REGIONAL WATER SUPPLY AND SANITATION PROJECT

BENI SUEF GOVERNORATE

REORIENTATION PHASE

DRAFT REPORT

TASK TEAM 6

R 3/3.3

CUSTOMER OPINION STUDY ON LOW COST SANITATION

28.03.1998

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REGIONAL WATER SUPPLY AND SANITATION PROJECT

BENI SUEF GOVERNORATE

Reorientation Phase /28.03.1998

CUSTOMER OPINION STUDY ON LOW COST SANITATION

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1 PURPOSE OF THE STUDY

This study is task R 3/3.3 of the Work Plan of the Reorientation Phase of the Project. The task is identified as follows:

- Carrying out a customer opinion survey concerning low cost options (conventional septic tanks, on-site treatment etc.) vs. piped collection with obligation to pay for the service.

The purpose of the study is to support the decision making concerning the strategy for low cost sanitary drainage to be formulated by Task Team 6.

2 SCOPE AND METHODOLOGY OF THE STUDY

A questionnaire prepared by the Project staff is attached as Annex 1 of the report.

3 DATA COLLECTION

3.1 Villages

The following were identified as selection criteria of the villages:

- population < 5000
- villages will not be connected to piped sewage system within 5 km distance

Kafr Mansour (Beba) , Nazlet Hannah (El Fashn) and Nasr Gomah (Sumusta) were selected as sample villages of the study. Nazlet Hannah has population around 3000 (Population information, Project office 1994) and Nasr Gomah around 1600 (Village Chief information 1998). Kafr Mansour has population around 5000 (Population information, Project office 1994).

3.2 Data collectors

Data collection was done by six Local Women Coordinators supervised by Community Participation staff of the Project. Project staff trained them on the sanitation options and the use of the questionnaire prior to the implementation of the study.

3.3 *Respondents of the study*

The total number of sample was 66 households. Out of the respondents, 23 % were male, 38 % female. In 32 % of the interviews, both husband and wife were present. Respondents of the study is presented in table 1.

Table 1 Respondents of the study

Location	No of households	Husband		Wife		Both		Other family member	
		N	%	N	%	N	%	N	%
Kafr Mansoor	20	-	-	10	50	8	40	2	10
Nazlet Hannah	20	4	20	6	30	9	45	1	5
Nasr Gomah	26	11	42	9	35	4	15	2	8

4 FINDINGS ON THE PRESENT FACILITIES

4.1 *Present water supply and sanitation facilities in sample households*

Seventy percent (70%) of the sample houses have latrine facilities and soakaway or septic tank; and 41 % have water connection. Present water supply and sanitation facilities in the sample households are presented in tables 2 and 3.

Table 2. Present water supply and latrine facilities in the sample houses

Location		**Latrine in the house**		No latrine		**Water connection**		No water connection	
		N	%	N	%	N	%	N	%
Kafr Mansoor	20	17	85	3	15	15	75	5	25
Nazlet Hannah	20	11	55	9	45	4	20	16	80
Nasr Gomah	26	18	69	8	31	8	31	18	69

Table 3. Availability of soakaway /septic tank

Location	Soakaway available		Septic tank available		Not available	
	N	%	N	%	N	%
Kafr Mansoor 20	17	85	-	-	3	15
Nazlet Hannah 20	8	40	3	15	9	45
Nasr Gomah 26	18	69	-	-	8	31

In the sample households most (93%) of the sanitary facilities were soakaways. Only three septic tanks were found. Seventy percent (70%) of soakaways were constructed less than 5 years ago; and 14 % more than 15 years ago. The life span of the soakaways is presented in table 4.

Table 4. Soakaway constructed

Location	1- 4 years ago		5-9 years ago		10-14 years ago		> 15 years ago	
	N	%	N	%	N	%	N	%
Kafr Mansoor 17	8	47	4	24	2	12	3	17
Nazlet Hannah 11	3	27	1	9	4	36	3	15
Nasr Gomah 18	7	39	1	6	3	17	7	39

4.2 *Disposal of grey water*

In the sample households, 35 % of the kitchen water is disposed to the canal, 38 % to the street and 17 % to the latrine. Disposal of kitchen water is shown in table 5.

Table 5. Disposal of kitchen water

Location	Canal		Street		Latrine		Canal&Street	
	N	%	N	%	N	%	N	%
Kafr Mansoor 20	7	35	1	5	5	25	7	35
Nazlet Hannah 20	15	58	3	15	2	10	-	-
Nasr Gomah 26	1	4	21	81	4	15	-	-

Nearly half (44%) of the sample households dispose bathing water to the latrine; 35 % dispose to the canal ; and 21 % to the street.

Table 6.Disposal of bathing water

Location	Canal		Street		Latrine	
	N	%	N	%	N	%
Kafr Mansoor 20	6	30	1	5	13	65
Nazlet Hannah 20	16	80	2	10	2	10
Nasr Gomah 26	1	4	11	42	14	54

4.3 *Emptying soakaways*

Only few of the existing soakaways were emptied. Three septic tanks in Nazlet Hannah were 3-7 years old. None of those were emptied.

Table 7. Emptying soakaways

Location	No of soakaway		Emptied		Not emptied	
	N	%	N	%	N	%
Kafr Mansoor 20	17		-	-	17	100
Nazlet Hannah 20			3	38	5	62
Nasr Gomah 26			4	22	14	78

4.4 Frequency of emptying soakaways

Kafr Mansour: None of the existing soakaways were emptied. Some of the soakaways were 'very wide'. Most of the families use them for limited purpose (toilet, bathing).

Nazlet Hannah:

Soakaways 1-4 years : Not emptied

Soakaways 5-9 years: Not emptied

Soakaways 10-14 years: One time, one pit annually

Soakways > 15 years: One pit twice, others not emptied

Nasr Gomah:

Two soakaways were constructed over 30 years ago. Never emptied. Families use those for all purpose. Family members 10 and 8. One family did not empty soakaway after it got full. They stopped using it because if they use it, they have to vacuum it again. One family complained about bad smell which came from the soakaway.

4.5 By whom soakaways are emptied

Out of the seven soakaways emptied, all were emptied by a contractor. This is shown in table 8.

Table 8.Who has emptied the soakaway

Location	No of soakaway emptied	Emptied by contractor		Emptied by family	
		N	%	N	%
Kafr Mansoor 20	-	-	-	-	-
Nazlet Hannah 20	3	3	100	-	-
Nasr Gomah 26	4	4	100	-	-

4.6 Costs paid to empty soakaway

Most of the households who had emptied soakaway had paid less than 50 LE for emptying.

Table 9. Costs paid to empty soakaway

Location	10- 29 LE		30- 49 LE		> 50 LE	
	N	%	N	%	N	%
Kafr Mansoor	-	-	-	-	-	-
Nazlet Hannah 3	-	-	3	100	-	-
Nasr Gomah 4	1	25	2	50	1	25

5 OPINION ON SANITATION FACILITIES

5.1 Priorities to improve sanitation

Twenty nine (29%) of the sample households have the opinion to improve toilet waste facilities as first priority; 36 % grey water facilities as first priority, and 26 % of the households consider both facilities equally important. 9 % of the households could not specify. Households' priorities to improve sanitation is shown in table 8.

Table 10. Priority to improve sanitation in house

Location	Toilet waste priority		Both important		Grey water priority		Cannot specify	
	N	%	N	%	N	%	N	%
Kafr Mansoor 20	6	30	9	45	1	5	4	20
Nazlet Hannah 20	7	35	6	30	6	30	1	5
Nasr Gomah 26	6	23	9	35	10	38	1	4

5.2 Best option for toilet waste

More than half (62 %) consider double pit latrine as best option for toilet waste. 21 % consider septic tank, and 6 % soakpit. Eleven percent (11 %) of the respondents could not specify. Best option for toilet waste is presented in table 11.

Table 11. Best option (Marked as 1= Best option)

Location	Soakpit		Septic tank		Double pit		Cannot specify	
	N	%	N	%	N	%	N	%
Kafr Mansoor 20	1	5	2	10	13	65	4	20
Nazlet Hannah 20	2	10	4	20	13	65	1	5
Nasr Gomah 26	1	4	8	31	15	57	2	8

The respondents gave the following reasons in prefering double pit model as a best option for toilet waste:

Easy to use

The house will be clean
Health prevention
Content can be used as fertilizer
Easy to clean
Not harmful for environment

5.3 *Willingness to contribute partly for the construction of double pit latrine*

More than half (57 %) of the households were willing to contribute partly for the construction of the double pit latrine, if some organization would offer part of the construction material. 27 % were not willing to contribute, and 15 % did not know.

Table 12. Willingness to contribute partly for construction of double pit latrine

Location	Yes		No		Don't know	
	N	%	N	%	N	%
Kafr Mansoor 20	13	65	7	35	-	-
Nazlet Hannah 20	12	60	1	5	7	35
Nasr Gomah 26	13	50	10	38	3	12

GREY WATER COLLECTION

5.4 *Best option for grey water facilities*

More than two third (80 %) of the households prefer **on-site grey water system outside the house as best option for grey water facility.** 11 % prefer on-site system with house connection, and 8 % of the households could not specify.Best option for grey water facility is presented in table 13.

Table 13. Best option (Marked as 1= best option)

Location	Septic tank		On-site ww outside house		On-site ww inside house		Cannot specify	
	N	%	N	%	N	%	N	%
Kafr Mansoor 20	1	5	14	70	2	10	3	15
Nazlet Hannah 20	-	-	17	85	1	5	2	10
Nasr Gomah 26	-	-	22	85	4	15	-	-

- House constructed by mud brick and it is not suitable for having the system inside the house (fear that the house will collapse)
- Whole community can use it without price
- Small houses- no place for having the system inside the house
- Outside option is cheaper than the other option (response by many households)

Reasons for preferring grey water system inside house:

- Easy to use at any time
- No need to carry water outside, the system is convenient
- It is suitable to throw any kind of water (other people will not see how dirty disposed water is, social shame)

5.5 *Community contribution for the construction of grey water system*

More than half (55%) of the households were willing to contribute labour for the construction of grey water system in their village; 24 % were willing to contribute by cash, and 4% in kind. Eight percent (8 %) of the households were not willing to share any contribution. Community participation in construction of grey water systems in sample location is presented in table 14.

Table14. Community participation in construction of grey water systems

Location	Labour		Cash		Both/labour and cash		In kind		Not willing to share	
	N	%	N	%	N	%	N	%	N	%
Kafr Mansoor 20	8	40	8	40	3	15	-	-	1	-
Nazlet Hannah 20	15	75	3	15	1	5	-	-	1	5
Nasr Gomah 26	13	50	5	19	2	8	3	12	3	12

5.6 *Financial contribution for the construction of grey water system*

Out of those who were willing to contribute by cash, 68 % were willing to contribute less than 100 LE; and 18 % more than 100 LE. Fourteen percent (14%) could not specify their contribution.

Table 15. Financial contribution for the construction of grey water systems

Location	< 50 LE		50-100 LE		100-150 LE		>150 LE		Cannot specify	
	N	%	N	%	N	%	N	%	N	%
Kafr Mansoor 11	7	64	2	18	1	9	-	-	1	9
Nazlet Hannah 4	2	50	-	-	-	-	-	-	2	50
Nasr Gomah 7	-	-	4	57	2	29	1	14	-	-

Some of the households expressed a doubt about neighbours willingness and ability to pay for the construction of grey water facility. They told that people want to give more positive impression than the reality is. One community organization (CEOS) has been working in the village and offered them many facilities, but there was not positive response from the community.

5.7 Maintenance of grey water system

Nearly half (48%) of the sample households prefer to share the maintenance responsibility with neighbours; and 42 % prefer hire somebody to do the maintenance job. 9 % of the households were not willing to share the maintenance. Respondents preference for maintenance is shown in table 16.

Table 16. Maintenance of grey water systems

Location	Share maintenance responsibility		Hire somebody to do the job		Not willing to contribute	
	N	%	N	%	N	%
Kafr Mansoor 20	8	40	9	45	3	15
Nazlet Hannah 20	16	80	2	10	2	10
Nasr Gomah 26	8	31	17	65	1	4

5.8 Ability to pay for the hired maintenance service

Those who prefered hired maintenance service, 79 % are able to pay 1-2 LE monthly for the service. Ability to pay for the hired maintenance service is shown in table 17.

Table 17. Ability to pay for the hired maintenance of grey water system /monthly

Location	1 - 2 LE /monthly		3-5 LE/monthly	
	N	%	N	%
Kafr Mansoor 9	7	78	2	22
Nazlet Hannah 2	1	50	1	50
Nasr Gomah 17	14	82	3	18

6 PIPED SEWAGE COLLECTION

6.1 *Necessity for piped sewage collection including obligation to pay for the service*

Respondents were asked whether they consider necessary to have piped sewage collection in their house with obligation to pay for the service. More than half (53 %) of the households expressed necessity to have piped sewage collection. More than one third (38 %) did not consider necessary to have piped sewage collection; and 9 % of the households could not specify their need. Necessity for piped sewage collection is shown in table 18.

Table 18. Necessity for piped sewage collection

Location	Yes		No		Cannot specify	
	N	%	N	%	N	%
Kafr Mansoor 20	9	45	11	55	-	-
Nazlet Hannah 20	7	35	13	65	-	-
Nasr Gomah 26	19	73	1	4	6	23

6.2 *Ability to pay for house connection*

Those households who consider necessary to have piped house connection, 63 % were able to pay up to 100 LE; 29 % were able to pay more than 100 LE. Nine percent (9%) of the households responded that they are not able to pay - in spite of that they consider necessary to have piped sewage connection. Ability to pay for house connection is presented in table 19.

Table 19. Ability to pay for house connection

Location	< 50 LE		50 - 100 LE		100-200 LE		> 200 LE		Not able to pay	
	N	%	N	%	N	%	N	%	N	%
Kafr Mansoor 9	2	22	4	44	2	22	1	11	-	-
Nazlet Hannah 7	3	43	1	14	-	-	2	28	1	14
Nasr Gomah 19	4	21	8	42	2	11	3	16	2	10

6.3 *Ability to pay for monthly operation and maintenance of the piped sewage collection*

Out of those households who consider necessary to have piped sewage connection, more than half (54 %) are able to pay 5-10 LE for the monthly operation and maintenance fee; 31 % of the households are able to pay < 5 LE monthly. Ability to pay monthly operation and maintenance fee is presented in table 20.

Table 20 Ability to pay monthly operation and maintenance fee

Location	< 5 LE		5-10 LE		10-20 LE		Not able to pay	
	N	%	N	%	N	%	N	%
Kafr Mansoor 9	4	44	5	56	-	-	-	-
Nazlet Hannah 7	6	86	-	-	1	14	-	-
Nasr Gomah 19	1	5	14	74	1	5	3	16

6.4 *Level of the house from the street*

For the planning purposes, the level of the house from the street was also estimated in the study. The findings are presented in table 21.

Table 21. Level of the house from the street

Location	Street level or above		Down from street level 5 - 14 cm		Down from street level15 - 24 cm		Down from street level 25- 49 cm		Down from street level > 50 cm	
	N	%	N	%	N	%	N	%	N	%
Kafr Mansoor 20	10	50	5	25	3	15	2	10	-	-
Nazlet Hannah 20	6	30	3	15	3	15	7	35	1	5
Nasr Gomah 26	18	69	1	4	3	12	4	15	-	-

7 RELIABILITY OF THE DATA

In order to increase the reliability of the data, Project staff gave a short training to Local Women Coordinators prior to start of the study. The Chief Engineer Planning (CEP) explained various sanitation options included in the study questions. Interview situations were also practiced 'in classroom' prior to start of the field work. Community participation staff of the Project supervised the field work in all locations. It was observed that, some of the Local Women Coordinators faced difficulties in working as 'researher', and avoiding to 'push own ideas' to the respondents. This behaviour was corrected during the field supervision.

8 CONCLUSION AND SUMMARY

The sample of the study comprise 66 households from three villages in the project area.

Seventy percent (70%) of the sample households have latrine facilities; and 41% have water connection.

Existing water supply and sanitary facilities

Sanitary facilities in the households were mainly (93%) soakaways. Only three septic tanks were found. Only few of the existing soakaways were emptied. All were emptied by a contractor.

Disposal of grey water

In the sample households, 35 % of **kitchen water** is disposed to the canal, 38% to the street, 17 % to the latrine and 10 % use both canal and street. Nearly half (44%) dispose **bathing water** to the latrine; 35 % to the canal; and 21 % to the street.

Opinion on sanitation facilities

Thirty six percent (36%) of the sample households have the opinion to improve grey water facilities as first priority. 26 % to improve toilet facilities as first priority. 26 % of the households consider both facilities equally important. 9 % of the households could not specify.

Toilet waste

More than half (62%) consider double pit latrine as best option for toilet waste. 21 % consider septic tank; and 6 % soakpit. 11 % of the repondents could not specify.

More than half (57%) of the sample households were willing to contribute partly for the construction of the double pit latrine, if some organization would offer part of the construction material.

Grey water disposal

More than two third (80 %) of the households prefer on-site grey water system outside the house as best option to improve grey water facilities. 11 % prefer on-site grey water facility with house connection 8 % of the households could not specify.

More than half (55%) of the households were willing to contribute labour for the construction of grey water system in their village. 24 % were willing to contribute by cash; 9 % both labour and cash, 8 % in kind. Only 8 % of the households were not willing to share any contribution. Out of those who were willing to contribute by cash, majority (68 %) were willing to contribute less than 100 LE.

Nearly half (48%) prefer to share the maintenance responsibility with neighbours; and 42 % prefer to hire somebody to do the maintenance job. Those who prefer hired maintenance service, majority (79%) are able to pay 1-2 LE monthly for the hired maintenance service.

Piped sewage collection

More than half (53%) of the households expressed necessity to have piped sewage collection in the house. Out of those households, majority (63%) were able to pay up to 100 LE. Nine percent of the households were not able to pay, in spite they consider piped sewge house connection necessary. Out of those who consider piped sewage connection necessary, about half (54%) are able to pay 5-10 LE monthly as operation and maintenance fee.

REGIONAL WATER SUPPLY AND SANITATION PROJECT
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CUSTOMER OPINION STUDY ON LOW COST SANITATION

Markaz_____Subvillage_____Date of visit_____

Name of Local Woman Coordinator_____

Interview conducted with Husband ( ) wife ( ) Both ( ) Other family member ( )

Who?_____

Occupation of the head of the household_____

PRESENT FACILITIES

1. Do you have a Latrine in your house?
Yes ( )
No ( )

2. How do you dispose your gray water?
2.1 Washing water from kitchen, laundry
2.2 Bathing water _____

3. Do you have soakpit (Not isolated tank) ( )
septic tank (Isolated tank) ( )

If you have soakpit or septic tank when it is constructed?
Construction date_____

How it is emptied ?
Contractor ( )
Yourself/ Your family member ( )
Not vacuumed yet ( )

4. If is already vacuumed, how much you paid to empty it?_____

5.How often it is done?_____

OPINION ON PROPOSED SANITARY FACILITIES

6. What are your priorities to improve sanitation in your village?

( ) To improve toilet facility
( ) To improve waste water facility
( ) Both of them on equal importance
( ) I don't Know

What is your priorities order to the following options for improving waste water system in your village? (Mark 1 to show the first option, Mark 2 to show the second option, Mark 3 to show the third best option)

( ) Soak pit
( ) Septic tank
( ) double pit latrine

If an organization would provide you the latrine foundation and the pipes, Are you ready to contribute partly in the construction of the above structure of the latrine including walls, door, ceiling and windows which will cost LE. 150 approximately ?
( ) Yes
( ) No

GRAY WATER COLLECTION

9 What is your priorities order to the following alternatives for improving the gray water disposal system in your village?
"1 means the best alternative ".
"2 means the best second alternative".
"3 means the best third alternative".

( ) Soak pit (to be emptied by vacuum truck)
( ) on-site gray water system outside the house
( ) on-site gray water system connected inside the house.

0. In what way will you contribute in the costs of the gray water system in your village?

( ) Workers
( ) money
( ) personal work (building, transporting ……etc)
( ) Nothing

11. If you are willing to contribute by money, how much you are able to pay for the **construction cost** of the gray water in your village>

( ) < 50 LE
( ) 50 - 100 LE
( ) 100 - 150 LE
( ) > 150 LE

12. If gray water system will be constructed in your village, in what way you are ready to contribute for maintenance of the gray water systems?
( ) Share the maintenance responsibility with the neighbors
( ) Hire somebody to do the job by paying monthly for his service
( ) Not willing to contribute

3. If you prefer to hire somebody to do the job, how much you are able to pay monthly for the hired maintenance service?

( ) 1-3 LE/ per family
( ) 3-5 LE/ per family
( ) Not able to pay

PIPED SEWAGE COLLECTION

14 Do you consider necessary to connect your house to piped sewer system and contribute at least to cover the operation and maintenance costs?
( ) Yes
( ) No

15. If you want house connection, how much would you be able to pay for house connection? (connection fee)
( ) < 50 LE
( ) 50 - 100 LE
( ) 100 - 200 LE
( ) > 200 LE

6. How much would you be able to pay monthly as operation and maintenance fee for the piped waste water system?

( ) < 5 LE
( ) 5 - 10 LE
( ) 10 - 20 LE
( ) Not able to pay

17. Estimate the level of the house from the street:_____cm
18. Do you have water connection in the house?
( ) Yes
( ) No