled with excreta?

#### 4.2.5 ENVIRONMENTAL SANITATION

This topic could be largely covered in both the community and HH sanitary surveys, looking at domestic grey water, refuse, and livestock excreta management practices, stove ventilation, and vector breeding area and prevalence. Details could be collected in the secondary investigation.

#### 4.2.6 FOOD HYGIENE

Again, this could be largely covered by HH sanitary surveys, looking at state of cooking pots, food storage/covering...

- **Washing vegetables/fruit before consumption.** Using 'clean' water? During water shortages?
- **Baby feeding.** Hygienic practices if feeding with a bottle? Other risks on this topic – needs field investigation of local practices.

#### 4.2.7 DISEASE INCIDENCE AND RESPONSE

- **Recent diarrhoeal incidence.** Which family member? Stool contained blood?
- **Response to child diarrhoea incidence.** Visit FCHV/health post, treat at home, visit traditional healer..? How severe/length of time the child had diarrhoea before taking action?
- **Treatment of child diarrhoea.** Use of ORS? Given more/less fluids (treated/untreated water)? Given more/less food? Note – UNICEF (1996) found a difference between knowledge of what carers *should do*, and *actually do* in response to diarrhoeal incidence.
- **Common duration/severity of child diarrhoeal incidence.**
- **Access to healthcare.** What health services are available and accessible? Do they use them? For what?
- **Incidence of other diseases.** What other health problems do they/ their children suffer from? What are the seasonal differences? Incidences of Malnutrition? Worms?

## 5 FURTHER INVESTIGATION FOR UNDERSTANDING CONTEXT AND TO ADVISE INTERVENTIONS

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Once initial assessments of key issues have been undertaken, further investigations can provide more detailed information to increase the understanding of the context, and develop effective implementation strategies.

This secondary investigation can inquire about *why* practices are as they are, and how realistic they are to change. A focus could be placed on community; needs, priorities, aspirations and barriers to improved practices; issues with current practices; groups which are responsible for various activities (particularly child-care); perceptions and understanding of disease; community organisation and dynamics, local services.....

These could be undertaken by more qualitative community and key informant interviews and Focus Group Discussions (FGDs), and Participatory Rural Appraisal (PRA) tools could be used to maximise community involvement and allow rapid collection of information. Local institutions such as schools and health posts could also be visited.

The following broad topics could be investigated, which are derived from the sanitation and hygiene research project in Mugu and Humla. The full list of questions asked in this research is included in Appendix 8.1.

- Interviewees priorities and perceptions of environmental hygiene and sanitation issues
- Current defecation habits
- Previous experiences, and future aspirations for latrines
- Latrine location issues
- Environmental sanitation and household management
- Personal, hand and clothes washing
- Child hygiene and child hygiene promotion (including responsibilities within the family and the role of the school)
- Community organization, leadership, and appropriate approaches for sanitation and hygiene improvements.

## 6 POTENTIAL PRIORITIES FOR INTERVENTIONS

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Whilst priorities for WASH interventions to reduce the incidence of diarrhea and intestinal worms are likely to be context dependent, the following issues may be potentially most significant;

- **Excreta Disposal.** This includes child and sickness stool defecation, and is likely to be a higher risk with open defecation/stool disposal inside the villages or around water

sources. In the case of Mugu and Humla, open defecation outside the village, away from potable water sources are likely to be a relatively lower priority for environmental health, apart from soil-transmitted helminths and defecating on sources of food.

- **Handwashing at Key Times.** Also where they wash them, and whether they use multipurpose household jugs for this (and for anal cleansing) for this purpose. Whether the mother washes hands after child anal washing or stool disposal, or before child feeding.
- **Response to Diarrhoeal Incidence.** This will affect the chances of survival, and severity/duration of diarrhea, which would influence malnutrition (UNICEF 1996).

In terms of interventions; depending on local conditions, safe excreta disposal, coupled with hand washing after defecation, stool disposal and child washing, and education about diarrhea treatment, may lead to the greatest impact on WASH related malnutrition.

## 7 RECOMMENDED READING AND CONTACTS

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UNICEF Contact: Larry Robertson, Head of UNICEF NP WatSan programme. Tel: 015524991

Curtis, V. et al (2000). Domestic hygiene and diarrhea: Pinpointing the problem. Tropical Medicine and International Health, volume 5 no 1 pp 22–32. Accessed at [hygienecentral.org](http://hygienecentral.org).

UNICEF & GoN (1996) Diarrhoea, water and sanitation. Nepal Multiple Indicator Surveillance. Accessed at: [http://www.npc.gov.np/unicef/nmis/3rd\\_cycle/executive\\_summary.htm#Table%201](http://www.npc.gov.np/unicef/nmis/3rd_cycle/executive_summary.htm#Table%201)

Pokhrel, D & Virarghavan, T. (2004). Diarrhoeal diseases in Nepal *vis-a`-vis* water supply and sanitation status. Journal of Water and Health, 02.2

## 8 APPENDIX

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### 8.1 Questions Asked in the Hygiene and Sanitation Approaches Research, Mugu and Humla Districts

Village ..... VDC ..... District ..... Date  
.....

**Stats:** Age..... Sex.....Caste..... Vulnerable Group? .....  
Location of house ..... Size/Structure of Family: Total..... , <5... , 5-  
teen..... , Teen....., Adult.....

#### Environmental Hygiene/Sanitation Situation (Open ended/broad to gauge perceptions and priorities)

- Major perceived issues in the village relating to hygiene and sanitation? Order of importance/priority?
- What can be done about them?

#### Defecation Practices

- Where do you/your child defecate (variability seasonally/time availability/sickness/night)
- What do you use for anal cleansing? If water – where collect, where are water sources in village? How transport etc.
- What are the problems with your/child defecation practices/locations?
- What do they do with child faeces? Where/do children learn where to defecate, anal cleansing - 0-18,18-24, >24months

#### Latrines

*Have you ever built a latrine? If yes;*

- Did they use it? Design? How long? Why? Why stop (if applicable)?
- Any problems with it?
- Where was it located? Why? Issues with location? Shared?

*Plan to build another latrine (replacement of temporary, one of ACF planned intervention areas)*

- Plan/aspire to (demand)? Barriers?
- Where *locate* it? How acquire land? Financial methods/practicalities/timescales/barriers? Perceptions of location within the house/balcony/cowshed- women/animals space? Realistically enough space – for 1/2 pits? Put pits under paths?
- How close need to be to be *used* at night and by the children/elderly/dispose child/sickness faeces? Achievable?
- Perceptions of sharing latrine/latrine block for cost reductions? Who possible to share with?
- What to do when it is full? Nightsoil collection/disposal methods/realities-whose responsibility? Space available to switch pits? Perceptions of Ecosan? – Demand for high grade/additional compost, willingness for upkeep/bulking agents available through year/moisture control?

- Cultural/spiritual beliefs about faeces?
- What kind of design? External materials – how feel they could *sustain*? Where can they access them – logistics/costs..
- How can they finance all this? – Land acquisition and materials/labour/construction/porterage?
- Contributions and subsidies – realities of graduated subsidy?
- When would they construct it? Barriers to construction?
- Are there the skills within the community to construct it?
- Who would be responsible for cleaning it? How ensure it remains clean? What use to clean it?
- What do for anal cleansing in the latrine? What if water not available/bucket lost/broken – use of solid wiping material?
- How ensure latrines were being *used*? Usage by the adults instead of going to the jungle? Individual or community?
- What would they do when away from latrines/seasonal migration – replicability?
- What can be done about child/sick/elderly/night defecation? Potties?

### **Village Cleanliness**

- What do/could they do with their domestic/ food processing refuse? What type of refuse/volume variability /year?
- What is done with rooftop drainage/grey water? – Issues? Roof – space to drain away from street? Space for soak away?
- Where are the animals kept through the year? Why? Length of time in village – length of time shit in street?
- What is done with their faeces? Clean up or left there? Composting?
- Any issues regarding animal waste/composting practices (erosion/health/cleanliness)?
- What could be done about this? How could the village be cleaner?
- Perceptions of keeping animals/processing compost outside village/communal area?
- Perceptions of bunding/isolating compost – design ideas to address issues mentioned? – space/resources available?

### **Personal Hygiene**

#### *Personal washing*

- Are there any issues with your/family personal hygiene in the village? Health problems associated to these? Causes?
- How frequently do they/family wash themselves? Seasonal variation? Why?
- Issues of washing where/the way they do? Are they/family as clean as they want to be?
- What use? Use/see benefits of soap? Access/costs?

#### *Handwashing*

- (When) do they/family wash their hands? Restrictions? Why do they wash them? – Perceived benefits?
- What do they use to wash them – Different materials at key times? – Perceptions of using ash?

- Where do they wash them (facilities) – using what?

#### *Clothes washing*

- How often do they wash their/families clothes? – Why? Annual variability? Who is responsible for clothes washing?
- What do they use for washing?

#### **Schools/Child Hygiene**

- How do they/their children learn about hygiene/sanitation practices? Gender? How to wash themselves/clothes?
- How/do they teach the child to use the latrine?
- Rites/coming of age and significance of stopping looking after child? Different for boys/girls?
- Who washes the children's hands/teaches? When do they wash/with what? Where?
- Who is responsible for the children's hygiene/sanitation/bathing upkeep/supervision – seasonal variation?
- Who looks after the kids when the parents are absent?
- Do they/their children go to school? – What prevents them?
- What facilities exist at school for hygiene/sanitation? – Do they use them?
- Do they learn about hygiene/sanitation in lessons? Interested? Fun? Memorable? Recommendations?

#### **Village or community approach/CBOs**

- What do they think would be/is the most powerful medium of change in the village? Who respected?
- Any CBOs/ever created in village?
- Would people listen more to an NGO/external (e.g. KIRDAC) representative or member of own community?
- Would an approach based on community monitoring, vigilance and shame be effective?
- What do people learn best/enjoy most/participate most in; visual aids, community exercises, lessons, drama, songs?

## 8.2 KAP Survey Questionnaire (ACF 2007)

### 8.2.1 GENERAL INFORMATION

District:  Mugu  Humla VDC: \_\_\_\_\_  
 Community/village: GPS: \_\_\_\_\_ X= \_\_\_\_\_ Y= \_\_\_\_\_  
 Population (cross-check with F.sec): \_\_\_\_\_  
 Household: \_\_\_\_\_

#### Interviewee

Caste group: \_\_\_\_\_ ☺ Gender:  female  male  
 Age: \_\_\_\_\_  
 School level:  never gone  just literate  primary (<+5)  low secondary (<+7)  secondary (< +10)  
 Number of children: \_\_\_\_\_ Number of persons in the household: \_\_\_\_\_

### 8.2.2 WATER SUPPLY

#### • Water sources

☺ ►► 1-Where do you collect your water?

	Tap stand (spring catchment)	Tap stand (stream catchment)	Tap stand (irrigation channel)	Spring without intake	Spring with unprotected intake	Spring with protected intake	Stream	River	Irrigation channel	Mill channel
<b>Dry season</b>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>Rainy season</b>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

2-Time from the house to go and come back from the water point? (Minutes)

Dry season: \_\_\_\_\_ Rainy season: \_\_\_\_\_

3-Average waiting time at the water point to get water? (Minutes)

Dry season: \_\_\_\_\_ Rainy season: \_\_\_\_\_

☺ 4-State of the water point?

Dry season:  clean  dirty  very dirty Rainy season:  clean  dirty  very dirty

5-Where the cattle are getting water?

Dry season:  same water point  around  irrigation channel  other

Rainy season:  same water point  around  irrigation channel  other

#### • Transportation of drinking water

►► 6-Who carry water to house?

mother  father  boys  girls  grand-parents

☺ 7-Is there a special transport container?  no  yes

☺ Number & volume (liters) of transport containers by day?

8-Number: \_\_\_\_\_ metal pot \_\_\_\_\_ plastic jerry can \_\_\_\_\_ others

9-Volume: \_\_\_\_\_ metal pot \_\_\_\_\_ plastic jerry can \_\_\_\_\_ others

10-Do you wash the container and how often?  never  daily  weekly  
 monthly

11-How do you wash the container?  water only  soap and water  
 ash and water  mud and water  manures and water  
 other

• **Storage of drinking water**

☺ 12-Is there a special storage container for drinking water?  no  one  two  more than two

☺ 13-Type of storage container?  metal pot  plastic jerry can  
 others

14-Do you wash the container and how often?  never  daily  weekly  
 monthly

15-If you did it, with what do you wash it?  water only  soap and water  
 ash and water  mud and water  manure and water  other

☺ 16-Is the water container clean?  no  yes  
☺ 17-Is the water container smelling?  no  yes (milk, oil, \_\_\_\_\_)  
☺ 18-Is the water container covered?  no  yes  
☺ 19-Where is the water container?  on the ground  on the seed's cupboard  
 others

▶▶20-Do you use any treatment before drinking water?  
 no  boiling  filtering  waiting time for decantation  
(Minutes)\_\_\_\_\_

☺ 21-How do you take water from the container?  
 cup with handle  cup without handle  hand inside  pour from the container into the cup

**8.2.3 HYGIENE & SANITATION**

▶▶22-Where do you defecate?  
 near the house  in the fields/forest  river side  irrigation channel  private latrine  
 neighbours latrine

▶▶Where your family defecate?  
23-Adults:  near the house  in the fields  river side  irrigation channel  private latrine  
 neighbours latrine

24-Children:  near the house  in the fields  river side  irrigation channel  private latrine  
 neighbours latrine

☺ ▶▶25-What is the global status of the latrine?  
 clean pan  dirty pan  pit full  pit collapsed  cover on pan

Do you use water to go to defecate?

26-For what?  to flush  for anal cleansing  
27-With what?  pot dedicated to latrine  kitchen pot

28-Who is in charge of latrines maintenance / cleanliness?  mother  father  children

▶▶29-Did you ever have a latrine and why did you stop using it?

pit was full       damaged       no habit to use       forced to built

▶▶30-Do you have any problem to share the latrine with your neighbours?

no       intimacy       cast       cleaning problem       not my family  
 other

▶▶31-When do you wash your hands?

before cooking       after cooking       before eating  
 after eating  
 after defecate       after cleaning a child       after touching animals  
 after working

▶▶32-What do you use to wash your hands?

don't wash       water only       soap + water       ash + water       other\_\_\_\_\_

33-Why don't you use soap to wash your hands?

not available       too expensive       no habit

34-Why do you wash your hands after defecating?

smell       prevent disease       habit  
 other\_\_\_\_\_

35-How often do you take shower?

	summer			winter		
	never, why	weekly	monthly	never, why	weekly	monthly
mother	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
father	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
children	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

36-Who is in charge of children's hygiene?

mother       father       grand-mother  
 grand-father

37-How often do you wash the clothes?

	summer				winter			
	never, why	weekly	monthly	less often	never, why	weekly	monthly	less often
adults	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
children	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

#### 8.2.4 HOUSEHOLD MANAGEMENT

☺ ▶▶How does the family manage the refuse?

38-Animal refuse:       community dumping       pits       compost  
 anywhere

39-Vegetal refuse:       community dumping       pits       compost  
 anywhere

40-Inorganic:       community dumping       pits       burning       anywhere

☺ 41-How does the family manage waste water?

Kitchen garden       emptied near the house       drained anywhere

☺ ▶▶42-How is the environment around the house?

clean livestock nearby       stagnant water       lot of flies       garbage       animal stools     

☺ 43-Where is the cowshed?

house's ground-floor       separated cowshed       no shelter

44-How do you clean the cooking pots?

water       water & soap       water & ash       water & manure  
 water & straw

☺ 45-Where do you store your cooking pots?

cupboard       on the ground       on the seeds cupboard        
wall's shelves

☺ 46-Is the cooked food covered?  
cover

not covered       clean cover       dirty

☺ 47-Is the fresh food covered?

not covered       clean cover       dirty cover

48-Are the fresh vegetables washed with water?

always       never       sometimes

☺ 49-Do you have an improved stove?

no       yes with a smoke aeration pipe       yes without smoke aeration pipe

### 8.2.5 HEALTH RELATED ISSUES

50-Do you think smoke/dust can cause diseases?

no       don't know       yes

▶▶51-Do you think that water can carry diseases?  
respiratory problems

no       don't know     

eyes       diarrhoea       fever       worms       skin  
 cold

52-Do you think that flies can carry diseases?

no       don't know       yes

53-Do you think that food can carry diseases?

no       don't know       yes

54-During the last month, how many children under 5 had diarrhoea? \_\_\_\_\_

▶▶55-If one gets diarrhoea, what do you do?

nothing       traditional medicines       buy drugs  
 health center/hospital       give ORS

56-Do you know how to prepare home made ORS?

yes       no

57-Do you have the capacity (means) to do it?

yes       no

58-Did you already did it?

yes       no

▶▶59-How can we avoid common illnesses?

hand washing       use latrine       drink safe water       boil drinking water  
 filter drinking water       good hygiene       don't know       others