



Lebanon End of Program Evaluation



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Table of Contents

Executive Summary	3
Water Tanks.....	3
Generators.....	4
Hygiene Kits.....	4
Health.....	5
1. Key Results	6
1.1 As a family, how much water per day did you use prior to the war?	6
1.2 As a family, how much water per day do you have now?	6
1.3 Did the provision of a water tank improve your situation?	6
1.3a If yes how?.....	6
1.4 How many times a week did you use a generator?.....	7
1.5 Did the provision of a generator improve your situation?	7
1.5a If yes how?.....	7
1.6 Before you received a hygiene kit, was it difficult to maintain good personal and domestic hygiene?	7
1.7 After receiving a hygiene kit, were you able to maintain good personal and domestic hygiene?	7
1.7a How did the hygiene kit help?.....	7
1.7b What part or parts of the hygiene kit were most useful?	8
1.8 Has there been any increase in diarrhoea among your family after the war?.....	8
1.8a If yes, has the diarrhoea decreased after receiving after receiving the hygiene kits, generators, and water tanks?	8
1.9 Has there been any other diseases such as typhoid fever, hepatitis, polio, worms etc?	8
1.9a If yes, have the distributions of water tanks, generators, and hygiene kits reduced the incidence of these diseases?.....	8
2.0 Methodology	13
Target Population	13
Sample Survey	13
Statistical Unit	13
Sampling Unit.....	13
Levels of Sampling	13
Standard Error	13
Precision and Confidence Intervals	13
Sample Size Calculations for a Simple Random Survey.....	13
Sampling Rate	14
Bias	14
Staff Training.....	14
Annex 1 - Questionnaire.....	15
Annex 2 – Survey schedule and random selections sheet	16

Executive Summary

Background

In response to the recent conflict between Israel and Lebanon, IRC begun a short-term quick impact project to address the most pressing water related needs of villages in Marjayoun and Hasbaiya Cazas.

The villages comprised the following:

Mohafaza name	Kadaa name	Village name	P-code	Village latitude	Village longitude
Nabatyeh	Marjeyoun	Majdel Silim	LBN43023	33.22169445	35.46359448
Nabatyeh	Marjeyoun	Qabrikha	LBN43032	33.24737033	35.46310479
Nabatyeh	Marjeyoun	Souane	LBN43040	33.23395831	35.43672503
Nabatyeh	Marjeyoun	Touline	LBN43043	33.24912851	35.43823019
Nabatyeh	Hasbeya	Kfar Chouba	LBN42021	33.32801669	35.69133341

The main activities consisted of the distribution of 2,000 litre household water tanks, 5kVA generators for household use and 2 month duration household hygiene kits.

The results detailed below are an evaluation of the impact of these activities.

Water Tanks

Water consumption before the war stood at **201 litres per person per day**, but has since increased to **211 litres per person per day**.

In focus groups, women stated that they had between 111 and 333 litres per person per day prior to the war and that this volume is currently the same, but their need is now greater as they have more people in their homes, and require more water for cleaning due to the dust caused by the clearing of destroyed households.

Seventy-seven percent of those who received water tanks said it improved their situation mainly by improving access to water, reducing the time and effort taken to collect water and by saving the household money that would have been used to replace the water tank. People stated that the tanks also reduced the contamination of their sub-surface tanks, improved hygiene conditions in the home, and were useful for agriculture.

Focus groups revealed that women felt the provision of water tanks had been helpful since it has increased access to water.

“Without the tanks, water had to be collected manually, which was difficult and needed additional people to assist us. Using buckets to collect water also caused some contamination of the water and led to sickness”.

Some women also stated that the provision of tanks had saved them money.

Sixty-eight percent of those who stated that the water tank did not improve their situation, were not using their tanks at the time (**15% of the total population had not connected their tanks¹**).

¹ In Qabrikah and Majdel Salim tank distribution finished 3 days before the survey was concluded and thus some households may not have had sufficient time to install the water tanks.

Focus groups confirmed that some households had not yet connected their water tanks.

Generators

The average number of times a 5kVA generator was used by each household per week was **3.7**.

Focus group discussion indicated some households had used generators and felt them to be useful, however people also felt that they had arrived too late, since electricity had been re-established shortly after the generators were delivered. In some areas the national electricity is not regular so the generators are still be used, while in other areas the generators have now been put to public use in Mosques, schools and clinics. In one village, women felt that some households had kept generators too long, or that generators had not been shared equitably by the municipality.

Twenty-two percent of households had used an IRC generator, while **24%** of households questioned had their own generators and did not need assistance.

One-hundred percent of those households that used an IRC generator stated it had helped their situation by allowing them to pump water to their roof tanks.

Those women in the focus group who had used a generator stated that they had been useful, but many women who did not use them felt aggrieved.

Hygiene Kits

Eighty percent of households stated it was difficult to maintain good personal and domestic hygiene after the war, but after receiving IRC hygiene kits, **98.5%** were able to maintain adequate hygiene standards. Insufficient quantity of hygiene items was the reason given by the **1.5%** who stated that the hygiene kits did not enable the household to maintain good personal and domestic hygiene.

All focus groups agreed it was difficult to maintain good hygiene after the war due to a lack of money to buy materials and because it was difficult to buy benzene to get to other markets.

Sixteen percent of households did not receive hygiene kits².

Hygiene kits were deemed useful because they provided materials that were not available locally after the war and or because they had no access to markets in other villages, had no income with which to purchase hygiene related items and needed extra hygiene materials due to the high levels of dust caused by the clearing of destroyed buildings.

Focus groups confirmed that hygiene kits were useful since it allowed good hygiene standards to be maintained, with the exception of one village, Majdel Salim where they

² Hygiene kits were not necessarily distributed by the Municipality to the same families that received water tanks.

felt the kits contained too few materials to be of any use. In this case, it was discovered that the municipality split the kits in order to distribute something to every household.

Seventy percent of the population found the whole kit to be useful, while the remainder stated that soap, laundry powder, washcloths, and dishwashing liquid were most beneficial.

In focus groups, women stated that soap, laundry detergent, buckets, washbasins, and sanitary pads were the most useful items in the kit. Some women stated that girls had had to cut towels into strips to use as improvised sanitary pads before the hygiene kits were distributed.

Health

When asked if there had been an increase in diarrhoea after the war **54.8% of households stated yes**, while **45.2% said no**.

For those that had seen an increase in diarrhoea, **76%** said the provision of hygiene materials, water tanks, and generators had lead to a reduction in diarrhoea, while **13%** said it had not. **Six point five percent** did not know, and **4.5%** had not yet used any of the IRC distributed materials so could not effectively measure an impact.

Focus groups unanimously confirmed an increase in diarrhoea after the war with a subsequent reduction after the distribution of water tanks, hygiene kits, and generators.

When ask about other non-diarrhoeal faecal-oral diseases, **38%** of households stated there had been an increase in these diseases, while **63%** stated there had not.

For those that had seen an increase, **72%** said that the incidence of these diseases had decreased with the provision of water tanks, hygiene kits and generators, while **19%** stated that the incidence had not decreased. **Nine percent did not know**.

Again, focus groups confirmed that there had been outbreaks of other non-diarrhoeal faecal-oral diseases, which have reduced in number since the distribution of water tanks, hygiene kits, and generators.

1. Key Results

Questionnaire

1.1 As a family, how much water per day did you use prior to the war?

An average of 1,210 litres per family per day (201 litres per person per day for an average family of 6 persons³) was calculated.

1.2 As a family, how much water per day do you have now?

An average of 1,267 litres per family per day (211 litres per person per day) was calculated.

1.3 Did the provision of a water tank improve your situation?

Yes: 77.3%
No: 20.0%
Don't know: 2.6%

1.3a If yes how?

Improved access to water: 37%
Improved access to water, saved time and effort: 17%
Improved access to water, saved money: 14%
Improved access to water, saved time and effort, saved money: 8%
Improved access to water, reduced contamination: 8%
Improved access to water, improved hygiene: 6%
Improved access to water, agriculture, reduced contamination, and improved hygiene: 2%
Improved access to water, saved time and effort, improved hygiene: 2%
Improved access to water and agriculture: 2%
For agriculture: 2%
Saved money: 2%

For those that stated the tanks did not improve their situation:

Not yet using their water tanks: 68%
The remaining 32% gave their tanks to family members, did not experience any hardship as they had only recently returned, had a tank already or were living with relatives.

³ Average family sized calculated from distribution lists

1.4 How many times a week did you use a generator?

The average number of times a generator was used by each household per week was 3.7.

22% of households used an IRC donated generator⁴. This equates to 1 generator shared by 22 households.

24% of households questioned had their own generators

1.5 Did the provision of a generator improve your situation?

Yes: 100%

1.5a If yes how?

100% of those who stated that the generators had improved their situation said it helped them to pump water from sub-surface tanks to roof tanks.

1.6 Before you received a hygiene kit, was it difficult to maintain good personal and domestic hygiene?

Yes:	80%
No:	4%
Did not receive a hygiene kit ⁵ :	16%

1.7 After receiving a hygiene kit, were you able to maintain good personal and domestic hygiene?

Yes: 98.5%
No: 1.5%

Insufficient quantity of items was the reason given by those who stated that the hygiene kits did not enable the household to maintain good personal and domestic hygiene.

1.7a How did the hygiene kit help?

By providing hygiene material, no availability of materials: 36.2%
By providing hygiene material, could not afford hygiene materials, no availability of materials: 26%
By providing hygiene material: 17.4%
By providing hygiene material, could not afford hygiene materials: 6%
By providing hygiene material, needed extra materials: 4.3%

⁴ Excluding households that have their own generators

By providing hygiene material, no availability of materials, need extra materials: 3.1%
Could not afford hygiene materials: 1.4%
No availability of materials: 1.4%
No availability of materials, needed extra materials: 1.4%
By providing hygiene material, better hygiene: 1.4%
By providing hygiene material, could not afford hygiene materials, no availability of materials, needed extra materials: 1.4%

1.7b What part or parts of the hygiene kit were most useful?

All of the kit: 70%
Various combinations of items from the kit: 25.8%
Laundry detergent: 1.4%
Anti-germ sanitizer: 1.4%
Sanitary pads: 1.4%

1.8 Has there been any increase in diarrhoea among your family after the war?

Yes: 54.8%
No: 45.2%

1.8a If yes, has the diarrhoea decreased after receiving after receiving the hygiene kits, generators, and water tanks?

Yes: 76%
No: 13%
Don't know: 6.5
Did not use any distributed material yet: 4.5%

1.9 Has there been any other diseases such as typhoid fever, hepatitis, polio, worms etc?

Yes: 38%
No: 63%

1.9a If yes, have the distributions of water tanks, generators, and hygiene kits reduced the incidence of these diseases?

Yes: 72%
No: 19%
Don't know: 9%

Focus Group Discussions

Focus group discussions were only conducted with women.

Kfar Shuba – 5 females

Prior to the war households had approximately 2,000 litres every 3 to 4 days (111 l/p/d to 83 l/p/d).

The amount of water households have now is more or less the same as before the war, but their need has increased. The removal of debris from destroyed buildings, and the new building work that is going on has meant that there is much more cleaning to do in the household. This is especially true where houses are located close to areas of destruction.

The provision of water tanks has been helpful since it has increased access to water. Without the tanks, water had to be collected manually, which was difficult and needed additional people to assist. Using buckets to collect water also caused some contamination of the water and led to sickness.

Some people have been using generators, while others have not. Although there is electricity now it regularly cuts out and then the generators are useful. For those that have they normally need 2 hours every 3 or 4 days to fill their tanks. Without the generators, people who do not have their own would be unable to fill their tanks.

Before we received hygiene kits, it was difficult to obtain materials as markets could not be accessed due to a lack of transportation.

After receiving the kits, there was an improvement in the health of children with less allergies because of better hygiene.

The kits helped with washing clothes and dishes and by providing soap for washing.

After the war there was an increase in disease and vomiting, especially for those who were displaced to schools.

The provision of water tanks, hygiene kits, and generators has helped keep water clean and decreased diseases.

After the war there were other diseases such as viruses from the dust and allergies, which affected children. Also coughing, colds and flu due to the change of water.

All these diseases reduced after the distribution of water tanks, hygiene kits, and generators.

Touline – 6 females

Prior to the war households had 2,000 litres per family per day (333 l/p/d).

The amount of water households have now is approximately the same as before the war.

The water tanks made it easier to collect water but some families have not yet connected their tanks. It also reduced the cost of buying new tanks and made it easier to use water.

Most families had their own generators but the municipality provided generators in public places such as the church, mosque and clinics. Those who had their own generators used them 2 or 3 times a day.

It was difficult to maintain good hygiene after the war due to a lack of money to buy materials but also to buy benzene to get to the markets.

The hygiene kits were very useful in providing materials for cleaning because it was difficult to travel and there was little money available.

Laundry detergents, sanitary pads, and garbage bags were the most useful parts of the kits.

There have been cases of diarrhoea among the children and this has been reduced with the use of soap and detol (disinfectant).

Souane – 8 females

Prior to the war smaller sized families had 2,000 litres every 4 days (<6 members), while larger families (>6 members) had 2,000 litres per day.

The amount of water in a household is the same now, but there are often more people in the household so the amount of water per person is less.

The provision of water tanks helped people as it reduced the cost of replacing their damaged tanks and provided easier access to water.

Generators were used 2 times per day to fill water tanks for large families, but although the generators were useful they arrived too late as there was already some supply of electricity in the village.

It was difficult to maintain good hygiene after the war, because buying the products was more difficult. The hygiene kits arrived at a time when most of the stores had run out of products and the materials in the home had been used up.

The buckets were the most useful part of the kits as many had been damaged in the war.

There had been increases in diarrhoea after the war and these have decreased when the hygiene kits arrived as they could do more cleaning and washing.

Other diseases such as fever were seen after the war and these have reduced with better cleaning and washing.

Majdel Salim – 8 females

Most women used approximately 800 litres in their household per day (133 l/p/d) before the war.

Currently households are using 1,200 litres per day (200 l/p/d) as there is a greater need for cleaning due to all the dust from destroyed houses and new construction. Although they are using more water there is less water available because there is less water coming available in their sub-surface tanks.

The provision of water tanks for the roof has been beneficial because they previously had to collect water using jugs and buckets from their sub-surface tanks.

Generators were used by some households twice a week, but only one week before electricity was resumed. Some households did not share the generators that were to be shared among villagers.

As a group the generators have not helped much except for those who did get to use them for pumping water to their roof tanks.

Before they received the hygiene kits it was difficult to maintain good hygiene standards as they could not move out of their village as they had no benzene and had no money to buy products.

The hygiene kits were not so useful because the quantity of materials was insufficient and some households sold their kits to shop owners to get money.

The most useful parts of the kits were the sanitary pads and the washing detergents.

There had been an increase in diarrhoea, especially among children after the war.

Diarrhoea had decreased after the provision of tanks, generators and hygiene kits mainly because of increased cleaning.

Other diseases such as skin allergies developed after the war and these also vanished after the village received hygiene kits, generators and water tanks.

The distribution of materials was not fair as people in need were not provided with aid.

Qabrikah – 10 females

Prior to the war large households (>6) would use 2,000 litres per day while smaller households (<6) would use 1,000 litre per day.

Currently most households use the same amount of water but generally have less per person because there are more people in each household.

The provision of water tanks helped households since water had to be drawn manually from their sub-surface tanks. Some people connected taps directly to their sub-surface tanks and collected water with buckets.

Some households had not heard about the generators that could be use to pump water, so some families bought their own generators, while others shared their neighbours generators. Those people who did know about the generators did not ask to use them.

Before receiving the hygiene kits, some people were using diesel to clean the floor, while others used less water because they did not have the materials to clean properly. One girl cut a towel into strips and used it as a substitute for sanitary pads. It was also difficult to purchase new hygiene materials as the stores were closed and there were no means of transportation.

The provision of the hygiene kits helped to ensure proper personal and domestic hygiene was maintained.

The most important parts of the kit were the buckets, the sanitary pads, and the plastic basins.

Since the war there has been an increase in diarrhoea and this decreased after the provision of water tanks and hygiene kits.

Other diseases such as skin problems, eye infections and stomach aches also increased after the war but reduced significantly with aid.

2.0 Methodology

Target Population

The target population are beneficiaries of the IRC/AFDC Southern Lebanese Returnee Program.

NFI materials provided under the activities of the program were distributed by local Municipalities who also identified and selected beneficiaries according to basic guidelines provided to them by IRC. The distribution list for water tanks was used as the basis for a sample since there was stronger likelihood that these households would also receive hygiene kits and access generators for pumping water.

Sample Survey

Since a definitive distribution list was available (660 households receiving water tanks), it was possible to employ a simple random sample.

Statistical Unit

In this case, the statistical unit are households

Sampling Unit

The sampling unit are households.

Levels of Sampling

Only one level (first-level) of sampling was required.

Standard Error

The standard error was set to 5% (95% confidence level).

Precision and Confidence Intervals

A confidence interval (precision) of 10% was used with reference to the 5% standard error previously discussed. A higher CI was chosen due to limited resources. In addition, a CI of 10% was felt sufficient to establish the impact of the program as opposed to establishing baseline data that may need to be more precise.

Sample Size Calculations for a Simple Random Survey⁶

$$n = \frac{t^2 \cdot p \cdot q}{\text{margin of error}^2}$$

⁶ (WHO, 1983)

$$d^2$$

where:

n = first estimate of sample size

t = confidence (for 95% use 1.96)

d = precision (0.10)

$p = 0.5$

$q = 1 - p$

thus $n = 96$ which is greater than 10% of the total target population (660), therefore the following correction formula was used:

$$n_f = \frac{n}{1 - n/N}$$

Thus $n_f = 84$

Sampling Rate

Samples were chosen randomly using a random number generator in excel.

Bias

All selected households were requested to stay at home on the days of the survey. Enumerators were male and female, fluent in Arabic and of Lebanese nationality. Samples were random, with each statistical unit having an equal opportunity of selection and their selection being independent of the selection of any other statistical unit.

If selected households were found to be empty during the survey, the next closest household would be selected.

In Touloun, it was discovered that the guide had not selected the households from the sample list, selecting instead homes that were easily accessible, it being Ramadan at the time. Therefore it cannot be said that the part of the survey pertaining to this village will contain random unbiased results.

Staff Training

The enumerators consisted of 7 AFDC volunteers.

Annex 1 - Questionnaire

Enumerators Name: _____

Date: ____ / 10 / 06 _____

Village: _____

1 As a family how much water per day did you use prior to the war? _____ litres

2 As a family how much water per day do you have now? _____ litres

3 Did the provision of a water tank improve your situation? Yes No Don't know

3a If yes how?

4 How many times a week did you use a generator? _____ times

5 Did the provision of a generator improve your situation? Yes No Don't know

5a If yes how?

6 Before you received a hygiene kit was it difficult to maintain good personal and domestic hygiene? Yes No Don't know

7 After receiving the hygiene kit were you able to maintain good personal and domestic hygiene? Yes No Don't know

7a How did the hygiene kit help?

7b What part or parts of the hygiene kit was most useful?

Soap	wash cloths	dish washing pads	Sanitary pads
	wash		
anti germ lotion	basin	bleach	Garbage bags
detergent	dishwashing soap	bucket	

8 Has there been any increase in diarrhoea among your family after the war? Yes No Don't know

8a If yes, has the diarrhoea decreased after receiving the hygiene kits, generators and water tanks? Yes No Don't know

9 Have there been any other diseases such as: • Typhoid fever • Giardia • Dysentery • Cholera • Hepatitis • Polio • Worms

9a If yes, have the distributions of tanks, generators etc. reduced the incidence of these diseases? Yes No Don't know

Annex 2 – Survey schedule and random selections sheet

Random List for Simple Survey in Lebanon

Number	Location	Survey Number	Number	Location	Survey Number
1	Kfar Shuba	3	43	Majdel Salim	368
2	Kfar Shuba	6	44	Majdel Salim	382
3	Kfar Shuba	24	45	Majdel Salim	383
4	Kfar Shuba	28	46	Majdel Salim	385
5	Kfar Shuba	33	47	Majdel Salim	406
6	Kfar Shuba	34	48	Majdel Salim	417
7	Kfar Shuba	56	49	Majdel Salim	418
8	Kfar Shuba	57	50	Majdel Salim	437
9	Touline	69	51	Majdel Salim	439
10	Touline	70	52	Majdel Salim	441
11	Touline	72	53	Majdel Salim	466
12	Touline	82	54	Majdel Salim	467
13	Touline	88	55	Majdel Salim	471
14	Touline	90	56	Majdel Salim	476
15	Touline	98	57	Majdel Salim	484
16	Touline	102	58	Majdel Salim	487
17	Touline	104	59	Majdel Salim	498
18	Touline	105	60	Majdel Salim	505
19	Touline	106	61	Majdel Salim	510
20	Touline	126	62	Qabrikha	523
21	Touline	133	63	Qabrikha	529
22	Touline	174	64	Qabrikha	531
23	Souane	192	65	Qabrikha	534
24	Souane	198	66	Qabrikha	538
25	Souane	201	67	Qabrikha	540
26	Souane	211	68	Qabrikha	543
27	Souane	223	69	Qabrikha	546
28	Souane	227	70	Qabrikha	547
29	Souane	240	71	Qabrikha	555
30	Souane	253	72	Qabrikha	560
31	Souane	259	73	Qabrikha	573
32	Souane	274	74	Qabrikha	614
33	Souane	276	75	Qabrikha	624
34	Souane	277	76	Qabrikha	628
35	Majdel Salim	290	77	Qabrikha	634
36	Majdel Salim	294	78	Qabrikha	639
37	Majdel Salim	298	79	Qabrikha	641
38	Majdel Salim	321	80	Qabrikha	642
39	Majdel Salim	335	81	Qabrikha	649
40	Majdel Salim	341	82	Qabrikha	652
41	Majdel Salim	359	83	Qabrikha	653
42	Majdel Salim	360	84	Qabrikha	660

Day	Date	Location	Number of Questionnaires
Day 1	Tue 3rd Oct	Kfar Shuba	8
Day 2	Thur 5th Oct	Touline and Souane	26
Day 3	Sun 8th Oct	Majdel Salim	27
Day 4	Tue 10th Oct	Qabrikha	23