DEVELOPMENT OF FISH PROCESSING FACILITIES IN THE BLACK SEA REGION

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In parallel with the worldwide developments, 1990s are a timeframe during which the industrialization gained momentum from production-oriented approach to consumption-oriented approach. These developments occurring in our country have also become apparent in the fisheries sector within the framework of evolving standards of the world and of the European Union.

Turkey can be considered to be a favorable state in terms of the consumption of inland water and sea fish resources. The fisheries production in 2005 was realized as approximate tonnage of 544.773, 61.2% of which is from the sea fish, 8.4% from fresh water, 21.62% from cultured fish and 8.8% from the other marine fishery. 24.8% of the production is processed in fish meal and fish oil factories, and anchovy is used as the major species.

70% of production of total marine fish is unprocessed, namely consumed fresh. The consumption of frozen, preserved and salted and marinated marine fishery is quite low. After all, it is an indicator that the per capita fish consumption is around 7-8 kg. The Black Sea region is a leader in fish consumption compared to the other regions.

Despite the fact the processing of fisheries is not at the desired level, it would be quite right to say that it is in a relatively good position compared to its past. In Turkey, there are 131 processing exporting enterprises, 103 of which are exporting to the European Union. 7% of Turkish fishery products are exported. Live, fresh-frozen, frozen, salted fishery products, live and processed crustaceous products, frog and land snail are exported to the European Union. Especially fresh-frozen marine fish species constitute a considerable sum in the Turkish fisheries export. As the most important species, sea bream and sea bass leap to the eye. Fish culture takes an important place and important investments have been realized until today. Turkish export was around 45 thousand tons in 2005. In terms of economic value, it totals 240 million Dollars. Turkish export in 2006 almost attained the same levels.

In response to export, approximately 23,000 tons of fisheries are imported. Frozen fishery products constitute the most important part of the Turkish import and tuna fish is the most important species imported. During 1990s, important investments were made in Turkey in the production of canned tuna fish and today Turkey has become one of the most important exporters in this sector. This sector imports 80% of its need from the foreign countries, and most considerable portion of the import is from the Scandinavian countries.

The fishery products which are mostly supplied to the Turkish market are fresh, refrigerated or frozen. Major investments were made in recent years in the preservation and processing industry and our country has provided the consumers with the new options. The production of preserved, refrigerated, salted, smoked and marinated fishery products concentrated in the coastal parts, mostly in the Marmara, Aegean and the Black Sea Region. These developments contribute to the extension of fish consumption in the country.

As it is known, anchovy takes an important place in the Turkish fisheries. Considerable portion of anchovy fished is obtained from the Black Sea Region. Therefore, the processing factories and facilities in the Black Sea Region were established based on anchovy. In 1990s, most of these factories were constructed in order to process fish meal and fish oil. At the first stage, the fish meal and fish oil factories were influenced by the fluctuations in anchovy fishing in the ensuing years and ended their activities. On the other hand, certain enterprises entered into service for the processing of anchovy by refrigeration or salting. This can be considered as a pleasant development; because rather than using such fish like anchovy which has an important role in the human nutrition as fish meal and fish oil, it would be more to the point to process and supply anchovy in such a way that people in Turkey would consume all year round. The place of establishment, production capacities and means of production of the facilities which were active in our region between 1992 and 2006 are shown in Table 1 and Table 2.
### Tablo 1. Fish processing companies in the Black Sea Region in 1992.

<table>
<thead>
<tr>
<th>Company Name</th>
<th>Location</th>
<th>Capacity (ton/day)</th>
<th>Production Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>Papila</td>
<td>Vessel</td>
<td>300</td>
<td>Fish meal and oil</td>
</tr>
<tr>
<td>Karbasan</td>
<td>Pazar</td>
<td>400</td>
<td></td>
</tr>
<tr>
<td>Karsusan</td>
<td>Trabzon</td>
<td>600+10</td>
<td>Fish meal and oil, frozen fish</td>
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<tr>
<td>Çarşibaşı Koop.</td>
<td>Çarşibaşı</td>
<td>300+15</td>
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</tr>
<tr>
<td>Bulancak Koop.</td>
<td>Bulancak</td>
<td>100</td>
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<tr>
<td>Et-Balık Kurumu</td>
<td>Fatsa</td>
<td>300</td>
<td></td>
</tr>
<tr>
<td>Demas</td>
<td>Fatsa</td>
<td>100</td>
<td></td>
</tr>
<tr>
<td>Saboğlu</td>
<td>Terme</td>
<td>100</td>
<td></td>
</tr>
<tr>
<td>Yakakent Koop.</td>
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<td>100</td>
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</tr>
<tr>
<td>Sürsan-1</td>
<td>Yakakent</td>
<td>800</td>
<td>Fish meal and oil</td>
</tr>
<tr>
<td>Cansusan</td>
<td>Güzelceçay</td>
<td>600</td>
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<tr>
<td>Baysun</td>
<td>Güzelceçay</td>
<td>600</td>
<td></td>
</tr>
<tr>
<td>Sütaş</td>
<td>Güzelceçay</td>
<td>300</td>
<td></td>
</tr>
<tr>
<td>Sürsan-2</td>
<td>Güzelceçay</td>
<td>600</td>
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</tr>
<tr>
<td>Balıksan</td>
<td>Gerze</td>
<td>600</td>
<td></td>
</tr>
<tr>
<td>Sidemsan</td>
<td>Gerze</td>
<td>300</td>
<td></td>
</tr>
<tr>
<td>Bısal</td>
<td>Sinop</td>
<td>600</td>
<td></td>
</tr>
<tr>
<td>Büşan</td>
<td>Delice</td>
<td>100</td>
<td></td>
</tr>
<tr>
<td>Dalyan</td>
<td>Sinop</td>
<td>300</td>
<td></td>
</tr>
<tr>
<td>Fribal</td>
<td>Trabzon</td>
<td>15</td>
<td>Frozen fish</td>
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<td>Bayramoğlu</td>
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<td>Tarsan</td>
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<tr>
<td>Aspra</td>
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<td>Salted fish</td>
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<td>Fatsa</td>
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<tr>
<td>Susan</td>
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### Tablo 2. Fish processing companies in the Black Sea Region in 2006.

<table>
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<th>Company Name</th>
<th>Location</th>
<th>Capacity (ton/day)</th>
<th>Production Type</th>
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</thead>
<tbody>
<tr>
<td>Karbasan</td>
<td>Rize</td>
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</tr>
<tr>
<td>Koptur</td>
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<td>250</td>
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<td>Trabzon</td>
<td>600</td>
<td></td>
</tr>
<tr>
<td>Sürsan</td>
<td>Samsun</td>
<td>1000</td>
<td></td>
</tr>
<tr>
<td>Balıksan</td>
<td>Sinop</td>
<td>300</td>
<td></td>
</tr>
<tr>
<td>Baysun</td>
<td>Sinop</td>
<td>200</td>
<td></td>
</tr>
<tr>
<td>Sürsan</td>
<td>Sinop</td>
<td>300</td>
<td></td>
</tr>
<tr>
<td>Can Kardeşler</td>
<td>Sinop</td>
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</tr>
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<td>Sinop</td>
<td>300</td>
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<tr>
<td>Taka</td>
<td>Trabzon</td>
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<td>Frozen fish</td>
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<td>Perşembe</td>
<td>10</td>
<td></td>
</tr>
<tr>
<td>Aspra</td>
<td>Fatsa</td>
<td>10</td>
<td></td>
</tr>
<tr>
<td>Bayramoğlu</td>
<td>Samsun</td>
<td>15</td>
<td></td>
</tr>
<tr>
<td>Kardeş Çarşamba</td>
<td>Samsun</td>
<td>15</td>
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<tr>
<td>İpek</td>
<td>Samsun</td>
<td>10</td>
<td>Frozen fish, sea snail</td>
</tr>
<tr>
<td>Baysoy</td>
<td>Sinop</td>
<td>10</td>
<td></td>
</tr>
<tr>
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<td>Sinop</td>
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</tr>
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<td>Sagunlar</td>
<td>Sinop</td>
<td>15</td>
<td></td>
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### References

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Doğan, M., Zengin, M., Özte, M., Bozali, M. ve Şahin, T., 1992, Karadeniz’de Av Araçları ve Gereçleri ile Avlanma Teknolojisinin Belirlenmesi Projesi, TAGEM