1. Introduction

In 2003, the fisheries with an increasing importance for the provision of human food realized a global production as 146.3 million tons, 91.5 million of which is from fishing and 54.8 million tons from rearing. The production of 89.6 million tons in 1989 started to decrease until 1991. In 2002, this amount has increased to 96.7 million tons and then decreased again to a level of 91.5 million tons in 2003. Briefly, the global production within 15-20 years is around 90 million tons and is foreseen to be within these limits. This increase in the fisheries over the years is emanating from the culturing activities. In fact, despite that the amount of products gained from fishing has not significantly changed over the last 15 years; culturing activities have realized considerable increases.

Similar developments have occurred in parallel with the global changes. Fishing efforts which started to enhance in early 1980s caused overfishing. Despite the increase to a level of 671.9 tons in 1988, severe decreases were experienced in the subsequent years. As a consequence, the amount of production in 1990 and 1991 was realized less than 400 thousand tons. Simultaneously, there were dramatic decreases in the anchovy stocks which corresponded to more than half of the marine fish culture in Turkey. In 1988, anchovy catch was realized as 310.3 thousand tons and then it decreased to 74 thousand tons in 1990 (Figure 1).

This situation has essentially influenced more than twenty public and private factories producing anchovy-based fish flour. Most of these factories were closed and a few of them had to change the domain of their business activity.

When the statistics are examined, it is noticeable that limit values of fishing, which are around 500 thousand tons, have been attained in Turkey as in the world. Undoubtedly, the reliability of the statistical data is also important within this context. It is known that due to various concerns, generally the fishermen have the tendency to show the amount of catch less than the actual amounts.

Even though the statistics are closer to the accurate figures, the focal problem is on the sustainable catch of fishery stocks that can be possible by controlling the fishing fleet in such a way to make it exploit the stocks in an optimum and continuous manner. However, when we consider the last 15 years, we can notice that there were 8749 vessels in 1990 and 18542 in 2003. In addition to the increasing number of vessels, their length and engine power were also upgraded. They have been equipped with advanced technology such as fish finders.

2. Problems and recommended solutions

1- On the way to access the European Union, all organizations having links with the sector have to cooperate and should have a holistic approach to the problems faced in the fisheries sector which are due to the structural malfunctioning. Otherwise, it is impossible to achieve the goals which might be ending up with severe economic losses. Solid researches should be conducted for the stock management, and the protection and control services, and policies should be devised accordingly. That the research activities in the country are equipped with accurate dimensions and features capable of providing nation-wide fishery policies is of great importance. Local organizations should actively be involved in the sectoral activities by establishing coordination.
with the central authorities for the purpose of processing the information received properly, and of reaching immediate and accurate decision. With the realization of all the above—mentioned items, assembly of the scattered structure of fisheries sector under one single umbrella shall be possible with the establishment of an autonomous General Directorate of Fisheries.

2- The stock size of important commercial species and the changes in the stocks should be monitored over time. There is not a system available at the fish market halls and at the points of landing to come up with accurate figures of catch statistics (amount of products marketed). The statistical findings are shadowed with suspicions. There is a need to establish a structure which is allowing for regular recording of the amount of landed catch by the local units, and for monitoring of biological data of important stocks for specific periods.

3- The increase in the fishing fleet is continuing. Although the amount of products from fishing is less than the amount gained in 1988, the number of vessels (8704) has increased by two folds. This has not remained as a numerical increase. The length and engine power of vessels have also been upgraded. Advanced equipments such as fish finders are also available on the vessels. Fishing pressure is increasing in parallel with the catch per unit effort. It is necessary to decrease the number of vessels by accurately identifying the social and economic means of the fishermen.

4- Although the technical equipment and the capacity of the seine boats are beyond the available sources, concrete steps have not been taken for international and overseas fishing. Vessels have been enlarged for tuna catch and equipped with fish finders. There is a need for the existent vessels to be directed for overseas fishing. Certain initiatives could be developed towards the western African coasts and certain regions in the Indian Ocean (especially Islamic countries).

5- Since the fisheries sector is not organized on a healthy cooperative basis, the real concept of fisherman is not sufficiently established. Mostly, the real fishermen are not in the management of the cooperatives. The Government has the same point of view towards the fishermen in terms of both the implementation of prohibitions, and the provision of loans and incentives. Concerning the fishermen except for those possessing seine boats and trawlers, the same treatment is done to those who do not have any social insurance, and those who have social insurance in addition to the other economic activities of theirs. The masses which are driving most of their income from fisheries should be identified and the policies should be formulated accordingly. Cooperative organization in the sector should be restructured and small scale fishermen should be provided with social insurance.

6- Insufficient protection and control services and the practical shortcomings are the causes of overfishing. According to the observations, the prohibitions on fishing time and area, and catch species provide efficiency to some extent, while the controls on selectivity of length, species and net selectivity are not as efficacious as desired. From this perspective, especially the net factories, and processing and valuing factories should be checked in terms of prohibitions; and prohibitions on fishing time and area should be emphasized more for the protection of decreasing fish stocks. Furthermore, present situation of fishing equipments used should be determined to initiate standardization efforts.