

Project funded by:



Humanitarian Aid Department of the European
Commission (ECHO)



Oxfam-GB

**In Coordination With:
Palestinian Water Authority (PWA)**

**Water and Sanitation, Hygiene (WaSH)
Monitoring Program**
Impact of the Current Crisis in the West Bank and Gaza Strip
Survey Report # 29
May, 2006

For more information, please call:

Eng. Basema Bashir/ PHG

Tel. 02/2966315 or 02/2966316

E-mail: bashir@phg.org

Website: <http://www.phg.org/campaign>

Introduction

This is the fourth report prepared by the WaSH Monitoring Program during this phase. The first three reports distributed previously included information about 92 communities in total. The current report includes information about 53 communities that were surveyed during the past three weeks.

In this report, collected data and information, as was done in the previous reports, are presented in different tables where each table reflects at least one of the major problems affecting the WaSH situation in these communities. This report includes summary of the information for communities surveyed during the past three weeks of May 2006; the total number of these communities is 53. The tables include summary of the collected data and major findings and comments on these tables are also provided.

Table 1: Surveyed Communities

This table includes communities that were surveyed during the past three weeks of May. Basic data of these communities is also presented in this table.

Table 2: Major WaSH situation indicators in the surveyed communities.

Data presented in this table was recently added to the used questionnaires. It includes major important indicators that reflect difficulties and major problems affecting these communities.

These indicators are as follows:

1. **Households with year-round access to improved water source (%) and Households with year-round access to unimproved water source (%):** Where **Improved water source** means Household connection, Public standpipe, Borehole, Protected dug well, protected spring, and **unimproved water sources** include: Unprotected well, unprotected spring, Vendor-provided water (Tanker truck water).
2. **Water supplied per capita per day (liter):** estimated quantity of water supplied per each person per day.
3. **Wastewater Network Coverage (%):** percentage of households connected to wastewater network.
4. **Connection to Cesspits or Septic Tank (%):** percentage of households connected to cesspits or septic tanks.
5. **Availability of Solid waste Collection System (%):** percentage of coverage of the wastewater collection system.
6. **Population Suffer from Water Born Diseases (%):** percentage of population affected by water related diseases.
7. **Water Supply Facilities Operated and Maintained by community (%):** percentage of the water supply facilities operated and maintained by the local council in the community.
8. **Cost Recovery for Water Supply Services (%):** percentage of financial coverage of the water supply services provided by the local council; this is reflected in collection of cost of water supply through payment of water bills by the households.
9. **Unaccounted for Water within Water Supply System (%):** percentage of quantity of water lost before reaching the consumer.
10. **Monthly Household Income Spent on Water Supply (%):** estimated percentage from the household income spent on water supply.
11. **Monthly Household Income Spent on Sanitation (%):** estimated percentage from the household income spent on sanitation services, including cost of wastewater vacuum tankers.
12. **Major Community Problems and Needs:** summarizes major current problems and needs of the community according to the local council.

Table 3: Relative change in tankers water price

This table presents the estimated price of one cubic meter transported through tankers in New Israeli Skekels (NIS), which is about US\$ 0.22. Price paid per cubic meter now (i.e. during the current crisis) and price paid before the current Intifada are presented; relative percentage of change in the price of one cubic meter is estimated in the table.

Table 4: Effects of fixed checkpoints on communities

In this table, name as well as weight of effect (where 2 is for high effect, i.e. complete block of the road; 1 is for intermediate effect, i.e. delays for several hours) of the fixed checkpoints are presented. Effects on tankers water supply, on maintenance team access, and on Public Health Centers (PHC) access are evaluated and presented in the table.

Table 5: Effects of mobile checkpoints, earth mounds, and curfew on communities.

Effects of mobile/ flying checkpoints, earth mounds, curfew, and the Wall on surveyed communities are presented, where and as was presented for the fixed checkpoints: 2 is for high effect, i.e. complete block of the road; 1 is for intermediate effect, i.e. delays for several hours.

Some of the urgent problems and needs in some Palestinian communities reported during the past period include:

1. During the first half of May 2006, water supply was completely cut off by the Israeli Mekorot Company to the following Palestinian communities: Beit 'Anan, Al Qubeiba, Qatanna, Beit Duqqu, Beit Ijza and Kharayib Umm al Lahim in Jerusalem Governorate. Cut off of water was during the construction of the Wall in that area. During that period, these communities suffered a chronic shortage of water. Total population in these communities is about 18,000 person. It is worth mentioning that main pipes of the water supply are located within the boundaries of the nearby Har Adar Israeli settlement.
2. Residents of Bruqin community in Salfit Governorate have been and are still suffering from the problem directly connected to wastewater flow coming directly from the nearby settlement, namely Ariel settlement which is considered the biggest settlement in the West Bank. Wastewater flow includes also industrial wastewater coming from the nearby Israeli Barkan industrial area. The local council of Bruqin community has been trying to attract the attention of all international and local organizations working in the area to support them in finding a suitable solution to this none-ending problem that is affecting directly the health, agricultural, and environmental situation in the community. According the head of the local council, this wastewater is coming from the northern side of the community and it has a direct effect on polluting water and the environment in addition to the very bad smells spreading in the area. With the start of summer season, it is expected that the effects of this problem will be even more in the coming period.
3. Palestinian Communities in the West Bank and Gaza Strip not connected directly to a wastewater network are threatened to face a chronic hygiene and health crisis in the coming few weeks if no direct and urgent solution is found to the wastewater flows in most of these communities, especially in the southern part of the Strip. The prevailing general situation in the area and more specifically the financial problem related to payment of salaries to the Palestinian Authority employees and the closure of main entrances to the Gaza Strip are all supporting in duplication of these problems. People are unable to evacuate cesspits and septic tanks used for collection of wastewater and therefore, causing it to flow in the streets of these communities. This problem is expected to be even more harsh especially and taking into consideration that summer season started which will help in spreading of insects and the related diseases, therefore, reflecting its impacts directly on the health and hygiene situation of these communities in addition to its effect in polluting groundwater.

4. The closure and siege policy of the Israeli occupation on the Gaza Strip is affecting all sectors and all aspects of life in the Strip. The WaSH sector was of course one of the sectors directly affected by this policy where municipalities and the coastal utility are directly affected especially in relation to shortage in spare parts for maintenance work. This is in addition to the direct destruction and damage to the water infrastructure caused by the Israeli attacks especially in the northern part of the Strip.

Table 1: Surveyed Communities

No.	Community ID	Community Name	Governorate	Population 2006	Survey Date
1	10245	Zabda	Jenin	898	30/4/2006
2	10265	Ya'bad	Jenin	15598	30/4/2006
3	10340	Qabatiya	Jenin	21290	2/5/2006
4	10465	Kafr Ra'i	Jenin	8453	9/5/2006
5	10500	'Ajja	Jenin	5564	10/5/2006
6	10515	Ar Rama	Jenin	975	9/5/2006
7	10520	Meithalun	Jenin	7573	10/5/2006
8	10565	Al Jadida	Jenin	5274	6/5/2006
9	10600	Siris	Jenin	5452	8/5/2006
10	50560	Al 'Aqaba	Tubas		6/5/2006
11	100290	Qaffin	Tulkarem	9446	4/5/2006
12	100555	Al Masqufa	Tulkarem	229	30/4/2006
13	150695	Yasid	Nablus	2476	6/5/2006
14	150860	Beit Iba	Nablus	3532	10/5/2006
15	150950	Sarra	Nablus	3126	6/5/2006
16	150975	'Iraq Burin	Nablus	833	30/4/2006
17	150990	Tell	Nablus	5123	30/4/2006
18	151000	Beit Dajan	Nablus	3879	9/5/109
19	151080	Burin	Nablus	2782	11/5/2006
20	151090	Beit Furik	Nablus	11245	9/5/2006
21	151095	'Asira al Qibliya	Nablus	2471	7/5/2006
22	151135	'Awarta	Nablus	6282	9/5/2006
23	151185	Huwwara	Nablus	6266	10/5/2006
24	151365	Qusra	Nablus	4801	8/5/2006
25	151375	Talfit	Nablus	3233	10/5/2006
26	151385	Majdal Bani Fadil	Nablus	2361	9/5/2006
27	151445	Duma	Nablus	2400	9/5/2006
28	201120	Wadi ar Rasha	Qalqiliya		7/5/2006
29	301495	Al Lubban al Gharbi	Ramallah	1632	4/5/2006
30	301505	Deir as Sudan	Ramallah	2355	14/5/2006
31	301515	Rantis	Ramallah	3128	4/5/2006
32	301550	Umm Safa	Ramallah	779	14/5/2006
33	301560	Deir Nidham	Ramallah	983	14/5/2006
34	301565	'Atara	Ramallah	2540	14/5/2006
35	301570	Deir Abu Mash'al	Ramallah	3719	14/5/2006

No.	Community ID	Community Name	Governorate	Population 2006	Survey Date
36	301600	Kobar	Ramallah	3968	8/4/2006
37	301620	Beitillu	Ramallah	3333	9/5/2006
38	301630	Jammala	Ramallah	1571	9/5/2006
39	301655	Deir 'Ammar	Ramallah	2610	9/5/2006
40	301725	Kharbatha Bani Harith	Ramallah	3142	6/5/2006
41	301860	Beit 'Ur al Fauqa	Ramallah	1002	3/5/2006
42	401950	Beit 'Anan	Jerusalem	4610	9/5/2006
43	401980	Al Qubeiba	Jerusalem	2236	11/5/2006
44	401995	Biddu	Jerusalem	6884	9/5/2006
45	402015	Qatanna	Jerusalem	8103	7/5/2006
46	402020	Beit Surik	Jerusalem	4127	8/5/2006
47	402025	Beit Iksa	Jerusalem	1697	7/5/2006
48	502620	Sa'ir	Hebron	14536	27/4/2006
49	502635	Ash Shuyukh	Hebron	7710	27/4/2005
50	502655	Beit Kahil	Hebron	6333	27/4/2006
51	502685	Idhna	Hebron	20351	11/5/2006
52	502750	Taffuh	Hebron	10602	4/5/2006
53	502835	Beit 'Awwa	Hebron	9022	13/5/2006

Table 2: Major WaSH situation indicators in the surveyed communities.

No.	Community ID	Community Name	Governorate	Households with year-round access to improved water source %	Households with year-round access to unimproved water source %	Water supplied per capita per day (liter)	Wastewater Network Coverage %	Connection to Cesspits or Septic Tank %	Availability of Solid waste Collection System %	Population Suffer from Water Born Diseases %	Water Supply Facilities Operated and Maintained by Council %	Cost Recovery for Water Supply Services %	Unaccounted for Water within Water Supply System %	Cost Recovery for Water Supply Services %	Unaccounted for Water within Water Supply System %	Community Needs and Comments
1	10245	Zabda	Jenin	0	100	30	0	100	100	20				12	2	The community has no water network. Major source of water is tankers (850 m ³ /month) and cisterns (250 m ³ /month). Major needs in the community include water network and household cisterns.
2	10265	Ya'bad	Jenin	80	20	50		100	100	5	100	25	100	6	2	Major source of water in the community is agricultural well owned by the municipality. Major needs in the community include extension of the water network and construction of a distribution reservoir.
3	10340	Qabatiya	Jenin	80	20	80		100	100	7	100	20	40	5	2	Major needs in the community include extension of the water network and replacement of the household water meters.
4	10465	Kafr Ra'i	Jenin	50	50	50	0	100	100	6	100	10	45	5	2	Main sources of water are Mekorot company and tankers. About 200 households in the communities are unable to pay water bills. Major need in the community is extension and rehabilitation of the water network.

No.	Community ID	Community Name	Governorate	Households with year-round access to improved water source %	Households with year-round access to unimproved water source %	Water supplied per capita per day (liter)	Wastewater Network Coverage %	Connection to Cesspits or Septic Tank %	Availability of Solid waste Collection System %	Population Suffer from Water Born Diseases %	Water Supply Facilities Operated and Maintained by Council %	Cost Recovery for Water Supply Services %	Unaccounted for Water within Water Supply System %	Cost Recovery for Water Supply Services %	Unaccounted for Water within Water Supply System %	Community Needs and Comments
5	10500	'Ajja	Jenin	60	40	43	10	100	100	8	100	0	25	6	3	Main sources of water are Mekorot company (12,000 m ³ /month), tankers (1500 m ³ /month) and cisterns (500 m ³ /month). About 250 households in the community are unable to pay water bills. One of the major needs in the community is extension and rehabilitation of the water network.
6	10515	Ar Rama	Jenin	80	20	60	0	100	100	5	100	60	30	4	2	Major water supplies in the community are Mekorot company (1600 m ³ /month) and cisterns (200 m ³ /month).Major needs in the community: 1. Rehabilitation of the water network 2. Wastewater network
7	10520	Meithalun	Jenin	10	90	40	0	100	100	12	80			6	3	Main sources of water in the community are tankers (8000 m ³ /month) and cisterns (1000 m ³ /month).Major needs in the community: 1. Water network 2. Household cisterns 3. Solution for the water quality problem in places where water is contaminated by wastewater coming from cesspits.
8	10565	Al Jadida	Jenin	0	100	35	0	100	100	20	0	0		8	2	Main sources of water in the community

No.	Community ID	Community Name	Governorate	Households with year-round access to improved water source %	Households with year-round access to unimproved water source %	Water supplied per capita per day (liter)	Wastewater Network Coverage %	Connection to Cesspits or Septic Tank %	Availability of Solid waste Collection System %	Population Suffer from Water Born Diseases %	Water Supply Facilities Operated and Maintained by Council %	Cost Recovery for Water Supply Services %	Unaccounted for Water within Water Supply System %	Cost Recovery for Water Supply Services %	Unaccounted for Water within Water Supply System %	Community Needs and Comments
9	10600	Siris	Jenin	0	100	42	0	100	100	25	60	0		9		are tankers (5400 m ³ /month) and cisterns (600 m ³ /month). Major needs in the community : 1. Water network 2. Household cisterns 3. Solution for the water quality problem
10	50560	Al 'Aqaba	Tubas	0	100	40	0	100	100	20				10	2	Main sources of water in the community are tankers (6000 m ³ /month) and cisterns (500 m ³ /month). Major needs in the community: 1. Water network 2. Household cisterns 3. Solution for the water quality problem where high percentage of people is affected with water related diseases.
11	100290	Qaffin	Tulkarem	60	40	80	0	100	100	10	100	30	35	5	5	The community has a water network that serves about 1200 household out

No.	Community ID	Community Name	Governorate	Households with year-round access to improved water source %	Households with year-round access to unimproved water source %	Water supplied per capita per day (liter)	Wastewater Network Coverage %	Connection to Cesspits or Septic Tank %	Availability of Solid waste Collection System %	Population Suffer from Water Born Diseases %	Water Supply Facilities Operated and Maintained by Council %	Cost Recovery for Water Supply Services %	Unaccounted for Water within Water Supply System %	Cost Recovery for Water Supply Services %	Unaccounted for Water within Water Supply System %	Community Needs and Comments
12	100555	Al Masqufa	Tulkarem	50	50	50	0	100	100	5	40	100	30	12	4	<p>of the 1700 households in the community. The other about 500 households (about 5% of the population) are little far from the community and the main source of water for them is tankers and cisterns. About 25% of the population is connected to an old network and water supply through it is not continuous. In addition, there are about 40 agricultural connections that supply about 100 m³/month for each connection; the total area served by these connections is about 50 dunums.</p> <p>The community needs to connect those households not connected to the network as soon as possible.</p> <p>Main source of water in the community is through Tulkarem municipality in addition to other agricultural well that provide water through tankers (about 100 and 120 m³/month). About 130 m³/month are provided through cisterns. Currently, the water network is being extended to include households</p>

No.	Community ID	Community Name	Governorate	Households with year-round access to improved water source %	Households with year-round access to unimproved water source %	Water supplied per capita per day (liter)	Wastewater Network Coverage %	Connection to Cesspits or Septic Tank %	Availability of Solid waste Collection System %	Population Suffer from Water Born Diseases %	Water Supply Facilities Operated and Maintained by Council %	Cost Recovery for Water Supply Services %	Unaccounted for Water within Water Supply System %	Cost Recovery for Water Supply Services %	Unaccounted for Water within Water Supply System %	Community Needs and Comments
13	150695	Yasid	Nablus	0	100	40	0	100	100	25				8	3	that are not connected to the water network. Major part of the water supply is being used for domestic agriculture and livestock.
14	150860	Beit Iba	Nablus	100	0	70	30	70	100	2	100	80	35	8	4	Main source of water in the community is through tankers (3000 m ³ /month) and cisterns (1000 m ³ /month). Major needs in the community include water network and a source of water, and household cisterns.
15	150950	Sarra	Nablus	0	100	45	50	50	100	4				10	4	Main source of water is through Mekorot company that provides about 12,000 m ³ /month. The available water network is old and in need of rehabilitation and extension to include new areas.
																Main sources of water are tankers (2400 m ³ /month) that get water from a Mekorot controlled filling point, and cisterns (2000 m ³ /month). Chlorine tablets are used for cisterns and they are brought by the local council that gets it from the Ministry of Health.

No.	Community ID	Community Name	Governorate	Households with year-round access to improved water source %	Households with year-round access to unimproved water source %	Water supplied per capita per day (liter)	Wastewater Network Coverage %	Connection to Cesspits or Septic Tank %	Availability of Solid waste Collection System %	Population Suffer from Water Born Diseases %	Water Supply Facilities Operated and Maintained by Council %	Cost Recovery for Water Supply Services %	Unaccounted for Water within Water Supply System %	Cost Recovery for Water Supply Services %	Unaccounted for Water within Water Supply System %	Community Needs and Comments
																Major needs in the community include: 1. Water network 2. Distribution reservoir 3. Households cisterns
16	150975	Iraq Burin	Nablus	0	100	40	0	100	100	6				11	4	Main source of water in the community is tankers that provide about 1200 m ³ /month of water from a Mekorot filling point at Sarra and from the local Burin Spring, in addition to about 600 m ³ /month provided through cisterns. Chlorination tablets are provided by the Ministry of Health through the local council.
17	150990	Tell	Nablus	0	100	40	0	100	80	7				9	5	Main source of water for the community is a Mekorot filling point in Sarra that provide about 7500 m ³ /month. About 3500 m ³ /month are provided through cisterns. Chlorination tablets are used for cisterns and they are provided by the Ministry of Health through the local council. Local springs in the community are contaminated and are used only for agricultural purpose.
17	151000	Beit Dajan	Nablus	0	100	40	0	100	100	2				10	5	Main sources of water are tankers that bring water from Beit Furik/ Beit Dajan

No.	Community ID	Community Name	Governorate	Households with year-round access to improved water source %	Households with year-round access to unimproved water source %	Water supplied per capita per day (liter)	Wastewater Network Coverage %	Connection to Cesspits or Septic Tank %	Availability of Solid waste Collection System %	Population Suffer from Water Born Diseases %	Water Supply Facilities Operated and Maintained by Council %	Cost Recovery for Water Supply Services %	Unaccounted for Water within Water Supply System %	Cost Recovery for Water Supply Services %	Unaccounted for Water within Water Supply System %	Community Needs and Comments
																groundwater well (about 6600 m ³ /month) and about 1200 m ³ /month are provided through cisterns. A chlorination unit is available on the groundwater well used by tankers The community needs a water network and a distribution reservoir.
19	151080	Burin	Nablus	0	100	40	0	100	100	70				12	4	The community has no water network. Main sources of water are tankers that bring water from local spring (about 1350 m ³ /month) and Mekorot filling point in Howwara, in addition to water provided from cisterns (1500 m ³ /month). Chlorine tablets are used for cisterns that are brought from the Ministry of Health through the local councils. The local spring being used is polluted from seepage of wastewater coming from cesspits.
20	151090	Beit Furik	Nablus	0	100	35	0	100	100	3				11	4	Main sources of water are tankers that provide (14000 m ³ /month) transported from Beit Dajan/ Beit Furik groundwater well, and about 3000 m ³ /month are provided through cisterns A chlorination unit is available on the well used by

No.	Community ID	Community Name	Governorate	Households with year-round access to improved water source %	Households with year-round access to unimproved water source %	Water supplied per capita per day (liter)	Wastewater Network Coverage %	Connection to Cesspits or Septic Tank %	Availability of Solid waste Collection System %	Population Suffer from Water Born Diseases %	Water Supply Facilities Operated and Maintained by Council %	Cost Recovery for Water Supply Services %	Unaccounted for Water within Water Supply System %	Cost Recovery for Water Supply Services %	Unaccounted for Water within Water Supply System %	Community Needs and Comments
21	151095	'Asira al Qibliya	Nablus	0	100	40	0	100	80	3				12	5	tankers. Cisterns are needed in the community.
22	151135	'Awarta	Nablus	0	100	35	0	100	100	4				12	5	The main source of water is coming through tankers that transport water from Howwara Municipality (about 4000 m ³ /month). About 1100 m ³ /month are provided through cisterns. Livestock is considered a main source of income for the community and consumes about 40% of the water supply. Chlorine tablets are used for water in cisterns; the local council distributes these tablets that are brought from the Ministry of Health. The community is in bad need of a water source and hope to be linked to Rujeeb well that is under preparation now.
																Main sources of water for the community are tankers (6500 m ³ /month) and cisterns (3500 m ³ /month). Tankers bring water mainly from a Mekorot controlled filling point close to 'Awarta and another filling point is used especially during summer time that is close to Audalah; it takes each

No.	Community ID	Community Name	Governorate	Households with year-round access to improved water source %	Households with year-round access to unimproved water source %	Water supplied per capita per day (liter)	Wastewater Network Coverage %	Connection to Cesspits or Septic Tank %	Availability of Solid waste Collection System %	Population Suffer from Water Born Diseases %	Water Supply Facilities Operated and Maintained by Council %	Cost Recovery for Water Supply Services %	Unaccounted for Water within Water Supply System %	Cost Recovery for Water Supply Services %	Unaccounted for Water within Water Supply System %	Community Needs and Comments	
																	truck about 40 minutes to be filled. Tankered water is bought for 10 NIS/m ³ from private tankers but for 5 NIS/m ³ through the local council. Chlorine tablets are used for chlorination, which is brought from the Ministry of Health and distributed by the local council. More cisterns are needed in the community.
23	151185	Huwwara	Nablus	60	40	70	0	100	100	3	100	80	35	10	3	Main sources of water are Mekorot company (15000 m ³ /month) and about 2000 m ³ /month are provided through cisterns. About 350 households are not connected to the water network and are connected through plastic pipes. Major needs in the community include extending the water network to include the 350 households connected to the network with plastic pipes, in addition to rehabilitation of the available water network.	
24	151365	Qusra	Nablus	0	100	35	0	100	100	3				9	4	No water network is available in the community. Main sources of water are tankers that provide water from the Mekorot filling point in Qusra (5500	

No.	Community ID	Community Name	Governorate	Households with year-round access to improved water source %	Households with year-round access to unimproved water source %	Water supplied per capita per day (liter)	Wastewater Network Coverage %	Connection to Cesspits or Septic Tank %	Availability of Solid waste Collection System %	Population Suffer from Water Born Diseases %	Water Supply Facilities Operated and Maintained by Council %	Cost Recovery for Water Supply Services %	Unaccounted for Water within Water Supply System %	Cost Recovery for Water Supply Services %	Unaccounted for Water within Water Supply System %	Community Needs and Comments
25	151375	Talfit	Nablus	0	100	40	0	100	100	3				11	3	<p>m³/month) and the local Qusra spring (1000 m³/month), in addition to water coming from cisterns (3600 m³/month). Chlorination tablets are provided from the Ministry of Health for the local council and is used for chlorination of water in cisterns.</p> <p>Major needs in the community:</p> <ol style="list-style-type: none"> 1. Cisterns 2. Water network (license is available) 3. Rehabilitation of the main line connecting the local spring and reservoir, where water is transported through tankers. <p>The community has no water network. Main sources of water are tankers that transport water from a Mekorot company filling point (Jalouud) that provide about 2600 m3/monh, 500 m3/month are provided from a local spring, and about 2600 m3/month are provided through cisterns. Chlorine tablets are used for cisterns and they are provided by the Ministry of Health through the local council.</p>

No.	Community ID	Community Name	Governorate	Households with year-round access to improved water source %	Households with year-round access to unimproved water source %	Water supplied per capita per day (liter)	Wastewater Network Coverage %	Connection to Cesspits or Septic Tank %	Availability of Solid waste Collection System %	Population Suffer from Water Born Diseases %	Water Supply Facilities Operated and Maintained by Council %	Cost Recovery for Water Supply Services %	Unaccounted for Water within Water Supply System %	Cost Recovery for Water Supply Services %	Unaccounted for Water within Water Supply System %	Community Needs and Comments
26	151385	Majdal Bani Fadil	Nablus	0	100	35	0	100	100	4				11	4	Major needs in the community include cisterns especially for households that are difficult to reach (reached through dirt roads). The community has no water network and main source of water is cisterns (1500 m ³ /month) and tankers that bring water from a Mekorot controlled filling point (3500 m ³ /month). Chlorine tablets are used for chlorination of water in cisterns; tablets are distributed by the local council that bring it from he Ministry of Health. The community hopes to be linked with Rujeeb well which was developed recently.
27	151445	Duma	Nablus	0	100	40	0	100	100	4				11	3	The community has no water network. Main sources of water are tankers that provide about 2200 m ³ /month (Ein Samya well) and cisterns that provide about 2800 m ³ /month. Chlorine tablets provided by the Ministry of Health through the local council are used for chlorination of cisterns. Major needs in the community include cisterns.

No.	Community ID	Community Name	Governorate	Households with year-round access to improved water source %	Households with year-round access to unimproved water source %	Water supplied per capita per day (liter)	Wastewater Network Coverage %	Connection to Cesspits or Septic Tank %	Availability of Solid waste Collection System %	Population Suffer from Water Born Diseases %	Water Supply Facilities Operated and Maintained by Council %	Cost Recovery for Water Supply Services %	Unaccounted for Water within Water Supply System %	Cost Recovery for Water Supply Services %	Unaccounted for Water within Water Supply System %	Community Needs and Comments
28	201120	Wadi ar Rasha	Qalqiliya	100	0	80	0	100	100	4	100	100	20	8	4	Main source of water is Habla municipality that provides about 460 m ³ /month. Chlorination is being done by Habla municipality.
29	301495	Al Lubban al Gharbi	Ramallah	100	0	90	0	100	100	0	100	50	60	4	4	The community has very old water network and is in need of rehabilitation. People are not able to pay water bills because of the current difficult economic situation. Major needs: 1. Public Health Center (PHC) 2. Wastewater network 3. Distribution reservoir for the community 4. Households cisterns including a cistern for the school in the community.
30	301505	Deir as Sudan	Ramallah	100	0	40	0	100	0	90			5	5	1	Main source of water is coming through Jerusalem Water Undertaking (JWU) that supplies about 2200 m ³ /month. Major needs in the community: 1. Wastewater network 2. Solid waste collection system and a dumping site
31	301515	Rantis	Ramallah	100	0	55	0	100	95	0	100	60	5	6	4	The main road to the community is closed by the Israeli occupation and a

No.	Community ID	Community Name	Governorate	Households with year-round access to improved water source %	Households with year-round access to unimproved water source %	Water supplied per capita per day (liter)	Wastewater Network Coverage %	Connection to Cesspits or Septic Tank %	Availability of Solid waste Collection System %	Population Suffer from Water Born Diseases %	Water Supply Facilities Operated and Maintained by Council %	Cost Recovery for Water Supply Services %	Unaccounted for Water within Water Supply System %	Cost Recovery for Water Supply Services %	Unaccounted for Water within Water Supply System %	Community Needs and Comments
																secondary /dirt road is used to enter and get out of the community. The community was recently connected to a water network. Major needs in the community: 1. Distribution reservoir for the community (300 m ³). 2. Rehabilitation of main road to the community 3. Wastewater network since wastewater is flowing in the community roads and it is affecting the hygiene and the environment. 4. Rehabilitation and construction of agricultural cisterns.
32	301550	Umm Safa	Ramallah	100	0	45	0	100	0			5	10	5	2	Main needs of the community: 1. Distribution reservoir. 2. Household and agricultural cisterns and land reclamation 3. Rehabilitation of the local spring 4. Solid waste collection system 5. Wastewater network 6. Public Health Center
33	301560	Deir Nidham	Ramallah	100	0	65	0	100	0	0	100	80	10	4	1	Major source of water is Shabteen well. Major needs in the community:

No.	Community ID	Community Name	Governorate	Households with year-round access to improved water source %	Households with year-round access to unimproved water source %	Water supplied per capita per day (liter)	Wastewater Network Coverage %	Connection to Cesspits or Septic Tank %	Availability of Solid waste Collection System %	Population Suffer from Water Born Diseases %	Water Supply Facilities Operated and Maintained by Council %	Cost Recovery for Water Supply Services %	Unaccounted for Water within Water Supply System %	Cost Recovery for Water Supply Services %	Unaccounted for Water within Water Supply System %	Community Needs and Comments
34	301565	'Atara	Ramallah	20	80	10	0	100	100	1	10	70	5	3	2	<p>1. Rehabilitation and extension of the water network</p> <p>2. Solid waste collection system and a dumping site.</p> <p>3. Public Health center</p> <p>4. Rehabilitation of the local springs.</p> <p>5. Domestic and agricultural Households.</p> <p>Main source of water comes through the Jerusalem Water Undertaking (JWU) that provides about 3300 m³/month; about 1000 m³/month are provided through cisterns. One of the major problems affecting the environment in the community is the wastewater flows in addition to solid waste by tankers coming from Bizeit community and evacuating it very close to 'Atara community.</p> <p>Major needs in the community:</p> <ol style="list-style-type: none"> 1. Distribution reservoir 2. Wastewater network 3. Dumping site for solid waste 4. Public Health Center 5. Domestic and agricultural cisterns

No.	Community ID	Community Name	Governorate	Households with year-round access to improved water source %	Households with year-round access to unimproved water source %	Water supplied per capita per day (liter)	Wastewater Network Coverage %	Connection to Cesspits or Septic Tank %	Availability of Solid waste Collection System %	Population Suffer from Water Born Diseases %	Water Supply Facilities Operated and Maintained by Council %	Cost Recovery for Water Supply Services %	Unaccounted for Water within Water Supply System %	Cost Recovery for Water Supply Services %	Unaccounted for Water within Water Supply System %	Community Needs and Comments
35	301570	Deir Abu Mash'al	Ramallah	75	25	50	0	100	65	0	100	30	20	4	2	and land reclamation. Source of water is Shabteen well. Major needs in the community: 1. Rehabilitation and extension of the water network 2. Household cisterns 3. Solid waste collection system and collection vehicle 4. Wastewater network 5. Rehabilitation of the local springs. 6. Public Health Center.
36	301600	Kobar	Ramallah	70	30	45	0	100	100		0	80	35	10	7	Main source of water is through the Jerusalem Water Undertaking (JWU) that supplies about 5000 m ³ /month. Major needs in the community: 1. Rehabilitation of the water network 2. Distribution reservoir for the community. 3. Households and agricultural cisterns. 4. Rehabilitation of the local springs in the community. 4. Water quality needs more attention since the water sometimes has color, taste or smell.

No.	Community ID	Community Name	Governorate	Households with year-round access to improved water source %	Households with year-round access to unimproved water source %	Water supplied per capita per day (liter)	Wastewater Network Coverage %	Connection to Cesspits or Septic Tank %	Availability of Solid waste Collection System %	Population Suffer from Water Born Diseases %	Water Supply Facilities Operated and Maintained by Council %	Cost Recovery for Water Supply Services %	Unaccounted for Water within Water Supply System %	Cost Recovery for Water Supply Services %	Unaccounted for Water within Water Supply System %	Community Needs and Comments
37	301620	Beitillu	Ramallah	90	10	40	0	95	95		100	20	40	2	2	Major needs in the community: 1. Rehabilitation and extension of the water network 2. No dumping site is available in the community; an immediate solution for the solid waste is needed. 3. Immediate solution for local springs that are contaminated by cesspits and wastewater seepage.
38	301630	Jammala	Ramallah	90	10	40	0	95	95		100	20	40	2	2	Major needs in the community: 1. Rehabilitation and extension of the water network 2. Dumping site and suitable solution for the solid waste. 3. Wastewater network.
39	301655	Deir 'Ammar	Ramallah	90	10	40	0	95	95		100	20	40	2.5	2	Major needs of the community: 1. Extension of the water network 2. Dumping site for the solid waste 3. Development of a wastewater network
40	301725	Kharbatha Bani Harith	Ramallah	100	0	60	0	100	30		100	17	14	5	5	Major needs: 1. Solid waste collection system 2. Wastewater network 3. Distribution reservoir for the community

No.	Community ID	Community Name	Governorate	Households with year-round access to improved water source %	Households with year-round access to unimproved water source %	Water supplied per capita per day (liter)	Wastewater Network Coverage %	Connection to Cesspits or Septic Tank %	Availability of Solid waste Collection System %	Population Suffer from Water Born Diseases %	Water Supply Facilities Operated and Maintained by Council %	Cost Recovery for Water Supply Services %	Unaccounted for Water within Water Supply System %	Cost Recovery for Water Supply Services %	Unaccounted for Water within Water Supply System %	Community Needs and Comments
																4. Public awareness in relation domestic animals and livestock very close to houses which is affecting hygiene and health situation in the community.
41	301860	Beit 'Ur al Fauqa	Ramallah	100	0	50	0	100	100	0	100	90	5	8	3	
42	401950	Beit 'Anan	Jerusalem	68	32	30	0	90	95		100	35	40	5	2	Major needs in the community: 1. Rehabilitation and extension of the water network 2. Development of a wastewater network 3. Solid waste dumping site, especially after the Israeli occupation closed the dumping site that used to be used by all nearby communities; currently, solid waste is being dumped randomly including agricultural land. This is directly affecting the environment and the community hygiene situation. 4. Rehabilitation of the local spring (Ein Ajab).
43	401980	Al Qubeiba	Jerusalem	70	30	60	0	100	70	0	100	25	35	10	5	Major needs in the community: 1. Rehabilitation of the water network 2. Solid waste dumping site.

No.	Community ID	Community Name	Governorate	Households with year-round access to improved water source %	Households with year-round access to unimproved water source %	Water supplied per capita per day (liter)	Wastewater Network Coverage %	Connection to Cesspits or Septic Tank %	Availability of Solid waste Collection System %	Population Suffer from Water Born Diseases %	Water Supply Facilities Operated and Maintained by Council %	Cost Recovery for Water Supply Services %	Unaccounted for Water within Water Supply System %	Cost Recovery for Water Supply Services %	Unaccounted for Water within Water Supply System %	Community Needs and Comments	
																	3. Solid waste collection vehicle since the current vehicle is shared with Qatanna community and solid waste containers. 4. Water tanker to help in provision of water to households. 5. Distribution reservoir. 6. Agricultural cisterns. 7. Rehabilitation of household cisterns and construction of new cisterns.
44	401995	Biddu	Jerusalem	90	10	50	0	100	90		100	30	35	6	3	Major needs in the community: 1. Rehabilitation of the water network. 2. Development of a wastewater network 3. Finding a suitable dumping site. 4. Wastewater vacuum tanker for the village council. 5. Household and agricultural cisterns. 6. Solid waste containers.	
45	402015	Qatanna	Jerusalem	80	20	50	0	95	90	2	100	20	35	5	2	Major needs in the community: 1. Rehabilitation of the water network since it is very old. 2. Distribution reservoir for the community. 3. Household cisterns.	

No.	Community ID	Community Name	Governorate	Households with year-round access to improved water source %	Households with year-round access to unimproved water source %	Water supplied per capita per day (liter)	Wastewater Network Coverage %	Connection to Cesspits or Septic Tank %	Availability of Solid waste Collection System %	Population Suffer from Water Born Diseases %	Water Supply Facilities Operated and Maintained by Council %	Cost Recovery for Water Supply Services %	Unaccounted for Water within Water Supply System %	Cost Recovery for Water Supply Services %	Unaccounted for Water within Water Supply System %	Community Needs and Comments
46	402020	Beit Surik	Jerusalem	100	0	45	0	100	100		100	30	30	5	2	Major needs in the community: 1. Rehabilitation and extension of the water network. 2. Distribution reservoir for the community. 3. Household cisterns 4. Chlorination unit for domestic water.
47	402025	Beit Iksa	Jerusalem	100	0	100	0	100	90		100	30	35	15	10	There is a need to rehabilitate and extend the water network in the community
48	502620	Sa'ir	Hebron	80	20	49	0	100	70		90	20	20	20	5	Main sources of water in the community are Mekorot, Hebron municipality, local springs and cisterns. One of the local springs is not used since it is contaminated. Major needs in the community: 1. Rehabilitation of the water network. 2. Maintenance spare parts (pipes and fittings).
49	502635	Ash Shuyukh	Hebron	80	20	49	0	100	90	2	80	30	30	15	5	Major sources of water are Mekorot company in addition to water coming from household cisterns. The community has a 500 m ³ reservoir since 1999, but since the pressure of pumped water is weak, the reservoir was never

No.	Community ID	Community Name	Governorate	Households with year-round access to improved water source %	Households with year-round access to unimproved water source %	Water supplied per capita per day (liter)	Wastewater Network Coverage %	Connection to Cesspits or Septic Tank %	Availability of Solid waste Collection System %	Population Suffer from Water Born Diseases %	Water Supply Facilities Operated and Maintained by Council %	Cost Recovery for Water Supply Services %	Unaccounted for Water within Water Supply System %	Cost Recovery for Water Supply Services %	Unaccounted for Water within Water Supply System %	Community Needs and Comments
50	502655	Beit Kahil	Hebron	70	30	20	0	100	80	2	10	80	30	20	5	<p>used since that period. Major needs in the community:</p> <ol style="list-style-type: none"> 1. Increasing the water supply. 2. Maintenance spare parts (pipes, fittings). <p>The community was connected to a new water network in 1994; it worked fine until 1997 where the connected houses were about 750 connections. After 1997, the quantity provided through the network was not enough for the community; as a result the local council disconnected all houses from the network and stored the available quantity of water in a distribution reservoir, where water was transported to houses through 10 m³ tankers. The water network is not functioning anymore and there is a need for a new water network.</p> <p>Major needs:</p> <ol style="list-style-type: none"> 1. Development of a water network. 2. Maintenance spare parts (pipes and fittings) and maintenance vehicle. 3. Solid waste containers.

No.	Community ID	Community Name	Governorate	Households with year-round access to improved water source %	Households with year-round access to unimproved water source %	Water supplied per capita per day (liter)	Wastewater Network Coverage %	Connection to Cesspits or Septic Tank %	Availability of Solid waste Collection System %	Population Suffer from Water Born Diseases %	Water Supply Facilities Operated and Maintained by Council %	Cost Recovery for Water Supply Services %	Unaccounted for Water within Water Supply System %	Cost Recovery for Water Supply Services %	Unaccounted for Water within Water Supply System %	Community Needs and Comments
51	502685	Idhna	Hebron	60	40	21	0	100	90	5	60	20	45	15	5	Major needs in the community: 1. Distribution reservoir and a main line. 2. Rehabilitation of the water network. 3. Solid waste containers. 4. Spare parts for maintenance work (pipes and fittings).
52	502750	Taffuh	Hebron	65	35	25	0	100	70	3	65	20	30	20	5	Main sources of water in the community are Israeli Mekorot company, Hebron municipality, local springs and cisterns. Local springs are very close to an Israeli settlement, therefore reaching these springs is not easy because of the settlers threats, and rehabilitation of the springs is not possible, and as a result use of these springs are very limited. Major needs in the community: 1. Development of the water network 2. Vehicle for solid waste transport in addition to solid waste containers. 3. Maintenance spare parts (pipes and fittings).
53	502835	Beit 'Awwa	Hebron	45	55	37		95	55	5	45	35	30	15	5	Main sources of water for the community are Mekorot company, cisterns (about 500m ³ /month) and tankers.

No.	Community ID	Community Name	Governorate	Households with year-round access to improved water source %	Households with year-round access to unimproved water source %	Water supplied per capita per day (liter)	Wastewater Network Coverage %	Connection to Cesspits or Septic Tank %	Availability of Solid waste Collection System %	Population Suffer from Water Born Diseases %	Water Supply Facilities Operated and Maintained by Council %	Cost Recovery for Water Supply Services %	Unaccounted for Water within Water Supply System %	Cost Recovery for Water Supply Services %	Unaccounted for Water within Water Supply System %	Community Needs and Comments
																<p>Major need in the community:</p> <ol style="list-style-type: none"> 1. New water network since the available network is old. 2. Solid waste containers. 3. Spare parts for maintenance work (pipes and fittings).

Table 3: Relative change in tankers water price

No.	Community ID	Community Name	Governorate	Population 2006	Tankers Average Price now / NIS per m ³	Tankers Average Price before / NIS per m ³
1	10245	Zabda	Jenin	898	14.0	10.0
2	10265	Ya'bad	Jenin	15598	8.0	5.0
3	10465	Kafr Ra'i	Jenin	8453	12.0	9.0
4	10500	'Ajja	Jenin	5564	10.0	8.0
5	10520	Meithalun	Jenin	7573	8.0	8.0
6	10565	Al Jadida	Jenin	5274	9.0	7.0
7	10600	Siris	Jenin	5452	10.0	7.0
8	50560	Al 'Aqaba	Tubas		14.0	8.0
9	100290	Qaffin	Tulkarem	9446	3.3	3.3
10	100555	Al Masqufa	Tulkarem	229	13.0	13.0
11	150695	Yasid	Nablus	2476	13.0	8.0
12	150950	Sarra	Nablus	3126	10.0	
13	150975	'Iraq Burin	Nablus	833	10.0	10.0
14	150990	Tell	Nablus	5123	12.0	12.0
15	151000	Beit Dajan	Nablus	3879	12.0	12.0
16	151080	Burin	Nablus	2782	20.0	15.0
17	151090	Beit Furik	Nablus	11245	12.0	12.0
18	151095	'Asira al Qibliya	Nablus	2471	14.0	14.0
19	151135	'Awarta	Nablus	6282	15.0	15.0
20	151365	Qusra	Nablus	4801	12.0	12.0
21	151375	Talfit	Nablus	3233	13.0	13.0
22	151385	Majdal Bani Fadil	Nablus	2361	15.0	15.0
23	151445	Duma	Nablus	2400	15.0	15.0
24	301565	'Atara	Ramallah	2540	30.0	25.0
25	301570	Deir Abu Mash'al	Ramallah	3719	20.0	12.5
26	301600	Kobar	Ramallah	3968	20.0	20.0
27	401950	Beit 'Anan	Jerusalem	4610	4.0	4.0
28	401980	Al Qubeiba	Jerusalem	2236	20.0	10.0
29	401995	Biddu	Jerusalem	6884	25.0	17.5

No.	Community ID	Community Name	Governorate	Population 2006	Tankers Average Price now / NIS per m ³	Tankers Average Price before / NIS per m ³
30	402020	Beit Surik	Jerusalem	4127	4.0	3.5
31	402025	Beit Iksa	Jerusalem	1697	4.0	4.0
32	502620	Sa'ir	Hebron	14536	17.0	12.0
33	502655	Beit Kahil	Hebron	6333	15.0	10.0
34	502685	Idhna	Hebron	20351	15.0	10.0
35	502750	Taffuh	Hebron	10602	15.0	12.0
36	502835	Beit 'Awwa	Hebron	9022	15.0	10.0

Table 4: Effects of fixed checkpoints on communities

No.	Community ID	Community Name	Governorate	FCP Effect on Tankers Supply	FCP Name	FCP Effect on Maintenance Team Access	FCP Name	FCP Effect on PHC Access	FCP Name
1	50560	Al 'Aqaba	Tubas					1	Al Bathan
2	150695	Yasid	Nablus					2	Beit Iba
3	150950	Sarra	Nablus					1	Beit Iba
4	151000	Beit Dajan	Nablus					1	Beit Furik
5	151080	Burin	Nablus					1	Howwara
6	151090	Beit Furik	Nablus					1	Beit Furik
7	151095	'Asira al Qibliya	Nablus					1	Howwara
8	151135	'Awarta	Nablus					1	Howwara
9	151185	Huwwara	Nablus			1	Howwara	1	Howwara
10	151365	Qusra	Nablus					1	Howwara
11	151375	Talfit	Nablus					1	Howwara
12	151385	Majdal Bani Fadil	Nablus					1	Howwara
13	151445	Duma	Nablus					1	Howwara
14	201120	Wadi ar Rasha	Qalqiliya			1	Qalqiliya	1	Qalqiliya
15	301505	Deir as Sudan	Ramallah			1	'Atara checkpoint	1	'Atara checkpoint
16	301550	Umm Safa	Ramallah			1	'Atara checkpoint	1	'Atara checkpoint
17	301560	Deir Nidham	Ramallah			2	Harassment by Halmish settlers.		
18	301565	'Atara	Ramallah	2	'Atara checkpoint	2	'Atara checkpoint	2	'Atara checkpoint
19	301570	Deir Abu Mash'al	Ramallah			1	'Atara checkpoint	1	'Atara checkpoint
20	401980	Al Qubeiba	Jerusalem			1	Al Nabi Samuel	1	Al Nabi Samuel
21	401995	Biddu	Jerusalem	1	Qalandian and Al nabi Samuel checkpoints	1	Qalandian and Al nabi Samuel checkpoints	1	Qalandian and Al nabi Samuel checkpoints
22	502620	Sa'ir	Hebron	1	Beit Enon and Jerjes	1	Beit Enon and Jerjes	1	Beit Enon and Jerjes

No.	Community ID	Community Name	Governorate	FCP Effect on Tankers Supply	FCP Name	FCP Effect on Maintenance Team Access	FCP Name	FCP Effect on PHC Access	FCP Name
					(Between Bany Naim and Sair) checkpoints		(Between Bany Naim and Sair) checkpoints		(Between Bany Naim and Sair) checkpoints
23	502635	Ash Shuyukh	Hebron	1	Beit Enon	1	Beit Enon	1	Beit Enon
24	502685	Idhna	Hebron	2	Al Laya (north od Idhna).	1	Al Laya (north o Idhna).	1	Al Laya (north od Idhna).
25	502835	Beit 'Awwa	Hebron	1	Al Baqaa	1	Al Baqaa	1	Al Baqaa

Table 5: Effects of mobile checkpoints, earth mounds, curfew, and the WALL on communities.

No.	Community ID	Community Name	Governorate	Population 2006	MCP Effect on			Earth Mounds Effect on			Curfew Effect on Tankers			Wall Effect on		
					Tankers Supply	Maintenance Team Access	PHC Access	Tankers Supply	Maintenance Team Access	PHC Access	Tankers Supply	Maintenance Team Access	PHC Access	Tankers Supply	Maintenance Team Access	PHC Access
1	10245	Zabda	Jenin	898	1		1									
2	10465	Kafr Ra'i	Jenin	8453			2									
3	10500	'Aija	Jenin	5564			1									
4	10515	Ar Rama	Jenin	975		2										
5	10520	Meithalun	Jenin	7573			2									
6	10565	Al Jadida	Jenin	5274			1									
7	10600	Siris	Jenin	5452		2										
8	50560	Al 'Aqaba	Tubas		1		1	1	1	1						
9	100555	Al Masqufa	Tulkarem	229	1	1	1									
10	150695	Yasid	Nablus	2476	1		1		1	1						
11	151000	Beit Dajan	Nablus	3879	1		1				1		1			
12	151080	Burin	Nablus	2782	1		1									
13	151090	Beit Furik	Nablus	11245	1						1		1			
14	151095	'Asira al Qibliya	Nablus	2471	1		1									
15	151185	Huwwara	Nablus	6266								1	1			
16	151375	Talfit	Nablus	3233									1			
17	151445	Duma	Nablus	2400	1		1									
18	201120	Wadi ar Rasha	Qalqiliya			1	1					1	1			
19	301505	Deir as Sudan	Ramallah	2355		1	1									
20	301515	Rantis	Ramallah	3128					2	2			1			
21	301550	Umm Safa	Ramallah	779		1	1		2	2						
22	301560	Deir Nidham	Ramallah	983			1		1	1		1	1			
23	301565	'Atara	Ramallah	2540	2	2	2									
24	301570	Deir Abu Mash'al	Ramallah	3719	1	1	1							2		2

No.	Community ID	Community Name	Governorate	Population 2006	MCP Effect on			Earth Mounds Effect on			Curfew Effect on Tankers			Wall Effect on		
					Tankers Supply	Maintenance Team Access	PHC Access	Tankers Supply	Maintenance Team Access	PHC Access	Tankers Supply	Maintenance Team Access	PHC Access	Tankers Supply	Maintenance Team Access	PHC Access
25	401950	Beit 'Anan	Jerusalem	4610			1		1	1			1			
26	401980	Al Qubeiba	Jerusalem	2236		1	1									
27	401995	Biddu	Jerusalem	6884	1	1	1	1	1	1	1	1	1	1	2	2
28	402025	Beit Ikksa	Jerusalem	1697		2	1		2	2		2	2			
29	502620	Sa'ir	Hebron	14536	1	1	1				1	1	1			
30	502655	Beit Kahil	Hebron	6333	1	1	1				1	1	1			
31	502685	Idhna	Hebron	20351	1	1	1							1	1	1
32	502750	Taffuh	Hebron	10602	1	1	1									
33	502835	Beit 'Awwa	Hebron	9022	1	1	1							1	1	1