

## **The fish wealth is in a state of decline Excessive fishing in the Gaza Strip....Reasons and consequences**

By work team

### ***Introduction***

*Marine environment is considered one of the main sources for supplying human beings with animal protein. Citizens of the Gaza Strip depend on sea fish as a main source of food especially Sardine, like other types of fish it enjoys high demand in the Palestinian market. The location of the Gaza Strip shores on the Mediterranean Sea is known as the most deteriorated marine environment in the world. It is also a semi closed sea and a stage for the Israeli direct or indirect suppressive practices against Gaza fishermen. The Israeli practices are represented in restricting the Gazan's fishing zone to a small area, preventing them from practicing their work freely, destroying and confiscating their fishing gear, arresting and assaulting them.*

*The fishermen themselves have some wrong full common fishing practices like using floor dragging nets , explosives and toxic materials that has destructive impact on the sea water and the entire marine life. Fishing seasons are not defined, and the consequences are adopting the excessive fishing methods in order to try catching the largest quantity of fish, while undermining the marine environment and the damage caused to it.*

*Such situation has had its negative impact on the marine environment in Gaza and it played a role in destroying the diversity of marine life and fish population, and exposing it to the threat of extinction during the coming years, especially the Sardines, as a result of the continual use of the excessive fishing techniques.*



*Fish is the main source of animal Protein in the human diet.*

### ***Fishing ... safe fishing ... and excessive fishing.***

Fishing is identified as the process of pulling fish out of their environment for the purposes of consumption. There are two methods of fishing, the first is known as safe fishing, which is catching fish in an organized manner that does not leave any negative impact on the marine environment. Safe fishing takes into consideration leaving adequate numbers of fish in their habitat for the purpose of reproduction, without overusing the fish stock. The other fishing method is known as the excessive fishing, it is marked by irresponsibility and causes decreasing population of marine

life, hindering its ability to reproduce at adequate rates to maintain adequate population, the fact that might lead to the extinction of many marine species, especially when fishermen use toxic substance like Lannate and other chemicals used in farming, the utilization of dragging nets, explosives and cage traps without any regard for the fishing seasons. All of the above are excessive fishing methods used in the Gaza Strip. The worst of all is seed fishing, which is sold with very cheap prices. Excessive fishing methods are divided into two groups; the first endangers the adult fish that can reproduce and resulted in smaller number of fertile fish eggs. The other group endangers young fish that need more time to grow.



**The Lannate that destroys marine environment& a fishermen catching tiny fishes**

According to the available data, the quantities of fish harvested in the year 2006, have reached 2323 tons, whereas in 2003 the quantity of harvested fish have reached 1507 tons. Besides the Israeli restrictive measures practiced by the Israeli navy against Gaza fishermen and preventing them from fishing freely, this fact shows the rising use of excessive fishing very clearly specially the phenomena of fishing for fish seeds.

### ***Reasons behind the rise of excessive fishing problem***

Excessive fishing is considered one of the most serious threats to seas and oceans around the world. The shores of the Gaza Strip are not isolated from the rest of the water surfaces therefore it clearly suffers the same problems that endanger the fish wealth and may destroy it in the near future. Reasons for excessive fishing at the shores of Gaza have accumulated due to the severe restrictions and the problems that has led to the rise of such phenomena, and brought it to the extent, where serious intervention of the concerned authorities is badly needed.



**Using unsafe types of nets is considered one of the excessive fishing techniques**

### ***Bigger quantities of fish or environmental damage?***

Palestinian fishermen are subject to many difficulties and obstacles as they are performing their work. They incurred great losses as a result of the Israeli navy assaults against them while they are on sea. Fishing boats and fishing gear are destroyed, boat engines are stolen, fishing nets are damaged and the sea is often closed by the Israeli occupation forces. Fishing is often prohibited for long periods of time and fishing zones are extremely restricted. Fishermen incurred severe losses also as a result of the high cost of operation and labor. they are driven out of business more than once every year. All the mentioned above factors have forced the Palestinian fishermen to undermine the environmental aspects and focus only on collecting a quantity of fish that might compensate for some of their losses. On the other hand fishermen have not had the opportunity to be trained to use environmentally friendly high tech devices utilized in the fishing process due to their high cost and the unavailability of such devices in the local market as a result of the border crossing closure.



**What matters is the quantity of fish without any regard for the marine environment**

### ***Fishing beyond three marine miles is prohibited***

The agreements held between Israel and the Palestinian authority limits the Palestinian and the regional marine activity on Gaza shores to 20 marine miles. Yet Israel, ignored those agreements, and did not allow Gaza fishermen to sale far enough but restricted them to 12 marine miles on one occasion. On other occasions they were restricted to 6 or 7 miles however, the distance kept on shrinking. Fishermen now are not allowed to sale further than 3 marine miles. The sea is often closed in their face under the threat of the Israeli armed navy. The result was a concentration of more than 3600 fishermen activity within those few miles that does not have adequate fish to begin with.



**Fishing boats are lined up on the beach due to the sea closure**

## ***Environmental awareness for fishermen, Monitoring, penalties, law enforcement***

Gaza fishermen adopt excessive fishing methods due to the absence of all means of monitoring their activity by any specialized body; no one inspects their fishing techniques or fishing gear. The laws that oblige fishermen to adopt a specific fishing technique or fishing for certain types of fish are not enforced, yet the most serious problem is that fishermen lack for the sound environmental awareness that helps him to conserve the environment and prevent them from using the excessive fishing gear or method, and refrain from harming the marine environment or the fish wealth.

Fishermen's' violations against marine environment



**Fishing in a polluted area**



**Fishing endangered sea turtle**

Fishermen use a number of unsafe fishing techniques during their work, which puts the marine environment at a continuous risk of guaranteed destruction, like fish seeds fishing that causes the death of numbers of Sardines during a short period of time, and the use of poisons such as Lannate and some pesticides and explosives that kill the fish and make catching them easy. Fishermen blow up the fish habitat and destroy the rock formation in which they reproduce, killing great numbers of them and destroying huge number of fish eggs. Such techniques have serious consequences on the marine environment and the health of humans.

In addition, fishermen use large numbers and various types of boats especially the bulldozers that chase fish away and cause its migration, destroy its safe habitat that contains the fish eggs. Constructing artificial fish habitat is also a wrong practice commonly used by fishermen. This method is represented in dumping bodies of dead cars and old tires to provide a gathering place for fish to facilitate catching them. Some fishermen used engine oil on the nets to chase away dolphins that attack the nets in the deeper areas and utilize the technique of dragging nets which is used at short distances from the beach, in the form of layers with narrowing openings; they act like curtains and pull every thing that gets stocked in them. Some fishermen use cage traps to fish in basins and shallow waters without any regard to the fishing seasons, the fact that prevents the fish from growing to adulthood and hinders their reproduction.

### ***Excessive fishing ... environmental and health hazard***



**Fishermen using explosives**

Excessive fishing methods adopted by Gaza fishermen cause numerous environmental and health problems and leaves behind serious impact on environment and public health. Poaching fish leads to destroying the biological diversity in the Mediterranean basin's environmental system and negatively impact the marine food chain. They destroys the fish wealth as a result of killing the fish seeds and eggs, which leads to the loss of a food source for human beings and the increase of environmental chemical pollution rates.



**Fishing by using poison is a public health hazard**

The excessive quantities of pesticides and chemicals used by fishermen to kill fish in order to catch them, results in depositing heavy minerals in the fish tissue. Such minerals are transferred to human beings when they eat the contaminated fish or swim in the polluted sea water. The most hazardous mineral is Mercury, which destroys the brain cells and lead that impacts the neurological system. Other used chemicals may cause kidney failure and expose human beings to serious illnesses resulted by chemical pollution like skin infection and cancer.

### ***Recommendations to prevent excessive fishing***

Excessive fishing leaves serious impact on the marine environment and the public health. The phenomenon of excessive fishing in the sea of Gaza has been growing. It is now considered beyond dangerous. The entire fish population is endangered and the total destruction of fish wealth is possible within a few years. Prompt and strong action to prohibit excessive fishing is necessary. Specialized bodies must be formed to

enable the concerned parties from monitoring the activity of fishermen along the shores of the Gaza Strip.

It is necessary to inspect the fishing equipment used by fishermen and prohibit fishing during the reproduction season to maintain the normal rates of fish reproduction. Penalties must be strictly enforced on any fisherman that commits such serious violation.

The international community must exert more pressure on the Israeli Occupation Forces to stop them from closing the shores of Gaza in the face of Palestinian fishermen and stop them from violating their right to work freely and force them to respect the agreements and the laws that define the areas of fishing. The concerned organizations must design environmental awareness programs for fishermen and to bring to their attention the impact of excessive fishing on marine life and public health. There is a serious need to activate and enforce the domestic laws concerned with fishing and protecting the marine environment, and finally it is important that the donor countries support the fishing sector in general and provides it with environment friendly modern techniques and develop the fishing activity and bring it to the international technical standards.