

PALESTINIAN HYDROLOGY GROUP

Water & Environmental Resources Development



مجموعة الهيدرولوجيين الفلسطينيين

لتطوير مصادر المياه والبيئة

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**In Coordination With:
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**Water and Sanitation, Hygiene (WaSH)
Monitoring Project:
Impact of the Current Crisis in the West Bank and Gaza Strip
Survey Report # 22
16 January – 15 February / 2005**

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Introduction

The **first section** of this report presents a summary of urgent needs in some of the Palestinian communities in the West Bank. A Newsflash concerning some communities was distributed on Wednesday, February 16th, 2005.

The **second section** includes summary of results of the information and update for communities surveyed during the previous four weeks. The section includes five major tables with brief comments on the data presented in these tables.

Section one: Urgent needs in Palestinian communities

1. Deir al Ghusun well problem / Tulkarem Governorate

(Wednesday, 16-2-2005).

Deir al Ghusun is a community with about 9000 capita. Since 1985 when the groundwater well owned by the municipality started to work and until now, the Turbine and the Pump were not functioning well for more than 8 times, causing a financial burden and problem to the municipality in addition to suffering of the whole community in getting the needed water. The last time the well was not functioning was during September 2004 when the community had to wait for several months to import the needed submersible pump from out side the West Bank since this pump is not available here. The availability of a standby pump could minimize suffering of people when the current pump is not functioning or needs maintenance.

During January 2004, the WaSH MP was contacted by Jamil Abu Ali / Head of Deir al Ghusun municipality and he informed the project that on the 14th of January, the pump and cable of the well are burned off and pumping of water from the well is not possible anymore, knowing that the well and cable were recently attached to the well (less than six months ago). The only available source of water is a main line that come from an agricultural well which was linked during the previous period as an alternative source of water, to supply the community with the needed water after the pump was burned off several times. Cost of supplied water through this well is about 1.1 NIS per m³ in addition to engine and pumping cost. This leads to an average cost of 1.5 NIS per m³; cost of water supplied through the municipality well is about 1 NIS per m³. It is worth mentioning that and due to the current difficult economical situation of the Palestinian communities, about 50% of the community households are not able to pay their water bills.

The head of the council assured us that the problem is basically in the ground water well itself and not the pump, since the well is not straight and there was a shift in it during its construction; this in addition to vibrations in its walls when the pump is working are causing the burning off of the pump and the cable, as confirmed by many expert who visited the location and checked the well and confirmed by the head of municipality too.

The head of the municipality confirmed that the only solution to this problem is a substitute groundwater well, deeper than the current well (188 m in the ground), and to be dug directly by it and using the same license. There is a preliminary agreement on digging a new substitute well by the Palestinian Water Authority but until this is accomplished the municipality is in need to use the available well to supply the

needed water to the community. The community have been supported and supplied with a new engine during the past few days but still in need of support to buy the cable, (FLEXIELE – PVC. FLAT / size: 3X95mm and 200 meters in length).

2. Damage of Beitillu local spring by settlers / Ramallah Governorate.

Beitillu is located in the western part of Ramallah Governorate with a population of 3025 capita and located very close to Nahli'el settlement.

Mohammad Eid is a member of a family (also a member of the local council) which is one of four other families that own the local spring called Maroun spring. The spring has a reservoir by it with a pump and used basically for storage of water used for agriculture.

The spring was attacked by settlers several times during the past period. The latest two incidences were during December 2004; the first time settlers from Nahli'el reached the reservoir and tried to damage the pump by taking a piece from it. They came back later when they discovered that this did not stop the pump completely and poured a mixture of oil, sand and kerosene on it in order to damage it completely. The families tried to file a complaint about these incidences to several bodies through the local council including DCL, hoping to help them in stopping these actions by settlers. It is worth mentioning that the same settlers threatened the lives of the families and they told them that they will come back to the community later.

Currently, the pump is not working and the spring water is not being used since they usually use the spring more extensively during summertime when water is mostly needed, and during winter they rely more on collected rainfall.

3. Pollution of the local spring in Madama / Nablus Governorate

Ein Al Sha'rah is a local spring in Madama community that consists of two ground water shallow wells about 100 meters away from each other. The first well is about 4 meters deep and the other one is about 10 meters deep in the ground.

Yizhar settlement is very close to Madama community and about 500 meters away from it. During the years 2000 through 2004, the spring was always polluted by the settler who through rubbish and solid waste in it and therefore the community was not able to utilize the spring during that period. In November 2004, the spring was rehabilitated and a protection house was built on it with door and lockers and a 2 inches pipeline was connected from the spring to a reservoir (60 m³) located closer to the community. The spring was since then used by the community as a source of domestic water. About ten days ago, settlers of Yizhar settlement damaged the housing and pipe that connects the two wells of the spring and also polluted it, again. Discharge of the spring, after the month of May, is about 100 m³ / day. The spring is not used right now since it is polluted and the only source of water for the community is tankers in addition to cisterns which are supplying good quantity of water since winter season was good this year.

There is a need for rehabilitation of the spring and reconnecting the reservoir with it with a new pipe.

Section two : Summary of information and update for the surveyed communities during 1 – 15 January 2005.

The WaSH MP has been updating the data collected during the past two years. The new survey focuses upon rapidly or significantly changed or changing data and collects and analyzes Mekorot Company supply during year 2003 and 2004

42 communities of the WB have been surveyed during the past four weeks. A new questionnaire has been prepared to illustrate significant changes and elements of interest to key stakeholders.

Collected data is presented in the following tables at the end of this section.

General comments:

Table 1: Water Supply by Tankers for Communities Surveyed during 16 January to 15 February / 2005.

Comparisons of prices of tankers water before and during the current Intifada are presented. Most of the communities suffered from the noticeable increase in the price of water, reflecting the effect of closures and curfews on water transport.

Effect of checkpoints, fixed and mobile, earth mounds and curfew is estimated in this table, 2 indicates a “severe” effect on water transport and the location is completely blocked, 1 indicates an “intermediate” effect i.e. delays between 1 and 6 hours, and 0 indicates no effect on the water transport.

A comparison of supplied quantities now and before the Intifada is also presented.

- It is noticed that, in general, price of tankers water in Hebron Governorate are higher than other Governorates, specially in At Tabaqa community (price is 18 NIS / m³). In Kharbatha al Misbah / Ramallah Givernorate, the price of tankers water is the highest between the 42 surveyed communities (33 NIS / m³). It is also noted that in Qalqiliya tanker water is relatively cheap (6 NIS / m³) since agricultural well are used for supply of domestic water.
- The effects of fixed and mobile checkpoints, earth mounds and curfews on water transport are presented in the table, with the numbers indicating the extent of closures as above. Effect of checkpoints is clear in Qalqiliya Governorate.
- Supplies of tanker water before and during Intifada are also presented in the same table. Communities that do not have defined quantities in the table do not rely on tankers as a source of water supply for the community.
- It is noticed that many communities in Hebron Governorate reduced the amount of water they get through tankers, since the rainfall quantity seems to be good this season and the collected amount of water in the cisterns is supplying a considerable amount of water for these communities. Most of these communities are very small communities in the Hebron Governorate.

Table 2: Water supply by Mekorot Company for communities surveyed during 16 January to 15 February / 2005.

In Table 2, total water quantities supplied to the communities are collected, and more specifically, quantities supplied by Mekorot Company now and before the Intifada are collected from local councils of these communities. In this table, “water supplies from all sources” include all water supplied from all sources in that community including supply from Mekorot Company. Only 23 communities out of the 42 surveyed, get all or a considerable part of their supplied quantities from Mekorot Company as a main source of domestic water.

Supplies are reduced in nine of these communities that get water from Mekorot Company and the rest are getting the same supplied quantity.

Table 3: Effect of checkpoints, earth mounds, and curfews on access to services in the Wet Bank and Gaza Strip.

In this table, summary of effects of fixed and/or mobile checkpoints, earth mounds, and curfews on access to services including access of water tankers, access of maintenance teams, and access to Public Health Centers (PHC) are presented. Eighteen of the surveyed communities are affected by more than one of these effects, but those affected with fixed check points are those which are suffering the most especially in Qalqiliya Govenorate with the direct effect of the WALL Gates. These communities are also affected by mobile checkpoints, earth mounds, and curfews.

Table 4: Damaged infrastructure during the surveyed period.

Damages in WaSH related infrastructure are presented in this table.

Damages in Beit Amin / Qalqiliya are as a direct effect of building of the WALL.

Table 5: Water supply for the surveyed communities and its major problems.

This table summarizes major problems in surveyed communities.

Table 1: Water Supply by Tankers for Communities Surveyed during 16 January to 15 February / 2005.

No.	Comm. ID	Community Name	District	Date	Tanker W. price (NIS / m ³)		Check Points (CP) effect on tankers					W.Tankers Supply (m3/month)		Damage of tankers	
					During Intifada	Before Intifada	Fixed CP	Fixed CP name	Mobile CP	Earth mounds effect	Curfew effect	Current	Regular	Complete	Partial
1	10295	Umm at Tut	Jenin	24/01/2005	10.0	10.0						600	600		
2	10305	Jalqamus	Jenin	24/01/2005	10.0	10.0						1000	1000		
3	10310	Al Mughayyir	Jenin	20/01/2005	11.0	11.0						2500	2500		
4	10315	Al Mutilla	Jenin	25/01/2005	13.0	13.0						300	300		
5	150695	Yasid	Nablus	25/01/2005	12.0	12.0						3500	3500		
6	201130	Ras at Tira	Qalqiliya	13/01/2005	6.0		2	WALL Gate	1		1	500	500		
7	201170	Ad Dab'a	Qalqiliya	23/01/2005	6.0		2	WALL Gate	1		1	300	300		
8	201255	Beit Amin	Qalqiliya	23/01/2005			1	'Azun Atma / WALL Gate	1		1				
9	301600	Kobar	Ramallah	03/02/2005	10.0										
10	301855	Kharbatha al Misbah	Ramallah	17/01/2005	33.0	25.0			1	2	2	300	450		1
11	301895	Beit Liqya	Ramallah	24/01/2005	12.0	7.0				1		0	700		
12	502800	Tarusa	Hebron	17/01/2005	15.0	10.0						20	40		
13	502820	Rafada	Hebron	18/01/2005	15.0	10.0						50	70		
14	502850	At Tabaqa	Hebron	20/01/2005	18.0	10.0						200	300		
15	502865	Khirbet Salama	Hebron	22/01/2005	15.0	10.0						50	100		
16	502875	Fuqeiqis	Hebron	31/01/2005	15.0	10.0			1	2		50	100		
17	502915	Marah al Baqqar	Hebron	03/02/2005	15.0	10.0						50	100		
18	502935	Al Heila	Hebron	05/02/2005	15.0	10.0						200	300		
19	502950	As Sura	Hebron	08/02/2005	12.0	8.0			1			500	800		

Table 2: Water supply by Mekorot Company for communities surveyed during 16 January to 15 February /2005.

No.	Comm. ID	Community Name	District	Date	Water supply (m3/month)		
					From all sources	Mekorot Supply (current)	Mekorot Supply (regular)
1	10295	Umm at Tut	Jenin	24/01/2005	2000	1200	1200
2	10305	Jalqamus	Jenin	24/01/2005	4000	2500	2500
3	10310	Al Mughayyir	Jenin	20/01/2005	4000	1000	1000
4	10315	Al Mutilla	Jenin	25/01/2005	340		
5	50700	El Far'a Camp	Tubas	25/01/2005	12000		
6	100360	Nazlat Abu Nar	Tulkarem	24/01/2005	500		
7	100380	An Nazla al Gharbiya	Tulkarem	24/01/2005	1000		
8	150695	Yasid	Nablus	25/01/2005	4000		
9	201130	Ras at Tira	Qalqiliya	13/01/2005	700		
10	201170	Ad Dab'a	Qalqiliya	23/01/2005	460		
11	201255	Beit Amin	Qalqiliya	23/01/2005	2000		
12	301555	Al Mazra'a ash Sharqiya	Ramallah	27/01/2005	7800		
13	301590	Kafr Malik	Ramallah	27/01/2005	4600	4000	4200
14	301600	Kobar	Ramallah	03/02/2005	6000		
15	301620	Beitillu	Ramallah	30/01/2005	5000	3500	3500
16	301655	Deir 'Ammar	Ramallah	01/02/2005	3500	3000	3000
17	301730	Ras Karkar	Ramallah	01/02/2005	2200	1700	1800
18	301740	Al Janiya	Ramallah	03/02/2005	1600	1400	1500
19	301755	Kafr Ni'ma	Ramallah	17/01/2005	7000	6000	6500
20	301855	Kharbatha al Misbah	Ramallah	17/01/2005	5500	3000	4000
21	301895	Beit Liqya	Ramallah	24/01/2005	9000	8000	8500
22	452260	Umm 'Asla	Betlehem	12/01/2005	180	150	150
23	452295	Fakht al Jul	Betlehem	15/01/2005	300	250	250
24	452320	Bureid'a	Betlehem	16/01/2005	400	300	300
25	452380	Al Beida	Betlehem	24/01/2005	400	350	400
26	452385	Beit Falouh	Betlehem	29/01/2005	600	400	500
27	452405	Jubbet adh Dhib	Betlehem	30/01/2005	150	120	120
28	452415	Khallet Sakariya	Betlehem	25/01/2005	150	150	150
29	452465	Khallet 'Afana	Betlehem	27/01/2005	10	8	10
30	452480	Umm Salamuna	Betlehem	26/01/2005	1000	800	800
31	452510	Wadi Muhammad	Betlehem	13/01/2005	140	120	120
32	502800	Tarusa	Hebron	17/01/2005	60		
33	502820	Rafada	Hebron	18/01/2005	400		
34	502850	At Tabaqa	Hebron	20/01/2005	1500		
35	502865	Khirbet Salama	Hebron	22/01/2005	350		
36	502870	Wadi 'Ubeid	Hebron	23/01/2005	150		
37	502875	Fuqeiqis	Hebron	31/01/2005	350		
38	502890	Tawas	Hebron	01/02/2005	200	150	
39	502915	Marah al Baqqar	Hebron	03/02/2005	200		
40	502935	Al Heila	Hebron	05/02/2005	1000		
41	502950	As Sura	Hebron	08/02/2005	2000		
42	502970	Deir al 'Asal al Fauqa	Hebron	08/02/2005	2000	1500	

No.	Comm. ID	Community Name	District	Date	Fixed check point effect on						Mobile check point effect on			Earth mounds effect on			Curfew effect on		
					Tankers	Ch. Point name	Maintenance teams	Ch. Point name	PHC access	Ch. Point name	Tankers	Maintenance teams	PHC access	Tankers	Maintenance teams	PHC access	Tankers	Maintenance teams	PHC access
		Dhib						Freidis checkpoint)		Freidis checkpoint)									
16	452480	Umm Salamuna	Betlehem	26/01/2005			1	Efrat settlement	1	Efrat settlement									
17	502875	Fuqeiqis	Hebron	31/01/2005							1		1	2			2		
18	502950	As Sura	Hebron	08/02/2005							1		1						

Table 4: Damaged infrastructure during the survey period

No.	Community Id	Community Name	District	Date	Damaged wells		Damaged springs		Damaged tankers		Damaged roof tanks	Damaged cisterns
					Completely	Partially	Completely	Partially	Completely	Partially		
1	201255	Beit Amin	Qalqiliya	23/01/2005		8	2	1				20
2	301620	Beitillu	Ramallah	30/01/2005				1				
3	301855	Kharbatha al Misbah	Ramallah	17/01/2005						1	6	

Table 5: Water supply for surveyed communities and its major problems.

No.	Community ID	Community Name	District	Date	Supply from all sources (m ³ / month)	General Comments for the community
1	10295	Umm at Tut	Jenin	24/01/2005	2000	
2	10305	Jalqamus	Jenin	24/01/2005	4000	Water losses in the network exceed 40%.
3	10310	Al Mughayyir	Jenin	20/01/2005	4000	
4	10315	Al Mutilla	Jenin	25/01/2005	340	Source of water is an agricultural well in Qabatyah which is about 25 Kms away.
5	50700	El Far'a Camp	Tubas	25/01/2005	12000	Source of water is a UN owned well that supply water to the camp continuously during summer and winter (pumpage is about 400 m3 / hour)
6	100360	Nazlat Abu Nar	Tulkarem	24/01/2005	500	Water network is being implemented in the community in coordination with Baqa Al Sharqiyyah and supported by UNDP. The community has agricultural water network and supply is provided through this network from Baqa Ak Sharqiyyah agricultural well. Tankers are not used in the community. Water price is 70 NIS per hour to fill in cisterns (about 1 NIS per m3). Pumpage of the agricultural well is about 80 m3/ hour. Chlorination of water is through use of tablets distributed by the local council and in coordination with the Ministry of Health (MoH).
7	100380	An Nazla al Gharbiya	Tulkarem	24/01/2005	1000	No water network is available in the community. Tankers are not used in the community. Water is supplied from Baqa Al Sharqiyyah agricultural well through agricultural water network, where this network is used to fill in cisterns with a price of about 70 NIS / hour (pumpage of the well is about 80 m3/hour). Chlorination tablets are used which is provided by the local council in coordination with the Ministry of Health (MoH).
8	150695	Yasid	Nablus	25/01/2005	4000	
9	201130	Ras at Tira	Qalqiliya	13/01/2005	700	Water is supplied to the community from Ras Atiyyah groundwater and agricultural well through tankers in addition to the availability of cisterns in households. The community has water network that is not used

No.	Community ID	Community Name	District	Date	Supply from all sources (m ³ / month)	General Comments for the community
						because of conflicts with Ad Dab'a community and the need for connecting this network with households. Chlorination tablets are being used which is distributed by the local council in coordination with the Ministry of Health (MoH).
10	201170	Ad Dab'a	Qalqiliya	23/01/2005	460	Water is supplied to the community through tankers that bring water from agricultural groundwater well in Ras Atiyyah in addition to the collected water through cisterns. The community has a water network that is not used because of conflicts with Ras Tirah community and the need for connecting the network with households. Chlorine tablets are being used which is distributed by the local council in coordination with the Ministry of Health (MoH).
11	201255	Beit Amin	Qalqiliya	23/01/2005	2000	Water is supplied through 'Azzoun Atma ground water well. Damages of water infrastructure facilities caused by the construction of the WALL several months are not fixed yet.
12	301555	Al Mazra'a ash Sharqiya	Ramallah	27/01/2005	7800	Main source of water for the community is Ein Samiya wells. (About 7500 m3 / month which is decreased to about 7000 m3 / month during the past period).
13	301590	Kafr Malik	Ramallah	27/01/2005	4600	Many cases of blood and bone cancer were registered in the community during the past period. It is believed that this is related directly to the wastewater flowing from the Israeli Military base established on the community land.
14	301600	Kobar	Ramallah	03/02/2005	6000	Supply of water is from Ein Samyia wells with an average supply of 5000 m3/month. During the last summer, people, especially living on high areas, were forced to buy water using tankers with an average of 350 m3/month with a price of 10 NIS / m3.
15	301620	Beitillu	Ramallah	30/01/2005	5000	More than 75% of the households are not able to pay water bills because of the current difficult economical situation.
16	301655	Deir 'Ammar	Ramallah	01/02/2005	3500	More than 75% of the population does not pay water bills during the current crisis. There is need of cisterns in the community since coverage percentage is very small.
17	301730	Ras Karkar	Ramallah	01/02/2005	2200	The Public Health Center (PHC) is available for three days / week only in the community. The water network is very old and is in need of

No.	Community ID	Community Name	District	Date	Supply from all sources (m ³ / month)	General Comments for the community
18	301740	Al Janiya	Ramallah	03/02/2005	1600	rehabilitation. 70% of the population is not able to pay the water bills. The water network is old and needs rehabilitation. The community needs more household cisterns. More than 65% of households do not pay water bills. Due to closures and Israeli siege policy, the dump site is now available within the community border which is affecting negatively the community environment.
19	301755	Kafr Ni'ma	Ramallah	17/01/2005	7000	There are complains by the community about the water quality of the supplied water. The main reservoir is being used by the Israeli Forces, since more than two years, as a monitoring point for the community.
20	301855	Kharbatha al Misbah	Ramallah	17/01/2005	5500	Many new households are being connected (illegally) to the water network through plastic pipe. This causes a problem in the water supply. On the other hand, use of cisterns is reducing the dependency on tankers water during these days.
21	301895	Beit Liqya	Ramallah	24/01/2005	9000	During summertime, main water valves are being closed several times, mainly by settlers. This always causes a real problem for the community and people are forced to use other alternative sources of water like tankers. During winter time, the situation usually gets better since cisterns provide a good alternative source of water.
22	452260	Umm 'Asla	Betlehem	12/01/2005	180	Water tankers are not used during this time of the year since rainfall collected water is available.
23	452295	Fakht al Jul	Betlehem	15/01/2005	300	Water tankers are not used at this time of the year since water is available from collected rainfall.
24	452320	Bureid'a	Betlehem	16/01/2005	400	The community does not use water tanker at this time of the year.
25	452380	Al Beida	Betlehem	24/01/2005	400	Water tankers were not needed during winter.
26	452385	Beit Falouh	Betlehem	29/01/2005	600	Water tankers were not used during this winter season.
27	452405	Jubbet adh Dhib	Betlehem	30/01/2005	150	The community was connected to a water network at the beginning of 2004. Water tankers were not used during this winter since collected rainfall was good during this season.
28	452415	Khallet Sakariya	Betlehem	25/01/2005	150	Water tankers were not used during this winter season.
29	452465	Khallet 'Afana	Betlehem	27/01/2005	10	Water tankers are not being used during this winter season since water is available through cisterns.

No.	Community ID	Community Name	District	Date	Supply from all sources (m ³ / month)	General Comments for the community
30	452480	Umm Salamuna	Betlehem	26/01/2005	1000	Water tankers are not used during this winter season.
31	452510	Wadi Muhammad	Betlehem	13/01/2005	140	Use of tankers water stops at this time of the year since water is available through collection of rainfall water.
32	502800	Tarusa	Hebron	17/01/2005	60	Availability of collected rainfall decreased the use of water tankers.
33	502820	Rafada	Hebron	18/01/2005	400	Water tankers are not used during this time of the year since water is available from collected rainfall.
34	502850	At Tabaqa	Hebron	20/01/2005	1500	Use of water tankers has decreased during this period because of use of collected rainfall water.
35	502865	Khirbet Salama	Hebron	22/01/2005	350	Water tankers use has decreased because of the availability of collected rainfall water.
36	502870	Wadi 'Ubeid	Hebron	23/01/2005	150	Water tankers are not used during this time of the year since collected rainfall water is available.
37	502875	Fuqeiqis	Hebron	31/01/2005	350	The community has a community reservoir for collection of rainfall (implemented by PHG) which provided the needed water quantities during this winter, therefore, water tankers use was reduced during this winter.
38	502890	Tawas	Hebron	01/02/2005	200	The community was connected to a water network in October 2004. Water tankers were not used during this winter season.
39	502915	Marah al Baqqar	Hebron	03/02/2005	200	There is reduction in the water tankers use since water is available from collection of rainfall in cisterns during winter season.
40	502935	Al Heila	Hebron	05/02/2005	1000	Since collected rainfall in cisterns was good this season, tankers use was reduced.
41	502950	As Sura	Hebron	08/02/2005	2000	Quantities supplied through tankers are decreased since collected rainfall water in cisterns was providing the needed water for the households.
42	502970	Deir al 'Asal al Fauqa	Hebron	08/02/2005	2000	The whole community was connected with a water network six months ago. Water tankers were not used during winter since collected rainfall was good in this season.