

Will Aquaculture Help Preserve Fish in the Gaza Strip?



By Samar Al Dreamly
Translated from Arabic by Rania Filfil

compensate for the shortage of fish in Gaza's market that comes as a result of Israeli restrictions on access to the sea for Palestinian fishermen. aquaculture projects have recently been established. One of these fish-farming projects started with four small aguariums that housed 300,000 fish in an area covering 3 dunums (3.000)square meters) and at an initial cost of US\$400,000. Today, this farm has grown into a lake that covers 13 dunums and hosts 1,300,000 fish - all at a mind-boggling cost, to use the owner's words. In 2015, Khaled Sarhan, CEO of Fish Fresh Pool, located at Tel-Jenan in the southern Gaza Strip, emerged with this project - a modest beginning - from the stagnation of the fishing industry in the Gaza Strip, and through funding

provided by USAID. The project has since developed to produce around 350 tons of sea bream and sea bass per year.

Sarhan admits, "I owe it to Allah, as initially I had not expected my aquaculture project to succeed. But now I have even been able to open a restaurant next to the ponds. Every day, we receive tens of customers who come to enjoy the fish produced by the farm. Many of them buy fresh fish on a daily basis," he added. The project currently employs 23 workers in aquaculture and 17 in the restaurant. Moreover, the farm has forged annual contracts for fish distribution with the key stores and restaurants in Gaza City and the surrounding areas, with some of them buying between 500 kilos and one ton of fish a day. Sarhan explains that he imports the live-bearers from Israel and raises them to grow into

For Palestinians in Gaza. fishing constitutes a paramount economic sector and a major contributor to the GDP. Statistics published in November 2016 by the **Ministry of Agriculture** reported 3.600 fishermen and 500 other workers employed in various fishing-related industries. Fish is also important for food security since it is a key source of animal protein.



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big, marketable fish; he points out that the quality of his fish is comparable to that of Israeli products. Sometimes he buys the live-bearers from Emad Kuheil, who breeds fish in Gaza.

Sarhan notes that the purchase of fish has been in decline since incomes have been reduced due to the restrictions imposed by the Palestinian National Authority on its employees. But nonetheless, he asserts, "things are generally good." He explains that the electricity crisis in the Gaza Strip is the key challenge that he faces, since any power cut for only 15 minutes would kill all his fish. Thus, he had to purchase two very expensive power generators, which he operates for 16 hours a day. Because the cost of fuel per hour amounts to US\$100, he subscribed to an Egyptian electricity line at the cost of US\$100,000.

Kuheil, the owner of a fish hatchery and a seafood restaurant at the Gaza beach, started his breeding industry 12 years ago by importing live-bearers from Israel to build his farm. He breeds sea bream, which is in high demand. Having produced five other species —

among them tilapia, European bass, and grev mullet - for four years, he had to stop hatching them because of the low demand in the local market for these fish. Today. Kuheil has settled on only the production of sea bream. and he distributes fish to the central fish market and local restaurants. He explains that sea bream is the only profitable type because it is not available in the Gaza Strip, as it can only be fished beyond 12 nautical miles, whereas local fishermen can only access 4 nautical miles due to restrictions imposed by the Israeli occupation.

The director of the fish-hatching department at the Ministry of Agriculture, engineer Waleed Thabet, notes that there are three sea-bream hatcheries operating in the Gaza Strip, in addition to a pilot hatchery for the production of shrimp. He explains that fish are hatched in a clean environment that conforms to standards specified by the Ministry of Agriculture. The process involves digging a water well in each farm to access saline water - as close as possible to the seawater. Seawater is pumped into the aquariums that are monitored and cleaned round the clock.

Gaza's citizens have confirmed in interviews that they prefer fish to meat because it is a healthier food choice. However, the high prices frequently discourage them. They opt then to buy fish raised in fish farms, as these are cheaper than those fished directly from the sea. Fish sale points are spread over five harbors, each called a hisba (central market). They cover the five governorates of the Gaza Strip (North, Gaza City, Deir Al-Balah, Khan Younis, and Rafah). The sea of Gaza is known for its sardines, tarragon fish, mullets, red mullets, marmer, mackerel, grey mullets, shrimp, and gilt-head bream. The most popular fish is the sardine, which is sold at NIS 20 per kilo. Next come bream and Spanish mackerel, which are sold at NIS 30 per kilo. The mackerel is found

after the rock chain at the sixth nautical mile, beyond which Gaza's fishermen are not allowed. Thus, it is a rare fish, which explains its high price.

Fishing in the Gaza Strip faces several problems caused by the Israeli occupation, most notably noncompliance with signed agreements. Israel imposes non-fixed borders by force and unilaterally revises the allowable fishing areas. For example, following the Israeli war against the Gaza Strip during December 2008 and January 2009. Israel narrowed the allowable fishing area to three nautical miles, which jeopardized the survival of Gaza's fishing sector. Many boats were prevented from sailing, and the resulting repercussions affected mostly the small fishing boats that had to stop fishing sardines, which used to represent 40 to 70 percent of the total fish production. The situation has fluctuated significantly over the past years, moving between restricting the fishing area to as few as three nautical miles and temporarily extending it to as many as nine nautical miles in selected areas. Most recently, in May 2017, the area was extended to nine nautical miles, but in December 2017, it was restricted to six miles, all of which falls significantly short of the 20 nautical miles agreed upon by Israel and the Palestinians in the Oslo Accords.

Other illegal measures have included the shooting and/or arrest of fishermen, and the confiscation of their boats. Spare parts for fishing boats are lacking because of the siege imposed on the Gaza Strip. Furthermore, Gaza is not allowed to export fish to the West Bank, Israel, or any other area. In addition, because its access is restricted, the fuel to operate boats is prohibitively expensive. While Israel frequently uses the firing of rockets from Gaza into southern Israel as an excuse for its measures, it has

consistently failed to explain how fishing is related to the firing of rockets or how these restrictions would serve to prevent rocket fire, rendering them punitive measures against the entire population of Gaza, in violation of international law.*

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Article photos by Shareef Sarhan.



"See also UNRWA, "Gaza Fishermen: Restricted Livelihoods," July 19, 2016, available at https://www.unrwa.org/newsroom/features/gaza-fishermen-restricted-livelihoods; and Gisha – Legal Center for Freedom of Movement, July 6, 2014, available at http://gisha.org/updates/3014.