

# Report on the environmental and agricultural impact of the Israeli war on Gaza



العربية لحماية الطبيعة  
Arab Group for the Protection of Nature



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The damage and negative consequences of the Israeli war on Gaza is not limited to the number of martyrs and wounded people, the destruction of houses and the infrastructure, but have also reached earth and the environment. In other words, the war has destroyed the foundations of life itself. The aggression has increased the suffering endured by the people of Gaza, already suffering from seizure and control over fresh water and other energy resources such as gas and electricity, not to mention the destruction of trees, plants and the agricultural land itself and the damage made to the sanitary network. Life, under these conditions, has become death for a million and a half Palestinians living in the Gaza Strip, with people being killed not by life ammunition but by denying them the basics of life. Moreover, it has become clear that the Israeli army is using weapons that are prohibited by international law such as phosphorous and cluster bombs, chemical and biological weapons all which contaminate the environment in Gaza.

This report, has been prepared by the Arab Group for the Protection of Nature and included facts gathered from many other reports. It highlights in details the size of environmental damage inflicted on Gaza Strip during war and siege period, impacting the lives of the people and their livelihoods.

With regard to the agricultural sector, there is a large damage made as indicated by the table below:

No.	Damage to agriculture	Losses
1.	(Fruit trees (citrus, olives, fruit)	acres 5150
2.	Irrigation networks	acres 4980
3.	Full destruction of agricultural greenhouses	acres 450
4.	Liberated agricultural greenhouses (in areas previously used as settlements) - completely removed	acres 700
5.	Partially damaged agricultural greenhouses	acres 225
6.	Major water networks for irrigation 110 mm	meters length 47,500
7.	Fully destroyed water wells	wells 185
8.	Cement water reservoirs	water reservoirs 230
9.	Bulldozing of grain crops (farming fields -not irrigated)	acres 4900
10.	Open field vegetables	acres 4450
11.	Poultry farms - meat and eggs (size between 100-5000 birds)	farms 175
12.	(Sheep farms and cattle farms (size between 5-200 heads	farms 285
13.	Rabbit farms	farms 85
14.	Duck farms	farms 15
15.	(Water reservoirs (1000-1500 liters	tanks 680
16.	Agricultural tools stores	tanks 125
17.	Plant nurseries	nurseries 16
18.	Agricultural roads	km length 75
19.	Raspberry production	acres 2000
20.	martyrs killed by snipers while working in their land	30

**These losses were incurred during the war.**

## Solid wastes

There is also great fears arising from solid wastes resulting from the demolition of a large number of buildings, considered as a source of environmental pollution. This problem becomes further complicated in the presence of explosives and hazardous materials resulting from the bombing of building that are still hidden under the debris, and pose a major threat to the life, health and safety of citizens. There is also fear of environmental pollution, especially water reservoirs, and the deterioration of the environmental systems affecting fish and plant species and loss of employment for a large number of the people in Gaza who depend on nature in their livelihoods such as farmers and fishermen.



## Drinking water

Water sector in Gaza suffers a number of damages summarized as follows:

- An acute shortage of drinking water, as an environmental source, resulting from Israeli's control over water
- The high ratio of chloride in some areas reaching up to 1500 mg/liter.
- The high ratio of salt in wells water which makes it unfit for human consumption in south-east areas and parts of the central area
- The ratio of sulfur has reached to more than 900 ppm, a ratio which can cause skin diseases
- The ratio of fluoride reached up to 8.0 - 8.3 ppm,
- The ratio of nitrate, which causes cancer (according to samples taken from a number of wells in a study conducted in the period of 87 – 1989)
- Increased bacterial contamination of drinking water due to the lack of chlorine.
- The destruction of a large number of water tanks.
- Sewage and wastes of settlements, residential and industrial areas are being deposited in the Palestinian territories.
- The destruction of more than 288 fresh water wells since the beginning of the occupation.
- Israel currently controls more than 85% of Palestinian water resources and this control reduces the average Palestinian per capita share to less than 85 cubic meters per year.
- Occupation forces capture groundwater in the area located between the Green Line and the Gaza Strip to pump it for use in it agriculture and to inject its underground reservoir.

□ Destroying the carrier pipe between the al-Mighraqa wells and the city of Nuseirat when Israeli aircraft bombed the pipe.

line, located along the Zahra'- Nuseirat bridge thus depriving some 30,000 residents of Nusairat city from water.

□ The complete destruction of the Idara well east of Jabalya City and the death of well operator when Israeli shelled the east of the town of Jabalya, thus depriving people living east of Jabalya from this important source of water, which pumps water to about 25,000 people.

□ The destruction of the 12-inch steel line which provides residents of Gaza City, from some of its wells in the northern region, 40% of the total water production of Gaza City and thus depriving about 200,000 people from a major water supply source.

□ The total water consumption of 150 million cubic meters is pumped by the main underground coastal reservoir. About 62 million cubic meters of this quantity, is used annually for domestic consumption. The Palestinian per capita share is 80-90 liters per day, compared to Israel's per capita of 250 liters per day, before the bombing of Gaza Strip.

## Sanitation

□ The lack of diesel to operate sewerage treatment plants

□ The destruction of some sewage treatment plants.

□ Because the Israeli army is present in Netzarim area, the sewage treatment plant in Gaza City, in the south of Sheikh Ajlin, has completely ceased to operate and there is no way for disposal of sewage in the sea, a problems which will create a humanitarian , health and environmental disaster because basins may break down at any minute thus endangering the lives and property of surrounding areas of sewage flooding.

□ Destruction of sewer line in the town of Beit Hanoun, which is still and until today represents a health problem for the people because the water authority couldn't repair it.

□ Targeting the electricity generator of the sewage plant in al-Mashrou' area in Beit Lahya, which made the water authority unable to collect sewerage water from surrounding area.

□ Sewer lines suffer many problems in Beit Lahya as a result of the non-stop shelling.

## Energy

□ The poor quality of food provided to patients, resulting from the lack of natural gas in kitchens.

□ Lack of fuel supply to electricity generating stations resulting from the closure of Nahal al-Oz Crossing, which affect medical devices provided to people.

□ Central laundries stopped working and this might lead to the spread of infections among patients because towels, sheets and medical equipment are not cleaned.

□ Disruption in computers especially in al-Nasr and Abu Yousef al-Najjar and Naser hospitals.

□ Wastewater treatment plants stopped functioning.

□ Equipment needed for intensive care and children and adults nursery can't be used.

□ Shelling Sheikh Ajlin well ((the preventive security well )) and depriving some 40,000 residents of south-west Tal El-Hawa and residential towers surrounding the well from water supply.

□ The massive seizure of gas reserves in Gaza coastal waters discovered in year 2000 and administered by two companies (British Gas, Consolidated Contractors International Company (CCC).

□ According to UN sources, 362 thousand liters of fuel entered Gaza and 270,118 liters of diesel, which enabled the energy authority on 10 January to distribute fuel for the first time after its closure on 30 December 2008, when all fuel supply was consumed.

## **New deadly weapons**

Israel has used new and deadly weapons against Palestinians and these weapons have had a significant impact on the environment and people's health. One of these weapons is the DIME, considered one of the deadliest weapons that kills, burns, mutilates, and causes cancer in a very short period of time ranging from one to six months after which the patient dies. Israel has also used internationally banned weapons such as the white phosphorus, which filled the sky of Gaza, like fireworks and which leads to serious burns, causing incidents of inborn disorders, affects the mental health of patients and especially children. The white phosphorus is a white semi-transparent material with a yellow like color and is similar to wax. It has the smell of rotten garlic. When the phosphorus shells hit the ground it fragments into 100 shells covering a huge area of 250 meters and it burns anything that comes under its way: civilians, property and infrastructure.



When an area is polluted by white phosphorus, the whole environment suffers: water, soil, air and people, animals and agriculture. Air gets polluted by the gas resulting from the burning of phosphorus, which is considered as a toxic gas; a gas which leads to severe health problems affecting the respiratory and nervous system especially among children and the elderly. Waters too get contaminated and phosphorous material leaks to soil, rivers, seas. It also affects fish, considered as an important source of nutrition for the people in Gaza. People too suffer as a result of consuming contaminated fish and if they swim in the sea. With regard to biodiversity, the use of phosphorous destroys the natural ecosystem of animals and plants and contaminates agricultural products through the food chain.

It has become evident that Israel is using an unusual yellow tear gas which irritates the eyes for a long period of time. It was not possible to obtain samples of this gas to analyze it and to examine its impact and thus condemn Israel for using it against civilians.

## **Agricultural land:**

- The spread of agricultural diseases due to lack of fertilizers and pesticides.
- The prevalence of certain diseases in livestock as a result of the lack of vaccines and serums.
- The confiscation of farms and olive trees, as a result of forced displacement of Palestinian people.
- Bulldozing some of the land for settlement activities.
- Bulldozing Palestinian irrigation systems.
- Destruction of the Palestinian vegetation areas as a result of sewage and wastes of the Israeli settlements.
- Since the beginning of occupation more than 500 thousand trees were uprooted, 80% of them were olive trees.
- Bulldozing and destroying 90% of the green areas in Palestine.
- Damaging 75 thousand dunums of land planted with olives in the West Bank.
- Occupation authorities does not allow rain water inside the Green Line to enter Gaza Strip by creating water catchers and special reservoirs leading to drought in Gaza valley.
- After the disengagement from Gaza, only 43 thousand acres of land planted with orange trees continued to exist. This area was about 90 million square meters in 1967.
- The theft of agricultural soil from Gaza Strip – 200 thousand cubic meters in Deir al-Balah.
- The theft of sand and selling it in Israel. This theft has its impact on agriculture because sand is important for capturing rain water in winter.
- Shelling agricultural land east of Khan Yunis.



## **Lack of resources and medical supplies:**

- Arresting fishermen, cutting their nets, drowning their boats and preventing them from sailing.
- The lack of medicine, especially for patients with high blood pressure, heart problems, asthma, diabetes, cancer, kidney failure and liver as a result of the closure of the crossings.
- The lack of medical consumables (spare parts, supplies, sterilization materials, surgery equipment). The shortage reaches up to more than 30%.
- The lack of solvents, dyes and supplies needed for laboratories to diagnose diseases.
- The lack of sterilization equipment and spare parts for ambulance cars.

## Wastes and other contaminants

- The dumping of hazardous and toxic materials in the Palestinian territories.
- Relocating contaminating industries from Israeli residential areas to the borders' areas close to Palestinian residential areas.
- The threat posed by the old nuclear Dimona reactor for all the region's people.
- 28% of the Palestinian areas suffer from waste collection problems because of the siege obliging people to burn these wastes – an practice described by the Palestinian Bureau of Statistics as unhealthy.



- Occupation forces impede the transfer of technology to treat solid wastes produced by the Palestinian industrial sector.
- 230 barrels of chemical waste were found buried in Um al-Tout in Jenin province in 1999.
- The spread of radioactive contamination as a result of the Israeli nuclear activity. As a result the number of people suffering from cancer in Palestine has increased, especially in Beersheba.
- Israel transported a big quantity of wastes to Dair Sharaf village which pose a threat to five wells surrounding waste dumping area.
- Fuel storage tanks and pipes may result in excess fuel leaking into the soil.
- Evaporation of toxic gases from the contaminated land and groundwater

## Wildlife

Reports indicate that there is a possibility of global warming in the Gaza Strip as a result of heavy shelling. Compacted and contaminated clouds were clearly seen in a series of mountain areas in West Jerusalem, Ramallah and Bethlehem as a result of explosive used. This indicates that these explosions, that have been witnessed for the first time ever since the Israeli occupation in 1967, have their impact on the region. It is certain that this pollution will affect the wildlife and bird migration, particularly as the spring migration season is nearing with millions of birds coming from Africa back to Europe through Palestine.

Based on the above facts, and the damage made before and after the war on Gaza, the Arab Group for the Protection of Nature and its regional and international civil society organizations allies, demands prosecuting the perpetrators of these crimes against the land and the people in the Gaza Strip. We demand compensating people for the damage made, and we further call on all international bodies to rehabilitate the land and farms destroyed by the Israelis and to promptly send a fact-finding missions to monitor violations

## Sources:

Habi Center for Environmental Rights in Egypt  
The Palestinian Farmers Union  
(The International Union for the Preservation of Nature (IUPN)  
(Jordan Environment society (JES)  
Palestine Wildlife Society  
Palestinian Agricultural Relief Committees