

- In March, the UNICEF-led WASH cluster led capacity-building workshops in Gaza and the West Bank on the cluster approach, information management, and humanitarian imperatives. Over 50 WASH programme officers participated, along with counterparts from the Palestinian Water Authority and the Coastal Municipalities Water Utility.
- This monthi's update previews the findings of a UNICEF-supported household survey on access and quality of water at 1,250 Gaza households between August and December 2009. The study was led by the Palestinian Hydrology Group with the WASH cluster. The report will be available on the UNICEF-oPt website in April. Funding was provided by the United Kingdomi's Department for International Development.

World Water Day 2010

At the 1994 Earth Summit in Rio de Janeiro, 172 governments agreed that World Water Day would be marked on March 22 of every year. This year's theme was water quality iV while almost three quarters of the earth is covered by water only one per cent is safe for human consumption. Unsafe drinking water is a major cause of waterborne diseases including diarrhea (the second biggest killer of children under five), hepatitis and typhoid.

While the oPt is on track towards meeting the Millennium Development Goal related to reduce by half the proportion of people with access to safe water and adequate sanitation, there are unique and complex challenges related to ongoing political negotiations with Israel, as well as overuse, contamination, wastage, and insufficient quality controls.

Gaza household survey findings

Gaza context

UN agencies and the Coastal Municipal Water Utility (CMWU) estimate that only 5% - 10% of the aquifer is suitable for human consumption and that this supply could run out over the next five to 10 years without improved controls.

"Cast Lead" damaged more than 30 kilometres of water networks, 11 groundwater wells, 6,000 roof tanks and 840 household connections.

Deficient supplies of industrial fuel and the severe, almost non-existent, supplies of essential materials such as cement and pipes for repair and maintenance work have rendered the water and wastewater services unreliable and hazardous.

The network's poor state of repair means around 47% of supply is lost to leakage and flows are frequently intermittent with half the population receiving water a maximum of three days a week or not at all.

Damaged infrastructure also means millions of litres of raw effluent seeps into the environment. Even when the effluent is successfully discharged into one of Gaza's three wastewater plants, much of it remains untreated because they function only intermittently.

WHO estimates that 26% of disease in Gaza is water related. It has also reported that the chance of an outbreak of water-borne and food-borne diseases, such as cholera, is high. The United Nations Relief and Works Agency (UNRWA) and Gaza's Department of Health reports that water diarrhea, acute bloody diarrhea and viral hepatitis remain the major causes of morbidity among reportable diseases among refugees.

Drinking water

Although 98% of Gaza's 1.5 million residents are connected to the water network, the majority of Gazans (82.7%) rely on water vendors for drinking water. The average household spends 36 shekels (USD 9.70) a month, and some spend as much as much as 67 shekels (USD) 18 a month on water.

The vast majority, 86.9%, rely on desalinated water for drinking, which means they are consuming water stripped of essential nutrients such as calcium and magnesium.

Rising poverty has forced many to drink water drawn from private and agricultural wells that are polluted from farming and wastewater seepage. In Al Mawasi for example, where there is no water network and only 58% of households are able to buy water from vendors,

47% say agricultural wells are their primary source of drinking water.

Water supply

Al Maghazi camp is the only area where all households have running water the majority of the time, four to seven days a week. Across Gaza just 48% of households have running water four to seven days a week.

Around 10% of households are not connected to running water. In Al Mawasi no household has running water and in Khan Yunis camp 52% do not have running water. In some places like Rafah and Ash Shati' Camp it runs just once a week.

An average of 18% of households said they had running water for more than 12 hours a day. In the majority of households (72%), the water flows less than 12 hours a day. Of these, 45% have running water for five to 12 hours and 27% for less than four hours. Residents in Al Qarara consume as little as 2.6 litres per day each for drinking and domestic purposes.

Domestic water

Most (84%) households rely on the network for their domestic water but in places where the connections are poor they rely on other sources.

In Al Mawasi, as few as 1.4% of households receive their domestic water from the municipal network while 98.7% draw it from private wells. In Jabalya refugee camp, just 13% source their domestic water from the network, 29% buy it from water vendors, 45% receive it through aid and 13% rely on private wells. In Khan Yunis camp 57% source their domestic water from the network and 43% from humanitarian aid.

Between 90% to 95% of the water in the municipal network is unfit for consumption and many households instead use their drinking water for making meals. Across Gaza, 47% of households use their drinking water to cook.

Beit Hanun has the highest incidence of households (64%) using drinking water for cooking even though they pay more than most (54 shekel/US\$14.52 per litre) for their water.

Three-quarters of households are connected to the wastewater network. However no households are connected in Al Mawasi and Juhor ad Dik.

Hygiene

Hygienic practices vary with 45% of all survey respondents washing their hands before cooking and 65% washing their hands before eating.

In Al Mawasi, where there is no running water and no waste water connection, none of the survey respondents reported washing hands before cooking but all reported washing their hands before eating.

Indeed, it was the only place where 100% washed their hands before eating. In Juhor ad Dik, where there is no wastewater connection and almost 60% are not connected to the municipal water supply, hand washing before eating was 97% second only to Al Mawasi's 100% record. Yet only 50% in Juhor ad Dik washed their hands before cooking.

Hand washing before cooking was most widely spread in Khan Yunis where 76.7% of respondents reported adhering to this practice. The same proportion also reported washing their hands before eating.

Across Gaza 44% of people shower every day. Showering everyday is most common in Beit Hanun (74%), where 88% of households report having running water four to seven days a week, even though it mostly runs less than four hours a day. Showering everyday is least common in Khan Yunis where less than 3% of households report this practice even though 79% have running water four to seven days a week.

Health

Diarrhea is often contracted through polluted water or from poor hygiene practices. One in five households said they had at least one child under the age of five who had been infected with diarrhea in the four weeks prior to being surveyed.

However the incidence of diarrhea was much higher, affecting 40% of children in Beit Hanun where, even though hand washing before eating is more widespread (93%) than every other place in Gaza, except Al Mawasi, and where daily showering is most common (88%), hand washing before cooking is very uncommon (5.4%).

Yet in Al Mawasi, where no one washes their hands before cooking but everyone washes their hands before eating, less than one in five households had children who had been infected with diarrhea.

Approximately one in three households in Jabalya camp (32.1%), As Shati' Camp (36.2%), Northern Remal (34.7%), Ash Sheikh Radwan (38.3%), and Deir Al Balah (33.4%) reported children under five with diarrhea.

UNICEF's WASH programme

In oPt, UNICEF works to improve WASH infrastructure and hygiene promotion in schools; restore / rehabilitate connections to networks and filling points for extremely marginalized and vulnerable communities in the West Bank and Gaza; and strengthen information management, especially in water quality surveillance. In 2010, UNICEF will work specifically to:

- With the Ministry of Education and Higher Education, reconstruct/rehabilitate WASH facilities at 74 schools (42 West Bank and 32 in Gaza). UNICEF will also tanker daily drinking water to 25 schools in the West Bank and 80 schools in Gaza. Training and public awareness campaigns on in hygiene behavior change will be conducted through at least 45 schools.
- To help meet severe shortages in water supply in extremely vulnerable parts of Area C of the West Bank and minimize health risks associated with water/environmental pollution in Gaza, UNICEF will rehabilitate water networks and connections to filling stations, rehabilitate sewage networks and construct booster stations and a water reservoir. Target population is over 18,800 families.
- Technical assistance will focus on supporting the Palestinian Water Authority to finalize the Water Governance Law and 2010-2013

Action Plan; establishing a water quality surveillance system; updating PWA's database management system and CMWU's the GIS system. UNICEF will also strengthen WASH cluster coordination and implementation through technical support and knowledge sharing.

• Following the UNEP environmental assessment in the wake of "Cast Lead", UNICEF is coordinating the development of a response plan to address poor water quality. The "Protecting Children from Unsafe Water" Strategy is focused on i) a comprehensive mapping; ii) communication for development related to water safety and hygiene practices; and iii) proper infant feeding, including breastfeeding.

WORLD WATER DAY 2010

In Gaza, UNICEF supported a nine day water and sanitation awareness campaign in 28 elementary schools. In the closing ceremonies, children pledged to conserve water and spread awareness in their communities.

PROTECTING CHILDREN

UNICEF's approach to child survival and development works to ensure that communities and households have access to drinking water of adequate quantity and quality, as well as good sanitation and hygiene practices. UNICEF works in more than 90 countries around the world to improve water supplies and sanitation facilities in schools and communities, and to promote safe hygiene practices. In emergencies UNICEF provides urgent relief to communities and nations threatened by disrupted water supplies and disease.

Basic			
Indicators	Total population (2010)	3 767 126	PCBS Population Housing and Establishment
-	West Bank Gaza	2,350,583 1,416,543	Census, 2007
2	Child population (under 18 years, 2010) West Bank Gaza	1,946,672 1,165,786 780,886	PCBS, Population, Housing and Establishment Census, 2007
3	Child population (under 5 years, 2010) West Bank Gaza	644,697 340,199 304,498	PCBS, Population, Housing and Establishment Census, 2007
4	Child population (under 1 year, 2010) West Bank Gaza	115,550 63,52 52,021	PCBS, Population, Housing and Establishment Census, 2007
5	GNI per capita (US\$, 2007)	1230	The State of the World's Children 2010, UNICEF
6	People living below the national poverty line (%, 2007)± West Bank Gaza	39.6 23.6 55.7	PCBS, Poverty and Living Conditions in the Palestinian Territory, 2007
Health and		·	
7	Under 5 mortality rate (per 1,000 live births, 2006) West Bank Gaza	28 26 32	PCBS, Palestinian Family Health Survey, 2006
8	Infant mortality rate (per 1,000 live births, 2006) West Bank Gaza	25 23 29	PCBS, Palestinian Family Health Survey, 2006
9	Maternal mortality ratio (per 100,000 live births, 1995)	70-80	PCBS, 1995
10	Children 12-23 months fully immunised (%, 2006) West Bank Gaza	96.4 94.4 99.4	PCBS, Palestinian Family Health Survey, 2006
11	Children 12-23 months immunised against measles (%, 2006) West Bank Gaza	97.0 95.0 99.4	PCBS, Palestinian Family Health Survey, 2006
12	Stunting prevalence (moderate and severe) among under-5 (%, 2000-2007*)	10	The State of the World's Children 2010, UNICEF
13	Wasting prevalence (moderate and severe) among under-5 (%, 2000-2007*)	1	The State of the World's Children 2010, UNICEF
14	Malnutrition prevalence (underweight) (moderate and severe/severe (%, 2000-2007*) West Bank	2.9 3.2 2.4	PCBS, Palestinian Family Health Survey, 2006

	Gaza		
15	Births attended by skilled health personnel (% , 2006) West Bank Gaza	98.6 98.2 99.3	PCBS, Palestinian Family Health Survey, 2006
HIV and AIDS			
16	Prevalence of HIV/AIDS	No data	
Water and Sanitation			
17	Use of improved drinking water sources (%) West Bank Gaza	86.3 100.0 93.8	PCBS, Household Environment Survey database, 2003-2006
Education			
18	Use of improved sanitation facilities (%) West Bank Gaza	99.2 99.7	PCBS, Household Environment Survey database, 2003-2006
19	Literacy rate of 15-24 year olds (Total/Male/Female; %; 2006) W est Bank Gaza	99.1//99.1/99.0 99.1/99.2/99.1 99.0/99.1/98.9	PCBS, Labor Force Survey atabase, 1995-2007
20	Proportion of pupils starting grade 1 who reach last grade of primary West Bank Gaza	99.3 99.0 99.5	PCBS, Education Census, 1994/1995 - 2006/2007
21	Primary net enrolment ratio (Total/Male/Female; %; 2006) West Bank Gaza	83.9/84.7/83.1 82.7/81.7/83.6 85.8/89.3/82.2	PCBS, Education Census, 1994/1995 - 2006/2007

± PCBS uses two measures of poverty: Deep Poverty (absolute) and Poverty. *The Deep Poverty line reflects a budget for food, clothing and housing only. For a family of six the deep poverty line in 2006 was NIS 1,837. The Poverty line adds other necessities including health care, education, transportation, personal care and housekeeping supplies; raising the line to NIS 2,300 for a family of 6. Thus, the percentage of households in Poverty includes those in deep poverty.