



The Impact of the Israeli Offensive on the Right to Water in the Gaza Strip

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Introduction

The siege on Gaza, combined with the constant violent incursions by the IOF, has negatively impacted every human right of the citizens in the Gaza Strip. Among them are the right to water and the right to health, both of which have been directly and indirectly violated by Israeli policies and military attacks. Since 1967 Israel's policies have seriously deteriorated the quality and quantity of the water and sanitation system in the Gaza Strip as well as the West Bank. Since the strengthening of the siege in 2006, the situation has become increasingly worse, and the Israeli Cast Lead Offensive (the Offensive) in December 08/January 09 has pushed the situation to the brink of disaster.

Because Israel is not allowing the entry of materials to repair and build new infrastructure in the water sector, the existing facilities are deteriorating at a rapid rate. This rate was increased during the Offensive, which led to the destruction of 112 wells,¹ thousands of meters of pipes and several key water tanks.² As a result many Gazans lost their access to clean water during the Offensive and many continue to have problems of access. The continued closure policies following the Offensive have also increased the already massive damage caused by sewage seeping into the ground and polluting many clean water sources, including the fresh water aquifer, Gaza's main source of clean water.

The limitations on electricity coming from Israel throughout the last two years, and especially during the Offensive, have exacerbated the water crisis by obstructing the water facilities from operating properly. This includes the sewage treatment plants. The lack of electricity has affected the functioning of wells and other facilities. During the Offensive people who had water supplies in tanks were not able to access them due to the pumps not working because of the lack of electricity. In addition, residents of Gaza's many high-rise buildings could not pump water to their homes owing to the constant electricity cuts.

As the occupying power, Israel has an obligation to ensure that Palestinians have access to sufficient clean water, among other basic necessities. In addition, it has the obligation during times of war to avoid bombarding civilian infrastructure, including the water sector, and to allow technical teams to fix water networks that may be damaged as a result of the hostilities. Due to the damage caused by the siege and the Offensive, according to the Palestinian Ministry of Health, as much as one fifth of the population of the Gaza Strip is not being provided with clean water and is being forced to obtain water from private suppliers.³ Israel's direct obstruction of Gazans' right to access basic necessities needed for their survival constitutes a war crime that must be condemned internationally.

¹ Figure based on data gathered by Al Mezan fieldworkers.

² Figures provided by the Coastal Municipal Water Utility.

³ OCHA, "Field Update on Gaza from the Humanitarian Coordinator." 22-23 January 2009, pp. 2
<http://www.ochaopt.org/documents/ocha_opt_gaza_humanitarian_situation_report_2009_01_22_english.pdf>

Background

Israel has constantly violated the human rights of the Palestinian community, including the right to sufficient clean water. Following the Six-Day War in June 1967, Israel increased its hold on the OPT and took control over the water resources in the territory. It also prohibited the building for new water infrastructure in the 1960s in a series of Military Orders. This led to a diminishing access to water, as Israel drained some Palestinian wells and confiscated others. In 1986 the pumping quota enforced by Israel of Palestinians was reduced by 10%.⁴ In addition, Israel engaged in the blocking of natural springs and wells, uprooting trees, and demolishing water infrastructure.⁵

Over the next 40 years the coastal aquifer became Gaza's main source of clean water. As the population of the Gaza Strip has grown rapidly, the aquifer has become increasingly depleted. The Strip is one of the most densely populated areas in the world, according to the Palestinian Central Bureau of Statistics (PCBS) in 2008 there were more than 1.6 million inhabitants living within the 365km Strip and this number is expected to reach 2.97 million by 2025. The current water demand in Gaza is 170-180 million cubic meters per year (mcm/yr),⁶ and because the aquifer's recharge rate is only 90 mcm/yr there is a deficit of 80-90mcm/yr. This deficit is a result of low rainfall as well as the increased consumption. The consequence has been the excessive draining of the aquifer, leading to deterioration in the water quality as sea water has seeped in and salinated the remaining fresh water. The water has become further contaminated by chemicals like fertilizers and pesticides, as well as sewage that are seeping in. The polluting of Gaza's main water source is being exacerbated by Israel's construction of facilities that divert groundwater from running into Gaza as well as facilities that extract water from the OPT for Israeli usage. Prior to the withdrawal of Israeli settlers in the Gaza Strip in September 2005, Gaza's water resources were excessively extracted and pumped for their needs as well as the needs of Israeli towns outside the Strip.

After Hamas' victory in 2006, sanctions were imposed by the Quartet (the United States, the European Union, the United Nations and Russia) on the government and aid was redirected through non-governmental mechanisms. Though aid continued to flow in, the sanctions affected the effectiveness of the aid and the severe restrictions of movement of goods and equipment impacted Gazans' access to basic necessities.⁷ The restrictions were tightened further after Israel announced that Gaza was a 'hostile entity' on 19 September 2007. The restrictions resulted in 15,000 Gazans not receiving adequate amounts of drinking water.⁸ In January 2008 all checkpoints in and out of Gaza were closed and the movement of all goods was limited, and electricity and fuel deliveries from Israel were severely cut.

As the occupation has continued for decades, Israel has systematically destroyed wells and other water and

⁴ A. Jarrar, "Water from Conflict to Cooperation, Palestine and Israel Case, How to Promote Cooperation." Palestinian Water Authority, 2003, p. 2.

⁵ K. Kelly and T. Homer-Dixon, "Environmental Scarcity and Violent Conflict: The Case of Gaza." 1995.
<<http://www.library.utoronto.ca>>

⁶ This is the total consumption; it includes water for domestic, agricultural and industrial use. Figures provided by the Coastal Municipal Water Utility.

⁷ Israel controls 5 of the 6 checkpoints for access into Gaza- Erez, Nahal Oz, Karni, Sufa and Kerem Shalom. Currently Nahal Oz fuel pipelines are partially open, Karni is closed except for the grain conveyor belt, Sufa is closed and Kerem Shalom has been closed on most of the days it has been scheduled to be open. Erez is open to certain individuals, and Rafah is completely closed for any cargo.

⁸ Oxfam, "Gaza siege puts public health at risk as water and sanitation services deteriorate, warns Oxfam." 21 November 2007
<<http://www.oxfam.org/en/node/228>>

sanitation infrastructure. Recently with the siege policies limiting new equipment and building materials from entering Gaza, the population has not been able to repair the damaged infrastructure nor build new facilities. Currently the Coastal Municipal Water Utility (CMWU), responsible for the provision of the water supply and sanitation services⁹ in Gaza, is struggling to maintain the 150 water wells, 37 sewage pumping stations and three waste-water treatment plants under its control. Most of the wells, stations and plants are in desperate need of replacement parts, and new construction on water infrastructure has been halted since 2007 because of the lack of necessary materials. In addition, the restrictions on electricity and fuel have severely hindered the operations of the pumps and plants that are still able to function.

⁹ Sanitation services include sewage collection, treatment and final destination.

IOF Attacks on the Water Sector

The recent Offensive on the Gaza Strip on December 27, 2008, which lasted for 23 days and was dubbed Operation Cast Lead, demonstrated IOF policies to target civilians and civilian infrastructure in an unprecedented way. 1,405 Gazans were killed,¹⁰ 311 of them children and 111 women, and over 10,845 houses were partially or completely destroyed. Within the water sector alone 112 wells were damaged, of which 74 were completely destroyed,¹¹ and over 19,000 meters of water pipes were damaged by bombardments. This led to 500,000 citizens of Gaza (one third of the population) losing complete access to clean running water and another 500,000 having access to water only several hours each week during the Offensive. The remaining third of the population received water for 4-6 hours every 2-3 days.¹² The destruction to water facilities was carried out with the IOF having full and detailed information on the location of every single pipe, tank and plant that was crucial to ensuring the Gazan population's access to water.

From the beginning of the Offensive the IOF took measures to prevent the population from movement within different parts of the Gaza Strip and targeted bridges that connect Gaza City to the South IOF warplanes bombarded and destroyed the water pipes transferring water from 3 wells to the city of Nusseirat and al-Zahra. The result was over 30,000 residents losing their access to running water until end of the Offensive. A similar attack targeting a major road junction, underneath which runs a major water pipe that connects 5-7 wells in Northern Gaza to Gaza City and accounted for 40% of the total water supply of Gaza City, deprived over 200,000 residents of clean running water.¹³ The CMWU in cooperation with the ICRC contacted the Israeli Coordination Unit in Erez and asked permission to send a contractor and the CMWU technical team to repair the pipes- this request was denied and the pipes were only repaired after the end of the attacks. Another attack targeted at a former Israeli military base (former Civil Administration compound) located east of the town of Jabaliya led to the total destruction of El Edara well. The operator of the well died in the attack and the population of the entire surrounding area (around 25,000 people) lost their main source of running water. An IOF bombardment destroyed an electrical transformer that powers the Ash-Sheikh 'Ijleen well, which provides water for the entire surrounding neighborhood. A repairman risked his life to enter the area that was being bombarded to fix the well.

Initial estimates of the damage to the water and sanitation sector since the end of the Offensive amounts to \$5,971,690.¹⁴ This sum includes the wells that were damaged and destroyed; water pipelines, as well as the severe damage caused to a number of facilities and water management systems including water tanks and wastewater systems.¹⁵ This figure does not include the long-term damage which has been done to the aquifer due to the sewage flooding and its impact on the health of the Gazan population.

¹⁰ The number of civilian casualties was at least 1,201, this number includes police and other civil servants.

¹¹ This includes water wells for household use and agricultural wells.

¹² OCHA, "The Humanitarian Monitor: occupied Palestinian territories." No. 33 January 2009, pp. 8
<http://www.ochaopt.org/documents/ocha_opt_humanitarian_monitor_2008_12_1_15_english.pdf>

¹³ Palestinian Coastal Municipalities Water Utility press release, "The Water Utility calls on the citizens of the Gaza Strip to conserve the consumption of water so there is a sufficient amount for all citizens." 10/1/2009.

¹⁴ Figure provided by the Coastal Municipal Water Utility.

¹⁵ Figure provided by the Coastal Municipal Water Utility.

The water crisis severely impacted the health of the population directly through dehydration and consumption of contaminated water. There has yet to be a comprehensive survey of the amount of civilians that caught diseases and were even hospitalized as a result of the lack of clean water, however there are hundreds of accounts of rashes and diarrhea that developed during the offensive. The damaged water sector will also have long-term impacts on the health of the community and the Offensive has contributed to the pollution of Gaza's underground aquifer. The destruction of water and sewage infrastructure led to mass amounts of sewage flooding into the water system in a number of areas in the Gaza Strip, particularly in certain areas of Northern Gaza where sewage flowed into water pipes because of damage caused by bombardments. The main power generator at Beit Lahia waste water treatment plant ran out of fuel during the offensive, and the CMWU only given permission to send people to the plant to refuel the generator two weeks before the cease fire.

When IOF ground troops entered the Gaza Strip south of Gaza City, they used the Gaza City Wastewater Treatment Plant as a base of operations, prior to which warplanes fired at the facility to secure the area, and tanks circled the plant. The tanks caused excessive damage by running over and crushing a 2 meter wide pipe that transports 20,000 cubic meters per day of sewage to the plant- that released around half a million cubic meters of raw sewage into the aquifer for a period of 20 days . The F16 bombardments also destroyed one sewage lagoon and its content of sewage spilled out. The damage causes was most accurate in the surrounding, which are agricultural with many wells that draw water from the aquifer.

In addition to the damage done to the infrastructure of the water sector and subsequently the impact on the health of the population, three civil servants working in the water and sewage sector were killed during the IOF attacks.¹⁶ In one case the worker was driving his car to joint his work at the sewage pump with his four children, because he believed that the sewage pump would not be a target and therefore it was safer than their home- the car was bombarded and he and his children died in the attack. In addition to the three deaths, a repair man was sent by CMWU to An-Nasser neighborhood in Gaza City to repair a 10 inch internal pipe that had been supplying water to three villages and had been damaged in an attack. The IOF fired at the repair truck as a warning for the repairman to turn around- these warning shots fired at him led to his losing his legs as well as sustaining other severe injuries.

The lack of electricity has been one of the main causes for the water crisis. The only electrical power plant in the Gaza Strip was a crucial supplier of energy to the residents of the Gaza Strip before it was bombed by the IOF in June 2006, with a production rate of 90 mg/hour. Production had fallen to 50 mg/hour since the Israeli Offensive. The damage it sustained from bombardments has not been repaired due to a lack of necessary materials. The actual electricity needs of Gaza are 250 mg/hour, however Israel limits the amount of electricity into Gaza so that there are constant power shortages. During the Israeli Offensive on the Gaza Strip IOF attacks caused major power outs through the destruction of many electricity cables as well as the limitations of industrial diesel fuel for the Gaza power plant, so that it could not function. The electricity infrastructure was severely damaged as a result of IOF attacks during the Offensive, causing cuts that continued for a consecutive period of up to two weeks in certain areas of Gaza City, and longer periods in the Northern Gaza. The lack of electricity increased the water shortages, by preventing pumps from functioning. The little electricity that was available in other areas was very weak, and the voltage was too low to power

¹⁶ COHRE, "The collapse of Gaza's water and waste water sector: Grave breaches of international humanitarian law and serious violations of international human rights law." 20 January 2009, pp. 1
<<http://www.cohre.org/store/attachments/COHRE%20WASTSAN%20Gaza.pdf>>

most water pumps. The generators, which are used during power outs, are designed to be used only for short periods of time, and the overuse of them caused great damage. Without spare parts to repair the generators once they are damaged, they become useless. Many people have extra water supplies on the roofs of their houses and they had no access to this supply because of the lack of electricity to operate the pumps.

The Right to Water under International Humanitarian Law and Human Rights Law

By maintaining effective control of Gaza and therefore remaining an occupying power, Israel remains responsible for the welfare of the civilian population and is required to respect the principles of international human rights law and the Fourth Geneva Convention (GC IV).¹⁷ Common Article 3 of the GCs states that “Persons taking no active part in the hostilities... shall in all circumstances be treated humanely”. Additional Protocol I to the GC elaborates further; “it is prohibited to attack, destroy, remove or render useless objects indispensable to the survival of the civilian population, such as food-stuffs, crops, livestock, drinking water installations and supplies and irrigation works.”¹⁸ The attacks that the IOF carried out indiscriminately on civilians, civilian homes and infrastructure are violations of the GCs. Israel directly targeted and destroyed water and sanitation infrastructure in areas where attacks were carried out. International humanitarian law prohibits the targeting of any movable or fixed private property belonging to individuals, communities, or to the states or public authorities, unless it is deemed that the destruction absolutely necessary for the success of military operations.¹⁹ The most blatant example of this targeting was the direct attack on the Gaza City Waste Water Treatment Plant on 10 January 2009. In addition to the targeting of these buildings, the killings of civil servants working at the facilities is a violation of Article 48 of Additional Protocol I; “the Parties to the conflict shall at all times distinguish between the civilian population and combatants and between civilian objects and military objectives and accordingly shall direct their operations only against military objectives.” The targeting of the facilities, as well as the staff constitutes a war crime.

On a more fundamental level, as an occupying power Israel is responsible for the welfare of the civilian population and must ensure that Palestinians have access to basic necessities such as food, water, medical supplies and shelter. Not only do civilians have such rights, but prisoners-of-war are guaranteed similar rights including access to drinking water, water for personal hygiene and sanitation under the GCs.²⁰ GC IV Article 56 stresses that the occupying power is responsible for maintaining public health and hygiene, clean drinking water and adequate sanitation being crucial. Article 59 further elaborates “If the whole or part of the population of an occupied territory is inadequately supplied, the Occupying Power shall agree to relief schemes on behalf of the said population, and shall facilitate them by all the means at its disposal”. This is a responsibility that Israel did not only fail to fulfill, but one it never even tried to respect. Because it ratified the International Covenant on Economic, Social and Cultural Rights, Israel’s obligation to guarantee all people the right to an adequate standard of living and the right to the highest attainable standard of physical and mental health is further enshrined.

At a bare minimum, Israel is under a negative obligation not to interfere with Palestinians efforts to ensure their water rights. Further, Israel carries the obligation to provide sufficient affordable and accessible clean water and sanitation services under both international humanitarian law and human rights law and has failed in meeting its obligations. In addition it has actually reduced access to sufficient clean water and sanitation services through its closure policies and incursions, most notably the Dec 08/Jan 09 Offensive. In addition, Israel has made no effort to provide any form of remedy, and continues to prevent the construction and repair

¹⁷ See Appendix 1 for full list of Articles in the Geneva Conventions and Protocols that ensure the right to water.

¹⁸ CG Additional Protocol I Article 54.

¹⁹ GC IV Article 53.

²⁰ GC III Articles 20, 26, 29, 46; GC IV 56, 85, 89, 127.

of vital water facilities by imposing restrictions on all building materials, replacement parts and much needed equipment. In fact, having been an occupying power for almost 42 years, Israel bears greater responsibilities towards the water and sanitation situation in the OPT, for it has failed to fulfill its legal obligations and ensure these rights for decades. These violations of international humanitarian law and human rights principles constitute war crimes and, given their scale and impact on the entire population, crimes against humanity as defined in the Rome Statute of the International Criminal Court, which Israel has signed but not ratified: “For the purpose of this Statute, “war crimes” means ... Intentionally using starvation of civilians as a method of warfare by depriving them of objects indispensable to their survival, including willfully impeding relief supplies as provided for under the Geneva Conventions.”²¹

²¹ Rome Statute of the International Criminal Court Part 2 Article 8.

Conclusion

The Israeli Offensive in the Gaza Strip on December 27, 2008 which continued for 23 days resulted in flagrant violations of international human rights standards and international humanitarian law. The attacks by the IOF against civilians and civilian infrastructure, including the infrastructure of the water sector constitute grave breaches of IHL, according to article 147 of CG IV as well as the Rome Statutes, and a gross violation of IHL. Israel has failed for decades to fulfill its obligation to provide the citizens of Gaza with the basic necessities needed for survival, including clean water and sanitation services. Despite the fact that it has the means and resources to do so. In addition it has actually hindered the Palestinian community from providing for itself through siege policies, military attacks and incursions, including the most recent Offensive. The power outages caused by the siege and further exacerbated by the Offensive has contributed to the lack of access to clean water, along with the direct attacks on the water sector's infrastructure. The long-term impacts on the health of Gazans have yet to be measured, but the pollution of the aquifer and the mass consumption of contaminated water will have severe consequences.

Accordingly, Al Mezan Center for Human Rights calls for the following:

1. An investigation launched into the IOF's violations of international humanitarian law and human rights standards during " Operation Cast Lead", focusing on the targeting of civilian infrastructure and in particular damage caused to the water sector. Those responsible for the attacks must be brought to justice in accordance with the provisions of international law.
2. The international community and the High Contracting Parties to the Fourth Geneva Convention assume their obligations towards the civilian population in the OPT, and compel Israel to fulfill its legal responsibilities, and respect the principles of international humanitarian law and human rights standards.
3. To ensure the opening of the border checkpoints to allow in materials needed for the reconstruction of the Gaza Strip, in particular the uninterrupted entry of materials and equipment for infrastructure in the water sector, and to prevent Israel from continuing to impose collective punishment on the residents of the Gaza Strip.
4. To work to ensure that the Gaza Strip fuel needs, particularly for the operation of the power plant, are met so as to be able to delivery of sufficient clean water to citizens.
5. To increase efforts to improve the water situation in the Gaza Strip, in particular the provision of clean drinking water to citizens.
6. To focus efforts to repair the water and sanitation infrastructure as quickly as possible, as well as build new facilities, in order to avoid any further interference with sewage water.
7. To resume donor funding for projects in the water sector, and to exert pressure on Israel to ensure that the aid efforts are not foiled by its closure policies and military attacks.

Appendix 1

List of Articles in the Geneva Conventions and Protocols that ensure the right to water

Geneva Convention IV (1949) - Protection of Civilian Persons in Times of War

Article 85

The Detaining Power is bound to take all necessary and possible measures to ensure that protected persons shall, from the outset of their internment, be accommodated in buildings or quarters which afford every possible safeguard as regards hygiene and health...Internees shall have for their use, day and night, sanitary conveniences which conform to the rules of hygiene, and are constantly maintained in a state of cleanliness. They shall be provided with sufficient water and soap for their daily personal toilet and for washing their personal laundry; installations and facilities necessary for this purpose shall be granted to them. Showers or baths shall also be available.

Article 89

Sufficient drinking water shall be supplied to internees.

Article 127

The Detaining Power shall supply internees during transfer with drinking water and food sufficient in quantity, quality and variety to maintain them in good health, and also with the necessary clothing, adequate shelter and the necessary medical attention.

Additional Protocol I (1977) - Protection of Victims of International Armed Conflict

Article 54

1. It is prohibited to attack, destroy, remove or render useless objects indispensable to the survival of the civilian population, such as foodstuffs, agricultural areas for the production of foodstuffs, crops, livestock, drinking water installations and supplies and irrigation works, for the specific purpose of denying them for their sustenance value to the civilian population or to the adverse Party. 2. The prohibitions in paragraph 2 shall not apply to such of the objects covered by it as are used by an adverse Party: (b) - If not as sustenance, then in direct support of military action, provided, however, that in no event shall actions against these objects be taken which may be expected to leave the civilian population with such inadequate food or water as to cause its starvation or force its movement.

Article 55

1. Care shall be taken in warfare to protect the natural environment against widespread, long-term and severe damage. This protection includes a prohibition of the use of methods or means of warfare, which are intended or may be expected to cause such damage to the natural environment and thereby to prejudice the health or survival of the population.

Additional Protocol II (1977) – Protection of Victims of Non-international Armed Conflict

Article 5

b. Persons whose liberty has been restricted...shall, to the same extent as the local civilian population, be provided with food and drinking water and be afforded safeguards as regards health and hygiene.

Article 14

It is therefore prohibited to attack, destroy, remove or render useless for that purpose, objects indispensable to the survival of the civilian population such as food-stuffs, agricultural areas for the production of food-stuffs, crops, livestock, drinking water installations and supplies and irrigation works.

Geneva Convention III (1949) – Treatment of Prisoners of War

Article 20

The Detaining Power shall supply prisoners of war who are being evacuated with sufficient food and potable water, and with the necessary clothing and medical attention.

Article 26

Sufficient drinking water shall be supplied to prisoners of war.

Article 29

The Detaining Power shall be bound to take all sanitary measures necessary to ensure the cleanliness and healthfulness of camps and to prevent epidemics...Also, apart from the baths and showers with which the camps shall be furnished prisoners of war shall be provided with sufficient water and soap for their personal toilet and for washing their personal laundry; the necessary installations, facilities and time shall be granted them for that purpose.

Article 46

The Detaining Power shall supply prisoners of war during transfer with sufficient food and drinking water to keep them in good health, likewise with the necessary clothing, shelter and medical attention.

Available at http://www.righttowater.info/code/Legislation_3.asp