

Let's Talk About Gaza

The Beach in Gaza as the Sole Space for Leisure

August 2015

It is an exceptional summer day in the Gaza Strip, with the temperature reaching 45°C and a humidity level of 70%. There is a lack of electricity for more than 20 hours a day, closed borders with the outside world, and a constantly increasing poverty, which makes it hard to find a place to breathe and find release. The beach is the only space which allows Gazans to get oxygen. In an interview with Bessan Shehada, Project Coordinator of the Rosa Luxemburg Stiftung Regional Office Palestine (RLS) in the Gaza Strip, Dr. Ahmed Hilles (PhD. Environmental Health and Sciences) says Gaza's beaches have become the main public space people use to get away and find some leisure.

The Gaza Strip is located on the south east section of the Mediterranean Sea. The length of the Gaza's shore is about 41 km. The width of the strip ranges between 5 km in the middle to 8 km in the north and 12 km in the south. The Gaza Strip is delineated by the Green Line with Israel from the north as well as east. On the south and on the west, Gaza borders Egypt.

What are the reasons for pollution in the sea?

The total population is approximately 1.8 million inhabitants in a total area of 378 km², with an annual population growth of 4.5%. Most of the wastewater treatment plants (WWTPs) in Gaza are overloaded, working beyond their designed capacities. According to the Coastal Municipalities Water Utility (CMWU), about 89 million liters per day (MLD) of untreated or partially treated sewage is discharged into the sea, made up of 69 MLD of partially treated sewage and 20 MLD of raw sewage. The lack of proper wastewater treatment facilities leads to the discharge of untreated or partially treated sewage directly to the seashore and indirectly through Wadi Gaza from refugee camps located in the central region of Gaza (Nuseirat, Bureij, Maghazi). Many discharge points are registered along the shoreline in Gaza.

How is sea pollution a danger for swimmers in the sea?

Microbiologically contaminated seawater has been found along the coast of Gaza and there is evidence of sanitation-related infections in the sea of the Gaza Strip. The 41 km of shoreline is already under intense pressure, with substantial environmental degradation of terrestrial and marine resources.

What disease can swimmers catch if they swim in this polluted water?

I wrote a research article about this in 2014 called "Assessment of Parasitic Pollution in the Coastal Sea Water of Gaza city." The results show that about 48% of the seawater samples

from the shoreline region of Gaza City were contaminated with parasites. The parasitic species found were: *Ascaris lumbricoides*, *Giardia lamblia*, *Strongyloides stercoralis*, *Hymenolepis nana*, *Entamoeba histolytica/dispar*, and *Cryptosporidium parvum*. These parasites cause many diseases like the unpleasant, gastric, diarrheal illness known as cryptosporidiosis. This can cause alarming public health problems, particularly for people with weakened immune systems and especially Acquired Immunodeficiency Syndrome (AIDS) patients. People who have a weakened immune system who experience protracted diarrhea can suffer for months with considerable weight loss and even mortality. Additionally, a number of the skin diseases are a serious problem for the people who swim in the sea, especially for children who already have malnutrition because of the high level of poverty.

What was the conclusion of this research?

The observations of the study revealed a high level of parasitic pollution in most of the points which were investigated along the Gaza City coast line, as indicated by the high prevalence of human gastrointestinal parasites. The pollution was due to the direct disposal of wastewater into the sea and beach sand without treatment or only partial treatment.

How do you see the environmental situation in general in the strip?

The environmental situation in Gaza is dangerous and the pollution is everywhere in our lives. We are suffering from a high number of serious problems here that need to be solved very soon. The environmental situation during the last 10 years has been a real disaster. The three aggressions Israel has conducted against Gaza did not only kill people, they also destroyed the infrastructure. Another problem impacting the environment is the internal political conflict which caused international donors to stop funding projects to the Gaza Strip. As a result, many environmental projects have stopped. This is an important problem because there has been no enhancement or development of the existing services while the population growth has been 4.5% every year. We cannot build a country with sick citizens. Therefore under these circumstances and the bad situation we are living in, if nothing changes I see a very dark future for our children.