

Appendices

Appendix A

A survey questionnaire

On factors affected to Sanitation Program In Sub-district Namson, Socson, Northern of Vietnam

1. Instructions for use of a Questionnaire

1. The survey should be done by the house-wife of household
2. Please, answer all the questions sincerely
3. All information will be treated confidentially and is needed purely for the research purpose
4. Please, circle the appropriate number. Ask the house-wife first, if she can read or write, if she can not read or write the interviewer should ask her and circle the appropriate number
5. Please, write the appropriate answer at the relevant space
6. Please, do not leave blank spaces

2. General information of respondent and Households

2.1 Name of the respondent:.....

2.2 Age:..... years old

2.3 Address: Number of household..... Village..... Namson Sub-district

2.4 Status of the respondent

1. Housewife
2. Mother (if no housewife)
3. Others female who take care of the house, specify:

2.5 Education of the respondent

1. You can read
2. You can write
3. Higher level, specify:

2.6 Occupation of the respondent

- | | |
|-------------------|--------------------|
| 1. Farmer | 4. Civil servant |
| 2. Craftsmanship | 5. Unemployed |
| 3. Small business | 6. Other, specify: |

2.7 Number of persons are present in the household:

3. Socio-economic factors of households

3.1 Household's income

1. You have a saving
2. You are in debt
3. No saving and no debt

3.2 Construction material of the house (the interviewer observe and circle)

- | | |
|--------------------|----------------------|
| 1. Bamboo and soil | 4. Cement and bricks |
| 2. Wooden | 5. Other, specify: |
| 3. Cement and wood | |

3.3 Do you think that your earning is enough for your necessary expense?

1. Enough
2. Not enough

3.4 Households' commodities (Ask or look for the following information: Do they have following items? and then circle)

- | | |
|------------|---------------|
| 1. Radio | 4. Television |
| 2. Fans | 5. Motorcycle |
| 3. Bicycle | 6. Water pump |

4. Knowledge, Awareness and Practices of Households about latrine

4.1 Do you have a family latrine?

1. Yes (if YES answer 4.2 to 4.4)
2. No (if NO answer 4.5 to 4.10)

4.2 What type of latrine do you have?

- | | |
|----------------|-----------------------|
| 1. One vault | 4. Water seal latrine |
| 2. Two vaults | 5. Pour-Flush latrine |
| 3. Pit latrine | 6. Other, specify: |

4.3 According to you a hygienic latrine should be (Multiple answer)

- | | |
|-----------------------------------|----------------------------|
| 1. No bad odor | 4. Bucket for toilet paper |
| 2. No flies | 5. Broom for cleaning |
| 3. No feces or urine on the floor | 6. Do not know |
| | 7. Other, specify: |

4.4 From which source do you get information about hygienic latrine?

- | | |
|--------------------|--------------------------|
| 1. From radio | 3. Commune health worker |
| 2. From Television | 4. From other, specify: |

4.5 If you do not have latrine, where do you and your family usually defecate?

- | | |
|-------------------------|---------------------------|
| 1. Animal-pen | 3. At any where, specify: |
| 2. The neighbor latrine | |

4.6 Do you want to construct a latrine?

1. Yes(if YES answer 4.8)
2. No (if NO answer 4.7)

4.7 If you don't want to construct a latrine what are reasons? (Multiple answer)

- | | |
|-------------|--------------------------------------|
| 1. No money | 3. Can use latrine of another family |
| 2. No land | 4. Other, specify: |

4.8 When do you plan to construct a latrine?

- | | |
|--------------------|--------------------|
| 1. After 1 month | 3. After 1 year |
| 2. After six month | 4. Other, specify: |

4.9 How much money do you think be needed to construct a hygienic latrine?

- | | |
|---|-----|
| 1. About | VND |
| 2. Can you afford to build a latrine at | VND |
| 3. Do not know | |

4.10 According to you who must provide latrine?

- | | |
|-------------------------------------|--------------------|
| 1. Individual households themselves | 3. Non-Government |
| 2. Government | 4. Other, specify: |

5. Feces as fertilizer

5.1 Do you and your family usually use feces as fertilizer?

1. Yes (if YES answer 5.2 to 5.4)

2. No

5.2 Do you usually use fresh feces or decomposed feces as fertilizer?

1. Fresh feces
2. Decomposed feces

5.3 If you use fresh feces, What is /are main reason(s)?

- | | |
|----------------------------------|-------------------|
| 1. Think it is better for plants | 4. Do not know |
| 2. Not dangerous | 5. Other, specify |
| 3. Long time habit | |

5.4 If you use decomposed feces, what is/are main reasons? (Multiple answer)

- | | |
|---------------------------------|------------------------------------|
| 1. Think it is better for plant | 3. Learn from information ,specify |
| 2. For hygiene reason | 4. Do not know |
| | 5. Other, specify: |

6. Knowledge, Awareness and Practices of Households about diseases related to Human excreta Disposal

6.1 Do you know that improper disposal of human excreta can cause diseases?

1. Know
2. Do not know

6.2 Do you know which are the fecal born diseases? (Multiple answer)

- | | |
|--------------|-------------------|
| 1. Diarrhea | 4. Worm infection |
| 2. Dysentery | 5. All above |
| 3. Cholera | 6. No one |

6.3 Have you ever seen worm in your or your family member feces?

1. Yes
2. No

6.4 How many kind of worm that you know, Please names it?

- | | |
|---------------|--------------------|
| 1. Round worm | 4. Pin worm |
| 2. Hook worm | 5. Do not know |
| 3. Whip worm | 6. Other, specify: |

6.5 Do you know what are the causes of worm infection (multiple answer)

- | | |
|-----------------------------|-------------------------|
| 1. Eating contaminated food | 5. Not hygienic latrine |
| 2. Drinking unboiled water | 6. Unsafe water supply |

- | | |
|------------------------------------|--------------------|
| 3. Contaminated hands | 7. Other, specify: |
| 4. Using fresh feces as fertilizer | 8. Do not know |

6.6 Do you know how to prevent worm infection? (Multiple answer)

- | | |
|---|-------------------------|
| 1. Construct hygienic latrine | 6. Fly control |
| 2. Do not use fresh feces | 7. Deworming every year |
| 3. Using safe water | 8. Do not know |
| 4. Having safe food | 9. Other, specify: |
| 5. Wash hands before meal
and after defecation | |

6.7 Is there any body in your family that has dewormed since last six months?

1. Every one
2. Only some one
3. Nobody

6.8 Do you know what are the main reasons of diarrhea? (Multiple answer)

- | | |
|-----------------------------|-------------------------|
| 1. Eating contaminated food | 5. Not hygienic latrine |
| 2. Drinking unboiled water | 6. Unsafe water supply |
| 3. Contaminated hands | 7. Other, specify: |
| 4. Using fresh feces | 8. Do not know |

6.9 Is there any body in your family who has diarrhea since last two weeks?

1. Yes
2. No

6.10 Do you know how to prevent diarrhea? (Multiple answer)

- | | |
|----------------------------|--|
| 1. Having safe food | 6. Wash your hands before
meal and after defecation |
| 2. Using hygienic latrine | 7. Fly control |
| 3. Do not use fresh feaces | 8. Other, specify: |
| 4. Using safe water supply | 9. Do not know |
| 5. Deworming | |

6.11 Do you and your family member usually wash hands after defecation and before meal?

1. Yes
2. Never
3. Some time

6.12 Do you and your family usually drink boiled water?

1. Yes
2. Not usually
3. Never

7. Knowledge, Awareness and Practices of Households about water supply sources

7.1 Where do you usually get your drinking water supply?

- | | |
|------------------|--------------------|
| 1. Rain water | 4. River |
| 2. Open dug well | 5. Ponds |
| 3. Tube-well | 6. Other, specify: |

7.2 According to you, which is safe water supply? (Multiple answer)

- | | |
|------------------|--------------------|
| 1. Rain water | 4. River |
| 2. Open dug well | 5. Ponds |
| 3. Tube-well | 6. Other, specify: |

7.3 According to you, your present water supply source is safe or not?

1. Yes
2. No (if NO answer 7.4 to 7.8)
3. Do not know

7.4 If your water supply is not safe, do you know where do the causes come from?

(Multiple answer)

- | | |
|--------------------|--------------------|
| 1. Latrine | 4. Solid waste |
| 2. Animal disposal | 5. Other, specify: |
| 3. Sewage | 6. Do not know |

7.5 Do you want to have safer water supply?

1. Yes (if YES answer 7.6 to 7.7)
2. No (if NO answer 7.8)

7.6 If YES, which source of water supply would you prefer?

- | | |
|------------------|--------------------|
| 1. Rain water | 4. River |
| 2. Open dug well | 5. Ponds |
| 3. Tube-well | 6. Other, specify: |

7.7 If YES, When do you want to have new water safe water supply sources?

1. After 1 month
2. After 6 months
3. After one year
4. Other, specify

7.8 If NO, what are the reasons?

1. No money
2. No need
3. Other, specify:

8. Local Health Care Services and Local Sanitation program

8.1 Is there any Health worker in your village?

1. Yes (if YES answer 8.2 to 8.3)
2. No

8.2 Have the Health workers ever done Health Care Education before?

1. Yes
2. No
3. Do not know

8.3 If YES, do you remember what did they talk about? Please specify:

8.4 Since last year, did the Health worker visit your latrine and water supply resource?

1. Yes (if YES answer 8.5)
2. No

8.5 If YES, what did they recommend you to do? Please specify:

8.6 If we provide a Sanitation Education course, do you want to take part?

1. Yes (if YES answer 8.7)
2. No (if NO answer 8.8)

8.7 Which topic do you want most to have more knowledge among following topics?

1. Construction , using and maintenance of latrine
2. Safe water supply resources
3. How to prevent parasitic diseases
4. How to prevent diarrhea
5. Other, specify:

8.8 If NO, what are the main reasons?

1. Have no time, very busy
2. Already know every things
3. Do not want to go to crowded population
4. No need
5. Other, specify:

8.9 Are there any village's development funds for Sanitation in your village?

1. Yes (if YES answer 8.10)
2. No

8.10 If YES, What are they?

- | | |
|----------------------|---------------------|
| 1. Sanitation fund | 3. Health Care fund |
| 2. Water supply fund | 4. Other, specify: |

9. Households' Health Situation

9.1 Is there any sick person in your family since last two weeks?

1. Yes
2. No

9.2 If YES, who was sick, and what is the illness? Please specify:

9.3 According to you what is the most serious illness that you have during the last year? Please select one!

- | | |
|---------------------------|-------------------|
| 1. Diarrhea | 5. Chest pain |
| 2. Worm infection | 6. Stomach aches |
| 3. Common cold | 7. Dyspnea |
| 4. Respiratory infectious | 8. Other, specify |

10. Observation and assessment of interviewer

10.1 Does household have latrine or not?

1. Yes
2. No

10.2 What type of latrine that household using

- | | |
|----------------|-----------------------|
| 1. One vault | 4. Water seal latrine |
| 2. Two vaults | 5. Pour-Flush latrine |
| 3. Pit latrine | 6. Other, specify |

10.3 Is latrine hygienic or not? (Circle the appropriate number base on the enclosed checklist)

1. Very hygienic
2. Hygienic
3. Rather hygienic
4. Not hygienic

10.4 What kind of water supply, that household is using now?

- | | |
|------------------|--------------------|
| 1. Rain water | 4. River |
| 2. Open dug well | 5. Ponds |
| 3. Tube-well | 6. Other, specify: |

10.5 Is water supply, that household using safe or not? (Base on the enclosed checklist), Please make a cross (+) in the appropriate place

Standard	Dug well	Rain water storage	Other, specify:.....
Very safe			
Safe			
Rather safe			
Not safe			

Thank you very much for your information!

Signature of supervisor

, Dated...../03/2002

Signature of interviewer

Appendix B

Check list for the household latrine

Name of the Household's head:.....

Household's number:.....

Village:.....Sub-district Namson

Name of observer:.....

Date of the observation:...../...../200...

Type of Household's latrine :.....

Criteria			Yes	No
Technical	1	More than 10 meters from the water fetching points	1	0
	2	Water can not enter the vault though the gap	1	0
	3	Have fit lid	1	0
	4	Have fit access door (for emptying feces)	1	0
	5	Enough the added materials (ash, soil, lime...)	1	0
Sanitation	6	Less odor	1	0
	7	No flies	1	0
	8	No faces on the floor	1	0
Using	9	Use two vaults in the right way	1	0
	10	Evidences of regularly cleaning (broom, clean surrounding, ...)	1	0
	11	Urine is separated from feces	1	0
	12	Add materials (ash, soil, lime,...) after defecation	1	0

Evaluated standard: Circle the appropriate number, Please!

1. Very hygienic: 12
2. Hygienic: 8-10
3. Rather hygienic: 6
4. Not hygienic: 0

Signature of observer

Source: Dao Ngoc Phong et. al. 1989.

Appendix C

Check list for water supply sources

(For rainwater storage system)

Name of the Household's head:.....

Household's number:.....

Village:.....Sub-district Namson

Name of observer:.....

Date of the observation:...../...../200...

Criteria		Yes	No
1	No contaminated substances on the roof (waste, bird's faces, dust,..)	1	0
2	Clean collecting vessels	1	0
3	Have filtration system before pouring in the storage	1	0
4	Have a cover / lid	1	0
5	More than 10 meters from latrine and other contaminated sources	1	0
6	Evidences for regularly cleaning the storage an surroundings (storage free of moss, no solid waste around,....)	1	0
7	Have the drainage for used water	1	0
8	Water storage container free from dirt	1	0
9	Have a cup with long handle for collecting water	1	0

Evaluated standard: Circle the appropriate number, Please!

1. Very safe: 9
2. Safe: 6-8
3. Rather safe: 5
4. Not safe: 0

Signature of observer

Appendix D

Check list for water supply sources (For the dug well)

Name of the Household's head:.....
Household's number:.....
Village:.....**Sub-district Namson**
Name of observer:.....
Date of the observation:...../...../200...

Criteria		Yes	No
1	More than 15 m to the latrine		
2	More than 10m to other contaminated sources (pig-pen, solid waste,..)		
3	Have a lined floor surround the well		
4	Have a lined wall inside the well > 3 meters depth		
5	Have a cover/lid		
6	The bucket is hang up (not laid on the floor)		
7	Have the drainage for used water		

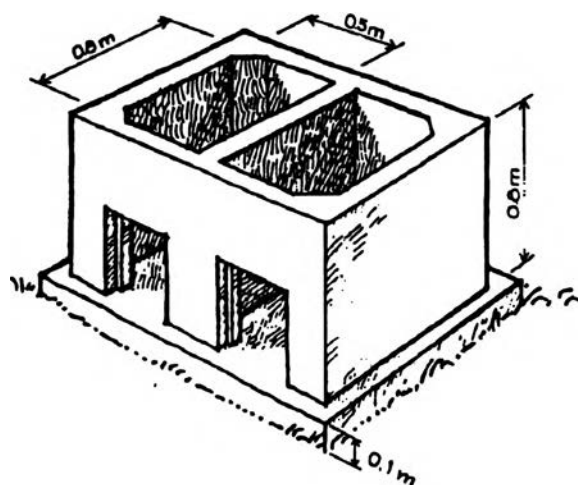
Evaluated standard: Circle the appropriate number, Please!

1. Very safe : 7
2. Safe : 5-6
3. Rather safe : 4
4. Not safe : 0

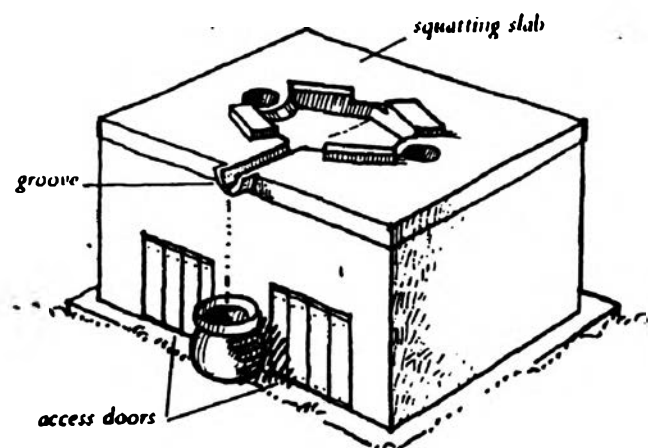
Signature of observer

Appendix E

The double-vaults latrine (dry compost latrine)



The receptacle of a dry compost latrine. It is divided into two vaults

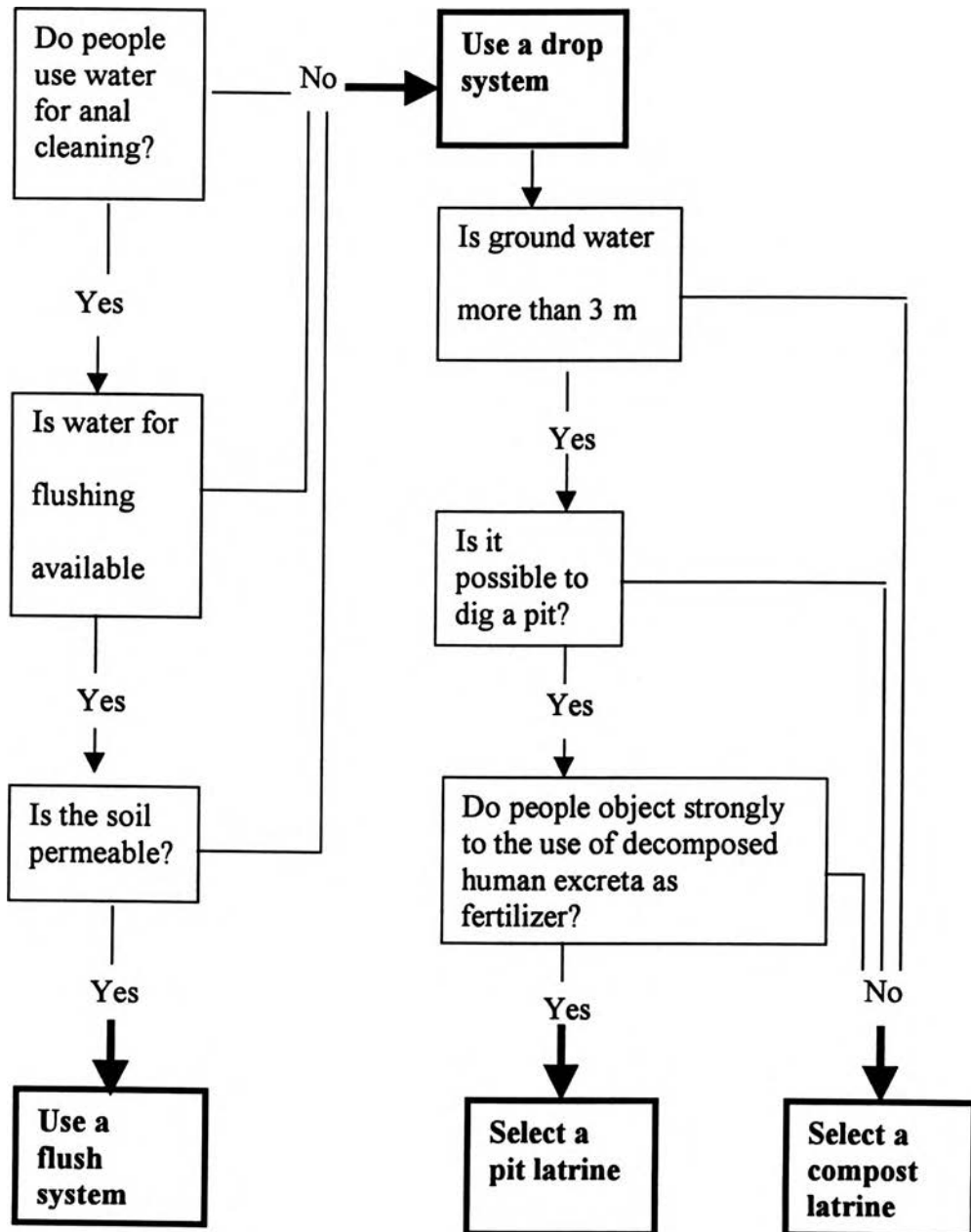


The dry compost latrine seen from the back. The squatting slab has a pan for separation of urine

Source: Uno Winblad, Wenkilama. *Sanitation without water*. 1985

Appendix F

Selecting the right latrine in rural areas



Appendix G

Technical Options of Sanitation facilities

Type	Cost	Water supply Requirement	Advantages	Disadvantages
Simple pit latrine	Low	None	Can be built by household	Insect and smell nuisance
VIP latrine	Low	None	Can be built by household Control of flies Control of smell	Does not control mosquitoes Extra cost of vent pipe
Water seal pour-flush latrine	Low	Standpipe	Control of flies and mosquitoes Control of smell Content of pit not visible Give users the convenience of a water closet Can be upgraded Latrine and pit can be located separately	Need reliable water supply Unsuitable where solid anal cleaning material is used
Compost latrine	Medium	None	A valuable humus is produced	Requires careful operation Additives must be added regularly Urine has to be collected separately
Septic tank	High	In-house tap connections	Give the users the convenience of a water closet	High cost Requires reliable and ample piped water Only suitable for low density housing Regular desludging required Permeable soil required
Aqua-privy	Medium	Yard taps	No need for pipe water Less expensive than a septic tank	Water must be available near by Not easy to maintain a seal Regular desludging required Permeable soil required

Source: UNDP-World Bank. Water and Sanitation Program. On-site sanitation. 1999

Curriculum Vitae

Name	Tran Minh Hai
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