İSTANBUL & MARMARA, AEGEAN, MEDITERRANEAN, BLACK SEA REGIONS

CHAMBER OF SHIPPING

MARITIME SECTOR REPORT

İMEAK DENİZ TİCARET ODASI • TURKISH CHAMBER OF SHIPPING •

İstanbul 2023

TURKISH CHAMBER OF SHIPPING

ISTANBUL & MARMARA, AEGEAN, MEDITERRANEAN, BLACKSEA REGIONS

MARITIME SECTOR REPORT

İSTANBUL - 2023

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FOREWORD

In the year 2023, which we entered with great hopes and also with the joy and happiness of reaching the centennial of the founding of Republic of Türkiye, unfortunately, we were deeply shaken by one of the largest earthquakes of our history.

As a result of the Kahramanmaraş centered earthquakes, which were defined as the “disaster of the century”, we lost more than 50 thousand people and suffered a great destruction throughout the region. Once again, I extend my condolences to those who lost their lives in the great disaster, wish patience to our citizens who lost their relatives and convey my prayers to those who suffered from the eartquake. We are undoubtedly in great pain and we will not be able to forget this grief we experienced for a long time.

In the post-pandemic period, political uncertainties such as the Russia-Ukraine war and the China-US tension raise concerns about economic activities and deepen the economic recession around the world. While the addition of high inflation and low growth to economic negativities slows down the global economy, a limited growth of 1.6% in annual ton basis is expected in 2023 in global maritime trade.

When we look at the economy of Türkiye, we observe that the growth rate, which slightly declined due to the earthquake, tends to recover again. Indeed, we have been witnessing great developments for our country recently. The first orders of our domestic and national automobile brand TOGG, which is the pride of our country, have been delivered. Also, we are very proud to see projects based on high technology, realized with the hard work, effort and determination of our engineers and technicians, especially in our defense industry,

Currently, Turkish shipping industry rises to the 14th place in the ranking of the global Merchant fleet (1000GT and above) with 1700 Turkish-owned ships and approximately 40 million DWT. Our industry is increasing its contribution to the national economy each passing day with its increasing modern shipbuilding capacity in our rapidly developing shipyards, its growing maritime fleet, and with its ports that develop its logistics capabilities and infrastructure according to the needs of future.

“Maritime Sector Report 2023” of Turkish Chamber of Shipping reveals the developments in the maritime industry in Türkiye and in the world.

While making our report available to you, which we prepare every year with regular and much efforts and includes the most up-to-date data and accurate information about the maritime industry, I would like to thank those who contributed to its preparation and wish our report to be beneficial for our industry and community.

Tamer KIRAN

Turkish Chamber of Shipping

Chairman of the Board of Directors

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ABBREVIATIONS

BOT	: Build-Operate-Transfer
BSEC	: Black Sea Economic Cooperation
CGT	: Compensated Gross Ton
DGFA	: Directorate General of Fisheries and Aquaculture
DWT	: Deadweight Tonnage
EEEF	: Europe Environmental Education Foundation
EU	: European Union
FAO	: United Nations Food and Agriculture Organization
GT	: Gross Tonnage
IMO	: International Maritime Organization
ISL	: Institute of Shipping Economics and Logistics
LHD	: Multi-Purpose Amphibious Assault Ship
LNG	: Liquefied Natural Gas
LOA	: Length Overall
LPG	: Liquefied Petroleum Gas
LRIT	: Long Range Identification and Tracking
MARRAP	: Marmara Report
OECD	: Organisation for Economic Co-operation and Development
SRR	: Ship Recycling Regulation
TEU	: Twenty-Foot Equivalent Unit
TRNDC	: Türkiye's National LRIT Data Center
TSVTS	: The Turkish Straits Vessel Traffic Service
TUBRAP	: Turkish Straits Reporting System
TURCEV	: The Environmental Education Foundation of Türkiye
TURKSTAT	: Turkish Statistical Institute
UNESCO	: United Nations Educational, Scientific and Cultural Organization
US	: United States
USD	: United States Dollar
VHF	: Very High Frequency
VTS	: Vessel Traffic Services
YTKB	: New Type Patrol Boat

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CHAPTER I

THE DEVELOPMENT OF THE TURKISH SHIPPING

1. THE DEVELOPMENT OF TURKISH SHIPPING

1.1. The Turkish Merchant Fleet

A detailed analysis of the Turkish merchant fleet has been made under the Turkish National Ship Registry and Turkish International Ship Registry. The values which were established for individual ship groups have been evaluated by number, tonnage and also by being imported or built in Türkiye.

In the analysis, ships of size 1000 GT or higher have been taken into consideration. Age and tonnage ranges have also been evaluated in their respective tables.

Number and tonnage values are as of 31 December 2022.

1.2. The Analysis of the Turkish Merchant Fleet by Number and Tonnage

A general analysis of the merchant fleet has been made according to number, tonnage, and place of build. Table 1 shows that Turkish merchant fleet consists of 495 ships of which 276 (5.2 million DWT) have been imported and 219 (1.3 million DWT) have been built in Türkiye.

495 ships are distributed by type as follows; 20% dry cargo ships, 13.7% chemical tankers, 10.1% container ships, 8.3% marine vehicles, 7.9% bulk carrier ships and 40% other types.

By DWT the fleet consists of; 27.4% bulk carriers, 20% oil tankers, 16.7% container ships, 13.4% chemical tankers, 8.7% dry cargo ships, and 13.8% other types.

By DWT, 5.6% of our fleet is registered in the National Ship Registry, 94.4% of the fleet is registered in the International Ship Registry. By GT, 7.9% of our fleet is registered in the National Ship Registry, 92.1% of the fleet is registered in the International Ship Registry. (Table 2)

The fleet registered in the International Ship Registry (6.2 million DWT) is composed of; bulk carriers (28.8%), oil tankers (21%), container ships (15.5%), chemical tankers (13.7%), dry cargo vessels (8.5%) and other types (12.5%). (Table 2)

Table 2 shows Turkish merchant fleet which consists of 495 ships. 13.1% of the total fleet (65 ships) is registered in the National Ship Registry and 86.9% of the total fleet (430 ships) is registered in the International Ship Registry.

The majority of the fleet registered in the National Ship Registry (362.595 DWT) is composed of container ships (37.0%), LNG tankers (25.8%), dry cargo ships (10.8%), chemical tankers (7.9%), service ships (5.5%) and other types (13%). (Table 2)

Table 1. The General Examination of the Turkish Merchant Fleet by Number and Tonnage According to Import and Build (1000 GT and Over)

Ship Types	Count				DWT				GT			
	Import	Build	Total	%	Import	Build	Total	%	Import	Build	Total	%
Dry Cargo	29	70	99	20.0	207,715	357,130	564,845	8.7	142,389	230,608	372,997	6.6
Bulk Carrier	36	3	39	7.9	1,673,659	119,368	1,793,027	27.4	961,732	73,531	1,035,263	18.4
Container	37	13	50	10.1	870,390	218,521	1,088,911	16.7	697,483	171,185	868,668	15.4
Dry Cargo/Container	4	2	6	1.2	21,447	13,392	34,839	0.5	25,925	8,663	34,588	0.6
Chemical Tankers	39	29	68	13.7	658,193	216,556	874,749	13.4	422,570	144,583	567,153	10.1
LPG Tankers	5	0	5	1.0	27,804	0	27,804	0.4	25,574	0	25,574	0.5
LNG Tankers	2	0	2	0.4	187,228	0	187,228	2.9	218,696	0	218,696	3.9
Asphalt Tankers	1	3	4	0.8	6,600	54,850	61,450	0.9	5,311	43,630	48,941	0.9
Ro-Ro Ships	19	1	20	4.0	233,950	17,183	251,133	3.9	579,063	60,465	639,528	11.3
Ro-Ro Ferry/Passenger	8	12	20	4.0	27,419	701	28,120	0.4	43,404	27,779	71,183	1.3
Ferry Boats	1	27	28	5.8	0	23,014	23,014	0.4	1,815	35,438	37,253	0.6
Train Ferries	0	5	5	1.0	0	2,960	2,960	0.0	0	7,916	7,916	0.1
Passenger and Cargo Ships	8	4	12	2.5	4,078	1,700	5,778	0.1	33,411	28,578	61,989	1.1
Fishing Boats	2	2	4	0.8	3,876	0	3,876	0.1	3,591	13,372	16,963	0.3
Scientific Research Vessel	3	1	4	0.8	2,690	0	2,690	0.0	10,061	4,789	14,850	0.3
Harbour Ferries	1	0	1	0.2	0	0	0	0.0	1,043	0	1,043	0.0
Harbour Car Ferries	0	4	4	0.8	0	1,264	1,264	0.0	0	4,874	4,874	0.1
Tugs	1	0	1	0.2	0	0	0	0.0	1,565	0	1,565	0.0
Service Ships	25	12	37	7.5	46,958	4,200	51,158	0.8	203,631	29,274	232,905	4.1
Oil Tankers	12	12	24	4.8	1,113,614	190,478	1,304,092	20.0	604,090	101,446	705,536	12.5
Train Ferries/Ro-Ro	1	0	1	0.2	6,266	0	6,266	0.1	15,195	0	15,195	0.3
Vessels of Offshore Activity	16	3	19	3.8	95,602	41,021	136,623	2.1	146,163	56,075	202,238	3.5
Marine Vehicles	25	16	41	8.3	42,002	32,331	74,333	1.1	292,141	155,277	447,418	7.9
Special Purpose Ships	1	0	1	0.2	5,552	0	5,552	0.1	10,763	0	10,763	0.2
Grand Total	**276**	**219**	**495**	**100**	**5,235,043**	**1,294,669**	**6,529,712**	**100**	**4,445,616**	**1,197,483**	**5,643,099**	**100**

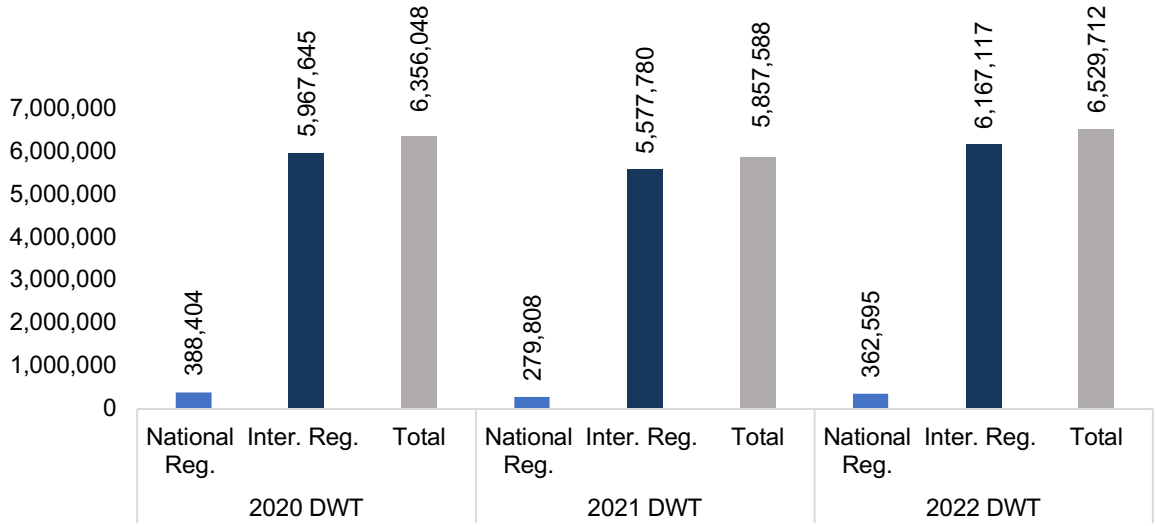
Source: Turkish Chamber of Shipping Statistics

Table 2. The General Examination of the Turkish Merchant Fleet by National and International Registries (1000 GT and Over)

Ship Types	Count				DWT				GT			
	National Reg.	Inter. Reg.	Total	%	National Reg.	Inter. Reg.	Total	%	National Reg.	Inter. Reg.	Total	%
Dry Cargo	7	92	99	20.0	39,246	525,599	564,845	8.7	26,277	346,720	372,997	6.6
Bulk Carrier	1	38	39	7.9	18640	1,774,387	1,793,027	27.4	11,529	1,023,734	1,035,263	18.4
Container	4	46	50	10.1	134264	954,647	1,088,911	16.7	105,777	762,891	868,668	15.4
Dry Cargo/Container	0	6	6	1.2	0	34,839	34,839	0.5	0	34,588	34,588	0.6
Chemical Tankers	5	63	68	13.7	28,743	846,006	874,749	13.4	19,312	547,841	567,153	10.1
LPG Tankers	0	5	5	1.0	0	27,804	27,804	0.4	0	25,574	25,574	0.5
LNG Tankers	1	1	2	0.4	93,715	93,513	187,228	2.9	109,777	108,919	218,696	3.9
Asphalt Tankers	0	4	4	0.8	0	61,450	61,450	0.9	0	48,941	48,941	0.9
Ro-Ro Ships	1	19	20	4.0	1,500	249,633	251,133	3.9	19,638	619,890	1,565	11.3
Ro-Ro Ferry/Passenger	2	18	20	4.0	0	28120	28120	0.4	10,681	60,502	639,528	1.3
Ferry Boats	1	27	28	5.8	2314	20,700	23,014	0.4	1,596	35,658	37,253	0.6
Train Ferries	5	0	5	1.0	2960	0	2,960	0.0	7,916	0	7,916	0.1
Passenger and Cargo Ships	2	10	12	2.5	3,240	2,538	5,778	0.1	15,284	46,705	61,989	1.1
Fishing Boats	1	3	4	0.8	0	3,876	3,876	0.1	1,474	15,489	16,963	0.3
Scientific Research Vessel	0	4	4	0.8	0	2,690	2,690	0.0	0	14,850	14,850	0.3
Harbour Ferries	0	1	1	0.2	0	0	0	0.0	0	1,043	1,043	0.0
Harbour Car Ferries	0	4	4	0.8	0	1,264	1,264	0.0	0	4,874	4,874	0.1
Tugs	1	0	1	0.2	0	0	0	0.0	1,565	0	71,183	0.0
Service Ships	14	23	37	7.5	19774	31,384	51,158	0.8	59,495	173,410	232,905	4.1
Oil Tankers	3	21	24	4.8	10,868	1,293,224	1,304,092	20.0	5,940	699,596	705,536	12.5
Train Ferries/Ro-Ro	0	1	1	0.2	0	6,266	6,266	0.1	0	15,195	15,195	0.3
Vessels of Offshore Activity	0	19	19	3.8	0	136,623	136,623	2.1	0	202,238	202,238	3.5
Marine Vehicles	17	24	41	8.3	7,331	67,002	74,333	1.1	49,098	398,320	447,418	7.9
Special Purpose Ships	0	1	1	0.2	0	5,552	5,552	0.1		10,763	10,763	0.2
Grand Total	**65**	**430**	**495**	**100**	**362,595**	**6,167,117**	**6,529,712**	**100**	**445,358**	**5,197,741**	**5,643,099**	**100**

Source: Turkish Chamber of Shipping Statistics

Graph 1. Examination of Registries (1000 GT and Over)



Source: Turkish Chamber of Shipping Statistics

Table 3. Examination of Registries (DWT) 2020-2021-2022 (1000 GT and Over)

Ship Types	2020 DWT			2021 DWT			2022 DWT			2021-2022 DWT % Change
	National Reg.	Inter. Reg.	Total	National Reg.	Inter. Reg.	Total	National Reg.	Inter. Reg.	Total	
Dry Cargo	42,007	664,523	706,530	41,441	562,526	603,967	39,246	525,599	564,845	-6.5
Bulk Carrier	116,655	1,792,514	1,909,169	18,640	1,518,458	1,537,098	18,640	1,774,387	1,793,027	16.7
Container	156,278	858,308	1,014,586	134,264	901,180	1,035,444	134,264	954,647	1,088,911	5.2
Dry Cargo/Container	2,356	55,631	57,987	2,356	36,776	39,132	0	34,839	34,839	-11
Chemical Tankers	9,497	620,584	630,081	22,621	643,138	665,759	28,743	846,006	874,749	31.4
LPG Tankers	0	27,804	27,804	0	27,804	27,804	0	27,804	27,804	0
LNG Tankers	0	0	0	0	93,513	93,513	93,715	93,513	187,228	100.2
Asphalt Tankers	2,770	54,850	57,620	0	61,453	61,453	0	61,450	61,450	0
Ro-Ro Ships	0	135,903	135,903	0	122,276	122,276	1,500	249,633	251,133	105.4
Ro-Ro Ferry/Passenger	1,500	32,265	33,765	0	30,778	30,778	0	28,120	28,120	-8.6
Ferry Boats	2,314	19,873	22,186	2,314	20,700	23,014	2,314	20,700	23,014	0
Train Ferries	2,960	0	2,960	2,960	0	2,960	2,960	0	2,960	0
Passenger and Cargo Ships	3,761	3,466	7,227	3,761	2,538	6,299	3,240	2,538	5,778	-8.3
Fishing Boats	0	569	569	0	3876	3876	0	3,876	3,876	0
Scientific Research Vessel	0	7,780	7,780	0	4,480	4,480	0	2,690	2,690	-40
Harbour Ferries	0	0	0	0	0	0	0	0	0	-
Harbour Car Ferries	0	1,974	1,974	0	1,264	1,264	0	1,264	1,264	0
Tugs	0	0	0	0	0	0	0	0	0	-
Service Ships	19,774	133,623	153,397	19,774	147,917	167,691	19,774	31,384	51,158	-69.5
Oil Tankers	10,868	1,416,636	1,427,504	10,868	1,256,231	1,267,099	10,868	1,293,224	1,304,092	2.9
Train Ferries/Ro-Ro	0	6,266	6,266	0	6,266	6,266	0	6,266	6,266	0
Dry Cargo/Ro-Ro	11,978	127,076	139,054	13,478	128,606	142,084	0	0	0	-
Vessels of Offshore Activity	0	0	0	0	0	0	0	136,623	136,623	-
Marine Vehicles	0	0	0	0	0	0	0	5,552	5,552	-
Special Purpose Ships	5,686	8,000	13,686	7,331	8,000	15,331	7,331	67,002	74,333	384.9
Grand Total	**388,404**	**5,967,645**	**6,356,048**	**279,808**	**5,577,780**	**5,857,588**	**362,595**	**6,167,117**	**6,529,712**	**11.5**

Source: Turkish Chamber of Shipping Statistics

1.3. The Age Profile of the Turkish Merchant Fleet

Table 4 shows the age profile of the Turkish Merchant Fleet with respect to different ship types. The Merchant Fleet of ships with size 1.000 GT and above consists of 495 ships. The average age of these ships is 24 as of 31.12.2022.

The average age of dry cargo ships is 28, which makes 20% of the fleet. The average age of bulk carriers is 18 and makes up 7.9% of the total fleet. The average age of containers is 18, which is 10.1% of the fleet. The average age of chemical tankers is 18, which is 13.7% of the fleet. The average age of oil tankers is 18, which is 4.8% of the fleet.

Table 4. The Average Profile of the Turkish Merchant Fleet (1000 GT and Over)

Ship Types	Number	Tonnage (DWT)	Tonnage (GT)	Average Age
Dry Cargo	99	564,845	372,997	28
Bulk Carrier	39	1,793,027	1,035,263	18
Container	50	1,088,911	868,668	18
Dry Cargo/Container	6	34,839	34,588	30
Chemical Tankers	68	874,749	567,153	18
LPG Tankers	5	27,804	25,574	25
LNG Tankers	2	187,228	218,696	2
Asphalt Tankers	4	61,450	48,941	6
Ro-Ro Ships	20	251,133	639,528	16
Ro-Ro Ferry/Passenger	20	28,120	71,183	20
Ferry Boats	28	23,014	37,253	26
Train Ferries	5	2,960	7,916	48
Passenger and Cargo Ships	12	5,778	61,989	21
Fishing Boats	4	3,876	16,963	21
Scientific Research Vessel	4	2,690	14,850	25
Harbour Ferries	1	0	1,043	70
Harbour Car Ferries	4	1,264	4,874	29
Tugs	1	0	1,565	38
Service Ships	37	51,158	232,905	39
Oil Tankers	24	1,304,092	705,536	18
Train Ferries/Ro-Ro	1	6,266	15,195	36
Vessels of Offshore Activity	19	136,623	202,238	14
Marine Vehicles	1	5,552	10,763	23
Special Purpose Ships	41	74,333	447,418	34
Grand Total	**495**	**6,529,712**	**5,643,101**	**24**

Source: Turkish Chamber of Shipping Statistics

Table 5 shows the Turkish Merchant Fleet grouped by different age and tonnage ranges. Turkish Merchant Fleet consists of 495 ships with a total of 6,529,712 DWT.

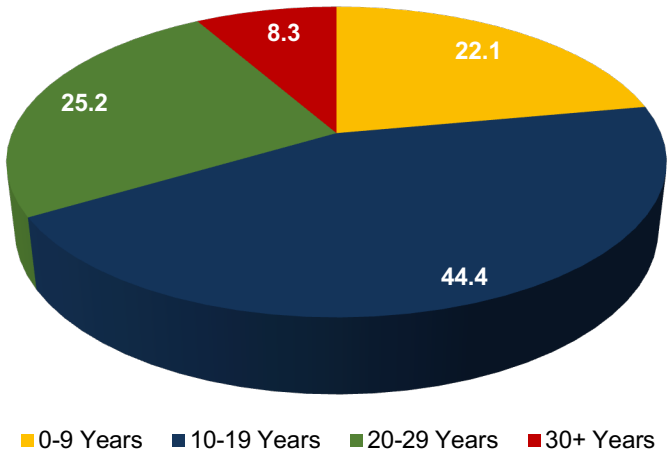
- 69 ships with total size 1,445,166 DWT are in the 0-9 age range,
- 162 ships with total size 2,897,665 DWT are in the 10-19 age range,
- 102 ships with total size 1,647,222 DWT are in the 20-29 age range,
- 162 ships with total size 539,659 DWT are of age 30 or older.

Table 5. Turkish Merchant Fleet Distribution by Tonnage and Age Groups (1000 GT and Over)

Divisions of Tonnage	0-9 Years			10-19 Years			20-29 Years			30+ Years			Total	
	NO	DWT	%	NO	DWT	%	NO	DWT	%	NO	DWT	%	NO	DWT
0-149	27	0	0.0	23	0	0.0	6	0	0.0	46	0	0.0	102	0
150-1499	0	0	0.0	7	4,653	0.2	5	3,582	0.2	16	10,443	1.9	28	18,678
1500-5999	8	30,130	2.1	38	144,261	5.0	30	107,274	6.5	75	252,053	46.7	151	533,718
6000-9999	7	49,912	3.5	21	152,541	5.3	16	129,907	7.9	14	106,802	19.8	58	439,162
10000-34999	12	213,372	14.7	51	941,081	32.5	27	536,182	32.6	11	170,361	31.6	101	1,860,996
35000-52999	9	349,620	24.2	7	299,186	10.3	16	744,300	45.2	0	0	0.0	32	1,393,106
53000-79999	0	0	0.0	8	507,837	17.5	2	125,977	7.6	0	0	0.0	10	633,814
80000-119999	2	187,228	13.0	3	247,564	8.5	0	0	0.0	0	0	0.0	5	434,792
120000+	4	614,904	42.5	4	600,542	20.7	0	0	0.0	0	0	0.0	8	1,215,446
Grand Total	**69**	**1,445,166**	**100.0**	**162**	**2,897,665**	**100.0**	**102**	**1,647,222**	**100.0**	**162**	**539,659**	**100.0**	**495**	**6,529,712**

Source: Turkish Chamber of Shipping Statistics

Graph 2. Turkish Merchant Fleet Distribution by Age Groups (DWT/%)



Source: Turkish Chamber of Shipping Statistics

The graph shows the age groups of the Turkish merchant fleet. 22.1% of the fleet is in the 0-9 age range, 44.4% of the fleet is in the 10-19 age range, 25.2% of the fleet is in the 20-29 age range and 8.3% is 30 years old or over.

The tables of different ship types below show the age profile of the Turkish merchant fleet and are organized according to size and age.

Table 6 shows the Dry Cargo segment (99 ships) which has a total size of 564,845 DWT.

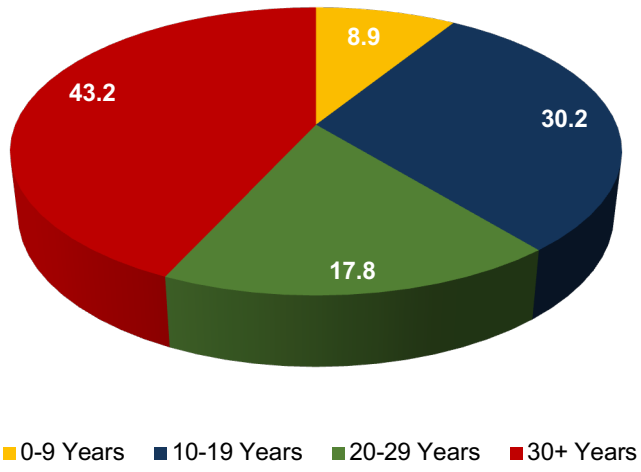
- 6 ships of size 50,071 DWT are in the 0-9 age range,
- 27 ships of size 170,538 DWT are in the 10-19 age range,
- 14 ships of size 100,322 DWT are in the 20-29 age range,
- 52 ships of size 243,914 DWT are 30 years or older.

Table 6. Dry Cargo Ships by Tonnage and Age Groups (1000 GT and Over)

Divisions of Tonnage	0-9 Years			10-19 Years			20-29 Years			30+ Years			Total	
	NO	DWT	%	NO	DWT	%	NO	DWT	%	NO	DWT	%	NO	DWT
150-1499	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0	0	0
1500-5999	3	15,086	30.1	15	61,407	36.0	12	41,267	41.1	43	153,350	62.9	73	271,110
6000-9999	1	7,121	14.2	9	64,535	37.8	1	9,190	9.2	5	33,940	13.9	16	114,786
10000-34999	2	27,864	55.7	3	44,596	26.2	0	0	0.0	4	56,624	23.2	9	129,084
35000-52999	0	0	0.0	0	0	0.0	1	49,865	49.7	0	0	0.0	1	49,865
53000-79999	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0	0	0
80000-119999	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0	0	0
120000+	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0	0	0
Genel Toplam	**6**	**50,071**	**100.0**	**27**	**170,538**	**100.0**	**14**	**100,322**	**100.0**	**52**	**243,914**	**100.0**	**99**	**564,845**

Source: Turkish Chamber of Shipping Statistics

Graph 3. Age Distribution of Dry Cargo Segment (DWT/%)



Source: Turkish Chamber of Shipping Statistics

8.9% of Dry Cargo Ships are in the 0-9 age range; 30.2% are in the 10-19 age range; 17.8% are in the 20-29 age range and 43.2% are 30 years or older.

Table 7 shows the Bulk Carrier Segment (39 ships) with a total size of 1,793,027 DWT.

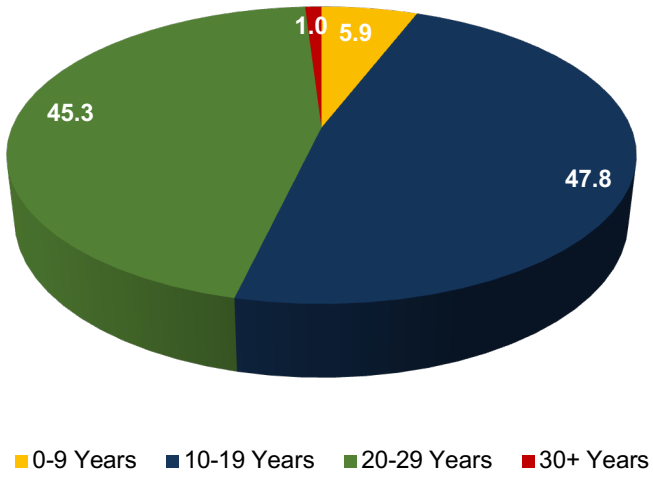
- 3 ships of size 105,526 DWT are in the 0-9 age range,
- 16 ships of size 856,903 DWT are in the 10-19 age range,
- 19 ships of size 811,958 DWT are in the 20-29 age range,
- 1 ships of size 18,640 DWT are 30 years or older.

Table 7. Bulk Carrier Ships by Tonnage and Age Groups (1000 GT and Over)

Divisions of Tonnage	0-9 Years			10-19 Years			20-29 Years			30+ Years			Total	
	NO	DWT	%	NO	DWT	%	NO	DWT	%	NO	DWT	%	NO	DWT
0-9999	0	0	0.0	0	0	0.0	1	4,468	0.6	0	0	0.0	1	4,468
10000-39999 (Handysize)	3	105,526	100.0	5	117,438	13.7	5	148,356	18.3	1	18,640	100.0	14	389,960
40000-49999 (Handymax)	0	0	0.0	1	45,683	5.3	6	273,208	33.6	0	0	0.0	7	318,891
50000-59999 (Supramax)	0	0	0.0	4	222,380	26.0	6	313,755	38.6	0	0	0.0	10	536,135
60000-84999 (Panamax)	0	0	0.0	6	471,402	55.0	1	72,171	8.9	0	0	0.0	7	543,573
85000-149999 (Capesize)	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0	0	0
150000+ (Capesize)	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0	0	0
Genel Toplam	**3**	**105,526**	**100.0**	**16**	**856,903**	**100.0**	**19**	**811,958**	**100.0**	**1**	**18,640**	**100.0**	**39**	**1,793,027**

Source: Turkish Chamber of Shipping Statistics

Graph 4. Age Distribution of Bulk Carriers (DWT)



Source: Turkish Chamber of Shipping Statistics

5.9% of the bulk carriers are in the 0-9 age range; 47.8% are in the 10-19 age range; 45.3% are in the 20-29 age range and 1% are 30 years or older.

Table 8 shows Oil Tankers Segment (24 ships) with a total size of 1,304,092 DWT.

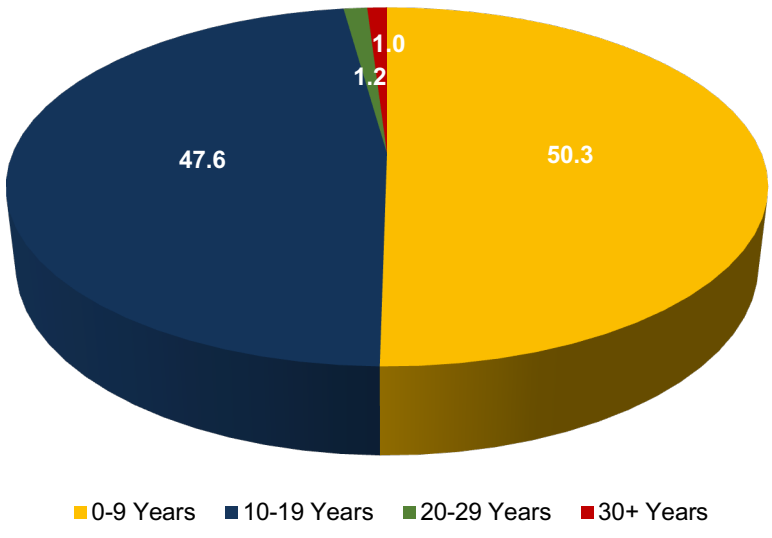
- 7 ships of size 655,493 DWT are in the 0-9 age range,
- 9 ships of size 620,830 DWT are in the 10-19 age range,
- 4 ships of size 15,164 DWT are in the 20-29 age range,
- 4 ships of size 12,605 DWT are 30 years or older.

Table 8. Oil Tankers by Tonnage and Age Groups (1000 GT and Over)

Divisions of Tonnage	0-9 Years			10-19 Years			20-29 Years			30+ Years			Total	
	NO	DWT	%	NO	DWT	%	NO	DWT	%	NO	DWT	%	NO	DWT
0-4999	2	3,596	0.6	4	13,169	2.1	4	15,164	100.0	4	12,605	100.0	14	44,534
5000-7499	0	0	0.0	1	7,119	1.2	0	0	0.0	0	0	0.0	1	7,119
7500-9999	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0	0	0
10000-39999 (Handysize)	1	36,993	5.6	0	0	0.0	0	0	0.0	0	0	0.0	1	36,993
40000-59999 (Handymax)	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0	0	0
60000-79999 (Panamax)	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0	0	0
80000-119999 (Suezmax)	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0	0	0
120000-199999 (Suezmax)	4	614,904	93.8	4	600,542	96.7	0	0	0.0	0	0	0.0	8	1,215,446
200000-324999 (VLCC)	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0	0	0
325000+(ULCC)	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0	0	0
Genel Toplam	**7**	**655,493**	**100.0**	**9**	**620,830**	**100.0**	**4**	**15,164**	**100.0**	**4**	**12,605**	**100.0**	**24**	**1,304,092**

Source: Turkish Chamber of Shipping Statistics

Graph 5. Age Distribution of Oil Tankers (DWT/%)



Source: Turkish Chamber of Shipping Statistics

50.3% of the oil tankers are in the 0-9 age range; 47.6% are in the 10-19 age range; 1.2% are in the 20-29 age range and 1.0% are 30 years old or older.

Table 9 shows the average age of the chemical tankers (68 ships) with a total size of 874,749 DWT.

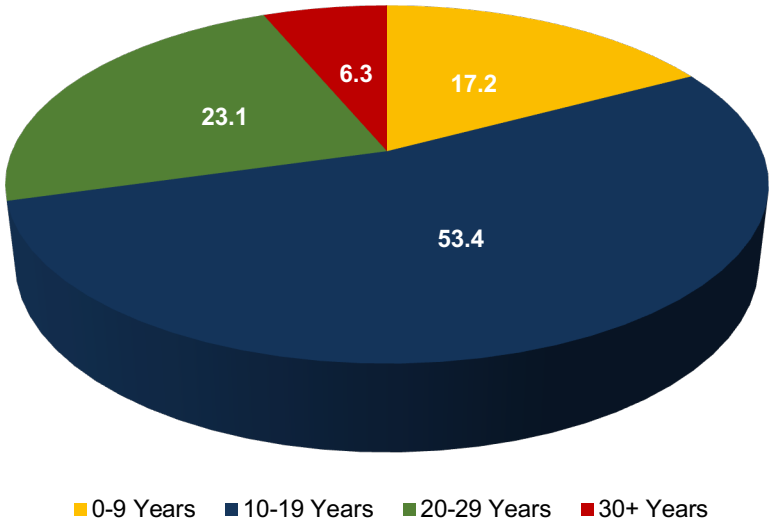
- 9 ships of size 150,182 DWT are in the 0-9 age range,
- 32 ships of size 467,215 DWT are in the 10-19 age range,
- 18 ships of size 202,108 DWT are in the 20-29 age range,
- 9 ships of size 55,244 DWT are 30 years or older.

Table 9. Chemical Tankers by Tonnage and Age Groups (1000 GT and Over)

Divisions of Tonnage	0-9 Years			10-19 Years			20-29 Years			30+ Years			Total	
	NO	DWT	%	NO	DWT	%	NO	DWT	%	NO	DWT	%	NO	DWT
0-4999	1	3,338	2.2	5	20,284	4.4	5	18,120	9.0	4	13,864	25.1	15	55,606
5000-7499	2	12,165	8.1	7	45,781	9.8	5	31,384	15.5	1	6,400	11.6	15	95,730
7500-9999	2	16,026	10.7	2	17,826	3.8	2	17,305	8.5	4	34,980	63.3	10	86,137
10000-39999 (Handysize)	3	68,663	45.7	16	281,793	60.3	5	89,043	44.1	0	0	0.0	24	439,499
40000-59999 (Handymax)	1	49,990	33.3	2	101,531	21.7	1	46,256	22.9	0	0	0.0	4	197,777
60000-79999 (Panamax)	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0	0	0
80000-119999 (Aframax)	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0	0	0
120000-199999 (Suezmax)	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0	0	0
200000-324999 (VLCC)	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0	0	0
325000+ (ULCC)	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0	0	0
Genel Toplam	**9**	**150,182**	**100.0**	**32**	**467,215**	**100.0**	**18**	**202,108**	**100.0**	**9**	**55,244**	**100.0**	**68**	**874,749**

Source: Turkish Chamber of Shipping Statistics

Graph 6. Age Distribution of Chemical Tankers (DWT)



Source: Turkish Chamber of Shipping Statistics

17.2% of chemical tankers are in the 0-9 age range; 53.4% are in the 10-19 age range; 23.1% are in the 20-29 age range and 6.3% are 30 years or older.

Table 10 shows the average age of the Container Ships (50 ships) with a total size of 1,088,911 DWT.

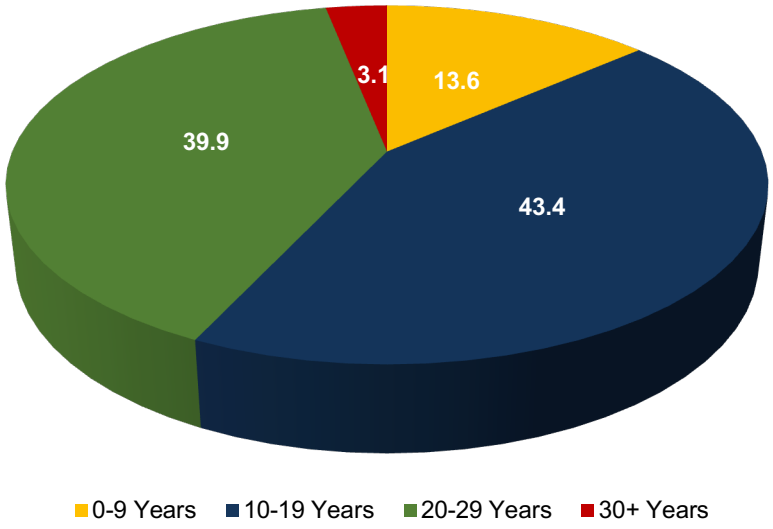
- 4 ships of size 147,996 DWT are in the 0-9 age range,
- 20 ships of size 472,381 DWT are in the 10-19 age range,
- 23 ships of size 434,368 DWT are in the 20-29 age range,
- 3 ship of size 34,166 DWT are 30 years or older.

Table 10. Container Ships by Tonnage and Age Groups (1000 GT and Over)

Divisions of Tonnage	0-9 Years			10-19 Years			20-29 Years			30+ Years			Total	
	NO	DWT	%	NO	DWT	%	NO	DWT	%	NO	DWT	%	NO	DWT
150-1499	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0	0	0
1500-5999	0	0	0.0	1	3,301	0.7	0	0	0.0	0	0	0.0	1	3,301
6000-9999	0	0	0.0	0	0	0.0	3	20,563	4.7	1	9,766	28.6	4	30,329
10000-34999	0	0	0.0	17	391,924	83.0	18	338,782	78.0	2	24,400	71.4	37	755,106
35000-52999	4	147,996	100.0	2	77,156	16.3	2	75,023	17.3	0	0	0.0	8	300,175
53000-79999	0	0	0.0	0	0	0.0	0	0		0	0	0.0	0	0
80000-119999	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0	0	0
120000+	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0	0	0
Genel Toplam	**4**	**147,996**	**100.0**	**20**	**472,381**	**100.0**	**23**	**434,368**	**100.0**	**3**	**34,166**	**100.0**	**50**	**1,088,911**

Source: Turkish Chamber of Shipping Statistics

Graph 7. Age Distribution of the Container Ships (DWT)



Source: Turkish Chamber of Shipping Statistics

13.6% of Container Ships are in the 0-9 age range; 43.4% are in the 10-19 age range; 39.9% are in the 20-29 age range and 3.1% are 30 years or older.

Table 11 shows the average age of the Ro-Ro Ships, (20 ships) with a total size of 251,133 DWT.

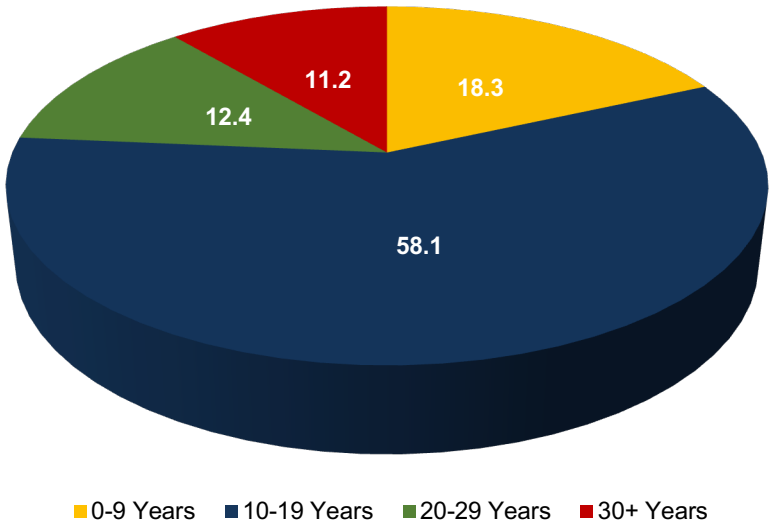
- 3 ships of size 46,110 DWT are in the 0-9 age range,
- 11 ships of size 145,896 DWT are in the 10-19 age range,
- 4 ship of size 31,095 DWT are in the 20-29 age range,
- 2 ships of size 28,032 DWT are 30 years or older.

Table 11. Ro-Ro Ships by Tonnage and Age Groups (1000 GT and Over)

Divisions Of Tonnage	0-9 Years			10-19 Years			20-29 Years			30+ Years			Total	
	NO	DWT	%	NO	DWT	%	NO	DWT	%	NO	DWT	%	NO	DWT
150-1499	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0	0	0
1500-5999	0	0	0.0	0	0	0.0	1	1,500	4.8	0	0	0.0	1	1,500
6000-9999	0	0	0.0	0	0	0.0	3	29,595	95.2	0	0	0.0	3	29,595
10000-34999	3	46,110	100.0	11	145,896	100.0	0	0	0.0	2	28,032	100.0	16	220,038
35000-52999	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0	0	0
53000-79999	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0	0	0
80000-119999	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0	0	0
120000+	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0	0	0
Genel Toplam	**3**	**46,110**	100.0	**11**	**145,896**	100.0	**4**	**31,095**	100.0	**2**	**28,032**	100.0	**20**	**251,133**

Source: Turkish Chamber of Shipping Statistics

Graph 8. Age Distribution of the Ro-Ro Ships (DWT/%)



Source: Turkish Chamber of Shipping Statistics

18.3% of Ro-Ro Ships are in the 0-9 age range; 58.1% are in the 10-19 age range; 12.4% are in the 20-29 age range and 11.2% are 30 years old or older.

1.4. Turkish Merchant Fleet by Number and Tonnage (1000 DWT and Over)[1]

Table 12 shows the numerical and tonnage values of ships which are 1000 DWT and over and are suitable for international transportation.

Table 13 shows that the Turkish merchant fleet consists of 450 ships. 14.2% of the total fleet (64 ships) is registered in National Ship Registry and 85.8% of the total fleet (386 ships) in the International Ship Registry. The total DWT and GT values of the ships over 1000 DWT are 6,664,435 DWT and 4,912,303 GT respectively. 6 classes make up the majority of this capacity. Bulk carriers lead with 26.9%, oil tankers follow with 20.1%, containers with 16.4%, chemical tankers with 13.1%, dry cargo with 9.2% and ro-ro ships with 3.8%. These 6 classes make up 89.5% of the total fleet based on DWT.

1% of the bulk carrier ships are registered in the National Ship Registry, and the rest 99% are registered in the International Ship Registry with a total weight of 1,793,027 DWT for the bulk carrier segment.

1.7% of the oil tankers are registered in the National Ship Registry, and the rest 98.3% are registered in the International Ship Registry with a total weight of 1,340,221 DWT for the oil tankers segment.

12.3% of the container ships are registered in the National Ship Registry, and the rest 87.7% are registered in the International Ship Registry with a total weight of 1,088,911 DWT for the container ship segment.

3.3% of the chemical tankers are registered in the National Ship Registry, and the rest 96.7% are registered in the International Ship Registry with a total weight of 874,749 DWT for the chemical tankers segment.

9.2% of the dry cargo ships are registered in the National Ship Registry, and the rest 90.8% are registered in the International Ship Registry with a total weight of 608,765 DWT for the dry cargo ship segment.

0.6% of the ro-ro ships are registered in the National Ship Registry, and the rest 99.4% are registered in the International Ship Registry with a total weight of 251,133 DWT for the service ships segment.

[1] Accepted International Seaborne Transportation Tonnage

Table 12. The General Examination of the Turkish Merchant Fleet by Number and Tonnage According to Import and Build (1000 DWT and Over)

Ship Types	Cound				DWT				GT			
	Import	Build	Total	%	Import	Build	Total	%	Import	Build	Total	%
Dry Cargo	34	94	128	28.5	215,259	393,506	608,765	9.2	146,783	250,660	397,443	8.1
Bulk Carrier	36	3	39	8.8	1,673,659	119,368	1,793,027	26.9	961,732	73,531	1,035,263	21.1
Container	37	13	50	11.1	870,390	218,521	1,088,911	16.4	697,483	171,185	868,668	17.7
Dry Cargo/Container	4	2	6	1.3	21,447	13,392	34,839	0.5	25,925	8,663	34,588	0.7
Chemical Tankers	39	29	68	15.2	658,193	216,556	874,749	13.1	422,570	144,583	567,153	11.5
LPG Tankers	5	0	5	1.1	27,804	0	27,804	0.4	25,574	0	25,574	0.5
LNG Tankers	2	0	2	0.4	187,228	0	187,228	2.8	218,696	0	218,696	4.5
Asphalt Tankers	1	3	4	0.9	6,600	54,850	61,450	0.9	5,311	43,630	48,941	1.0
Water Barges	0	1	1	0.2	0	1,027	1,027	0.0	0	488	488	0.0
Ro-Ro Ships	19	1	20	4.4	233,950	17,183	251,133	3.8	579,063	60,465	639,528	13.0
Ro-Ro Ferry/Passenger	6	1	7	1.6	26,962	1,339	28,301	0.4	38,378	975	39,353	0.8
Ferry Boats	0	10	10	2.2	0	18,555	18,555	0.3	0	14,280	14,280	0.3
Train Ferries	0	2	2	0.4	0	2,600	2,600	0.0	0	2,466	2,466	0.1
Passenger and Cargo Ships	2	1	3	0.7	31,182	1,700	32,882	0.5	5,132	10,583	15,715	0.3
Fishing Boats	1	0	1	0.2	3,307	0	3,307	0.0	2,184	0	2,184	0.0
Scientific Research Vessel	1	0	1	0.2	2,690	0	2,690	0.0	3,327	0	3,327	0.1
Service Ships	16	13	29	6.4	58,432	20,522	78,954	1.2	40,600	8,963	49,563	1.0
Oil Tankers	19	29	48	10.7	1,123,607	216,614	1,340,221	20.1	610,354	116,835	727,189	14.8
Train Ferries/Ro-Ro	1	0	1	0.2	6,266	0	6,266	0.1	15,195	0	15,195	0.3
Dry Cargo/Ro-Ro	0	1	1	0.2	0	1,923	1,923	0.0	0	998	998	0.0
Marine Vehicles	3	6	9	2.0	42,002	35,626	77,628	1.2	23,240	27,741	50,981	1.0
Vessels of Offshore Activity	11	3	14	3.1	95,602	41,021	136,623	2.1	87,872	56,075	143,947	2.9
Special Purpose Ships	1	0	1	0.2	5,552	0	5,552	0.1	10,763	0	10,763	0.3
Grand Total	**238**	**212**	**450**	**100**	**5,290,132**	**1,374,303**	**6,664,435**	**100**	**3,920,182**	**992,121**	**4,912,303**	**100**

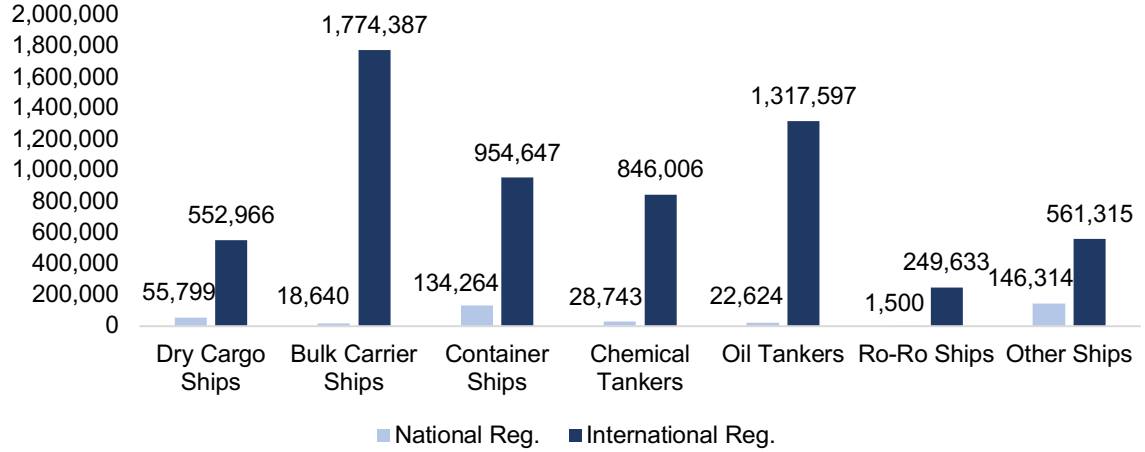
Source: Turkish Chamber of Shipping Statistics

Table 13. The General Examination of the Turkish Merchant Fleet by National and International Registries (1000 DWT and Over)

Ship Types	Cound				DWT				GT			
	National Reg.	Inter. Reg.	Total	%	National Reg.	Inter. Reg.	Total	%	National Reg.	Inter. Reg.	Total	%
Dry Cargo	19	109	128	28.5	55,799	552,966	608,765	9.2	35,600	361,843	397,443	8.1
Bulk Carrier	1	38	39	8.8	18,640	1,774,387	1,793,027	26.9	11,529	1,023,734	1,035,263	21.1
Container	4	46	50	11.1	134,264	954,647	1,088,911	16.4	105,777	762,891	868,668	17.7
Dry Cargo/Container	0	6	6	1.3	0	34,839	34,839	0.5	0	34,588	34,588	0.7
Chemical Tankers	5	63	68	15.2	28,743	846,006	874,749	13.1	19,312	547,841	567,153	11.5
LPG Tankers	0	5	5	1.1	0	27,804	27,804	0.4	0	25,574	25,574	0.5
LNG Tankers	1	1	2	0.4	93,715	93,513	187,228	2.8	109,777	108,919	218,696	4.5
Asphalt Tankers	0	4	4	0.9	0	61,450	61,450	0.9	0	48,941	48,941	1.0
Water Barges	0	1	1	0.2	0	1,027	1,027	0.0	0	488	488	0.0
Ro-Ro Ships	1	19	20	4.4	1,500	249,633	251,133	3.8	19,638	619,890	639,528	13.0
Ro-Ro Ferry/Passenger	0	7	7	1.6	0	28,301	28,301	0.4	0	39,353	39,353	0.8
Ferry Boats	1	9	10	2.2	2,314	16,241	18,555	0.3	1,596	12,684	14,280	0.3
Train Ferries	2	0	2	0.4	2,600	0	2,600	0.0	2,466	0	2,466	0.1
Passenger and Cargo Ships	2	1	3	0.7	3,240	29,642	32,882	0.5	15,284	431	15,715	0.3
Fishing Boats	0	1	1	0.2	0	3,307	3,307	0.0	0	2,184	2,184	0.0
Scientific Research Vessel	0	1	1	0.2	0	2,690	2,690	0.0	0	3,327	3,327	0.1
Service Ships	12	17	29	6.4	33,819	45,135	78,954	1.2	24,892	24,671	49,563	1.0
Oil Tankers	11	37	48	10.7	22,624	1,317,597	1,340,221	20.1	13,193	713,996	727,189	14.8
Train Ferries/Ro-Ro	0	1	1	0.2	0	6,266	6,266	0.1	0	15,195	15,195	0.3
Dry Cargo/Ro-Ro	0	1	1	0.2	0	1,923	1,923	0.0	0	998	998	0.0
Marine Vehicles	5	4	9	2.0	10,626	67,002	77,628	1.2	5,882	45,099	50,981	1.0
Vessels of Offshore Activity	0	14	14	3.1	0	136,623	136,623	2.1	0	143,947	143,947	2.9
Special Purpose Ships	0	1	1	0.2	0	5,552	5,552	0.1	0	10,763	10,763	0.3
Grand Total	**64**	**386**	**450**	**100**	**407,884**	**6,256,551**	**6,664,435**	**100**	**364,946**	**4,547,357**	**4,912,303**	**100**

Source: Turkish Chamber of Shipping Statistics

Graph 9. Turkish Fleet According to Registries, 1000 DWT and Over



Source: Turkish Chamber of Shipping Statistics

Table 14 shows the age profile of the Turkish Merchant Fleet with respect to different ship types. The Merchant Fleet of ships with size 1000 DWT and above consists of 450 ships. The average age of these ships is 24.7 as of 31.12.2022.

Table 14. The Average Age Profile of the Turkish Merchant Fleet (1000 DWT and Over)

Ship Types	Number	DWT	GT	Average Age
Dry Cargo	128	608,765	397,443	33
Bulk Carrier	39	1,793,027	1,035,263	18
Container	50	1,088,911	868,668	18
Dry Cargo/Container	6	34,839	34,588	30
Chemical Tankers	68	874,749	567,153	18
LPG Tankers	5	27,804	25,574	25
LNG Tankers	2	187,228	218,696	2
Asphalt Tankers	4	61,450	48,941	6
Water Barges	1	1,027	488	53
Ro-Ro Ships	20	251,133	639,528	16
Ro-Ro Ferry/Passenger	7	28,301	39,353	40
Ferry Boats	10	18,555	14,280	31
Train Ferries	2	2,600	2,466	49
Passenger and Cargo Ships	3	32,882	15,715	52
Fishing Boats	1	3,307	2,184	34
Scientific Research Vessel	1	2,690	3,327	36
Service Ships	29	78,954	49,563	37
Oil Tankers	48	1,340,221	727,189	19
Train Ferries/Ro-Ro	1	6,266	15,195	36
Dry Cargo/Ro-Ro	1	1,923	998	38
Marine Vehicles	9	77,628	50,981	24
Vessels of Offshore Activity	14	136,623	143,947	14
Special Purpose Ships	1	5,552	10,763	23
Grand Total	**450**	**6,664,435**	**4,912,303**	**24.7**

Source: Turkish Chamber of Shipping Statistics

Table 15 shows the Turkish Merchant Fleet grouped by different age and tonnage ranges. Turkish Merchant Fleet consists of 450 ships with a total of 6,664,435 DWT.

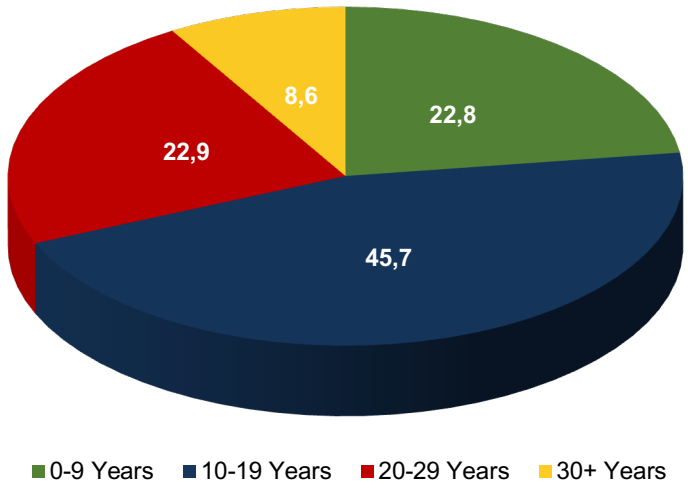
- 58 ships with total size 1,518,763 DWT are in the 0-9 age range,
- 144 ships with total size 3,046,740 DWT are in the 10-19 age range,
- 96 ships with total size 1,526,822 DWT are in the 20-29 age range,
- 152 ships with total size 572,110 DWT are of age 30 or older.

Table 15. Turkish Merchant Fleet Distribution by Tonnage and Age Groups (1000 DWT and Over)

Divisions Of Tonnage	0-9 Years			10-19 Years			20-29 Years			30+ Years			Total	
	No	DWT	%	No	DWT	%	No	DWT	%	No	DWT	%	No	DWT
150-1499	2	2,259	0.1	5	6,535	0.2	2	2,873	0.2	40	50,845	8.9	49	62,512
1500-5999	19	59,013	3.9	43	149,401	4.9	33	117,680	7.7	91	268,873	47.0	186	594,967
6000-9999	7	49,912	3.4	21	152,541	5.0	18	147,689	9.7	12	89,020	15.6	58	439,162
10000-34999	15	255,827	16.8	50	943,074	31.0	28	528,364	34.6	9	163,372	28.5	102	1,890,637
35000-52999	9	349,620	23.0	9	385,441	12.7	14	658,045	43.1	0	0	0.0	32	1,393,106
53000-79999	0	0	0.0	9	561,643	18.4	1	72,171	4.7	0	0	0.0	10	633,814
80000-119999	2	187,228	12.3	3	247,564	8.1	0	0	0.0	0	0	0.0	5	434,792
120000+	4	614,904	40.5	4	600,541	19.7	0	0	0.0	0	0	0.0	8	1,215,445
Genel Toplam	**58**	**1,518,763**	100	**144**	**3,046,740**	100	**96**	**1,526,822**	100	**152**	**572,110**	100	**450**	**6,664,435**

Source: Turkish Chamber of Shipping Statistics

Graph 10. Turkish Merchant Fleet Distribution by Age Groups (DWT/%)



Source: Turkish Chamber of Shipping Statistics

The graph shows the age groups of the Turkish merchant fleet. 22.8% of the fleet is in the 0-9 age range, 45.7% of the fleet is in the 10-19 age range, 22.9% of the fleet is in the 20-29 age range and 8.6% is 30 years old or over.

1.5. The Position of the Turkish Merchant Fleet within the World Fleet

As of January 1st 2023, accounting only for ships with size 1000 GT and above, Turkish fleet under foreign flag is 32.7 million DWT, whereas the total fleet under both Turkish and foreign flag amounts to 38.1 million DWT.

On the other hand, the ratio distribution of the fleet regarding the flags of registration is as follows: 14.3% percent of these ships are registered under the Turkish flag and 85.7% are registered under the foreign flags.

Table 16. Turkish Ships under the National Flag and Foreign Flags (1000 GT and Over)

Years	National Flag			Foreign Flag			Total Fleet Controlled		Years DWT Change %
	No	1000 DWT	%	No	1000 DWT	%	No	1000 DWT	
1999	448	8,697	90.5	69	915	9.5	517	9,612	
2000	456	8,269	90.6	96	855	9.4	552	9,124	-5.1
2001	445	7,321	82.0	107	1,607	18.0	552	8,928	-2.1
2002	451	7,815	83.8	117	1,514	16.2	568	9,329	4.5
2003	432	7,045	79.9	147	1,772	20.1	579	8,817	-5.5
2004	408	6,556	75.2	163	2,159	24.8	571	8,715	-1.2
2005	420	6,427	70.2	237	2,725	29.8	657	9,152	5.0
2006	432	6,844	65.5	353	3,609	34.5	785	10,453	14.2
2007	446	6,464	58.2	424	4,650	41.8	870	11,114	6.3
2008	490	6,592	50.0	513	6,591	50.0	1,003	13,183	18.6
2009	520	6,736	43.9	636	8,592	56.1	1,156	15,328	16.3
2010	560	7,246	42.1	665	9,954	57.9	1,225	17,201	12.2
2011	547	7,797	39.7	672	11,863	60.3	1,219	19,660	14.3
2012	523	8,479	37.6	642	14,093	62.4	1,165	22,572	14.8
2013	627	9,488	31.3	842	20,838	68.7	1,469	30,326	34.4
2014	599	8,580	28.2	890	21,846	71.8	1,489	30,427	0.3
2015	564	8,297	30.2	834	19,209	69.8	1,398	27,507	-9.6
2016	551	8,272	28.4	984	20,879	71.6	1,535	29,151	6.0
2017	525	7,800	26.7	1,022	21,465	73.3	1,547	29,265	0.4
2018	483	7,288	25.5	1,028	21,323	74.5	1,511	28,611	-2.2
2019	457	6,831	23.9	1,027	21,758	76.1	1,484	28,589	-0.1
2020	410	6,194	21.1	1,074	23,157	78.9	1,484	29,352	2.7
2021	384	5,432	18.8	1,108	23,497	81.2	1,492	28,929	-1.4
2022	353	5,157	16.8	1,164	25,523	83.2	1,517	30,680	6.1
2023	345	5,447	14.3	1,352	32,649	85.7	1,697	38,096	24.2

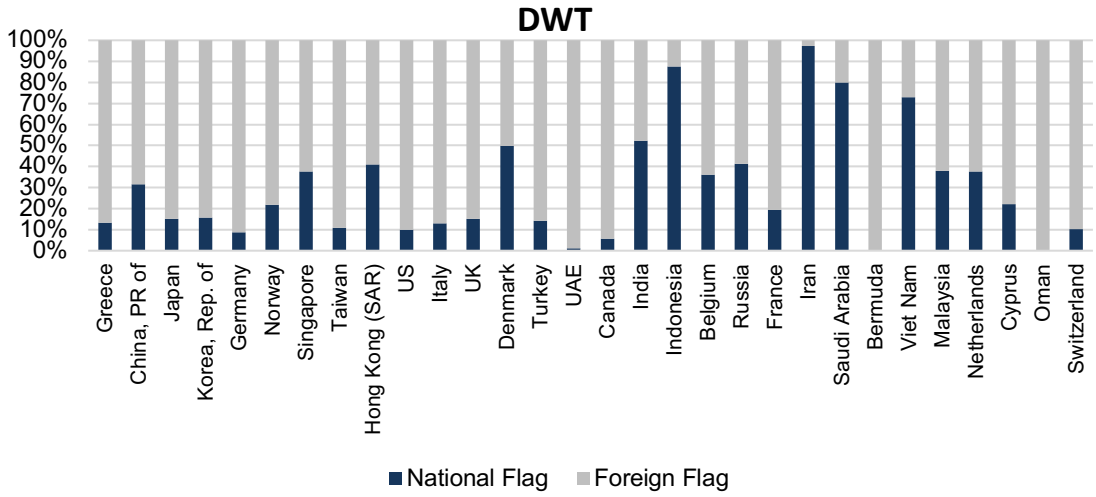
Source: ISL January-February 2023

Table 17. Total Fleet of the 30 Countries by National and Foreign Flags (01 January 2023)
(1000 GT and Over)

Country of Control (DWT-Rank 2023)		National Flag				Foreign Flag				Total Fleet				Foreign Flag DWT Share (%)
		No	1000 DWT	1000 TEU	Age	No	1000 DWT	1000 TEU	Age	No	1000 DWT	1000 TEU	Age	
1	Greece	602	56,196	40	16.2	4,584	368,697	1.946	12.8	5,186	424,893	1,986	13.2	86.8
2	China, PR of	4,931	115,841	1.016	12.8	3,349	252,011	3.237	13.2	8,280	367,851	4,253	12.9	68.5
3	Japan	896	37,718	308	12.4	3,359	214,027	1.975	8.3	4,255	251,745	2,283	9.2	85.0
4	Korea, Rep. of	742	15,566	328	18.1	923	83,662	641	11.7	1,665	99,227	969	14.5	84.3
5	Germany	148	6,689	531	19.5	2,092	70,069	2.926	14.4	2,240	76,758	3,457	14.7	91.3
6	Norway	665	16,786	85	16.2	1,032	59,642	439	15.3	1,697	76,427	524	15.6	78.0
7	Singapore	702	25,838	338	11.1	856	42,927	637	14.7	1,558	68,764	975	13.0	62.4
8	Taiwan	135	6,448	252	16.2	884	53,181	1.391	12.5	1,019	59,628	1,643	13.0	89.2
9	Hong Kong (SAR)	471	23,553	149	10.8	780	34,093	84	19.2	1,251	57,647	233	16.1	59.1
10	US	206	5,718	86	24.7	965	51,377	145	14.9	1,171	57,095	231	16.6	90.0
11	Italy	375	6,869	68	21.5	807	45,968	2.530	15.4	1,182	52,837	2,598	17.3	87.0
12	UK	162	6,457	197	14.5	674	36,596	956	13.0	836	43,054	1,152	13.3	85.0
13	Denmark	363	21,099	1.300	15.5	435	21,262	1.282	14.8	798	42,361	2,582	15.1	50.2
14	Türkiye	345	5,447	70	22.5	1,352	32,649	207	21.1	1,697	38,096	277	21.4	85.7
15	UAE	48	369	6	15.5	801	33,570	206	19.6	849	33,939	212	19.4	98.9
16	Canada	144	1,739	13	23.6	352	28,140	1.266	12.6	496	29,879	1,279	15.8	94.2
17	India	682	15,428	17	15.8	210	14,090	5	17.7	892	29,518	21	16.2	47.7
18	Indonesia	2,141	22,795	194	25.0	107	3,223	47	20.6	2,248	26,017	241	24.8	12.4
19	Belgium	67	8,047	5	10.7	112	14,320	34	11.4	179	22,368	39	11.1	64.0
20	Russia	1,280	8,447	131	30.1	281	12,010	37	23.8	1,561	20,458	168	29.0	58.7
21	France	110	3,743	307	14.9	271	15,661	1.260	13.8	381	19,404	1,568	14.1	80.7
22	Iran	211	18,412	158	21.0	7	512	7	27.6	218	18,924	164	21.2	2.7
23	Saudi Arabia	113	13,050	8	14.6	32	3,299	0	13.0	145	16,349	8	14.2	20.2
24	Bermuda	-	-	-	-	90	15,702	40	8.6	90	15,702	40	8.6	100.0
25	Viet Nam	873	10,871	51	15.8	170	4,057	4	20.3	1,043	14,928	55	16.5	27.2
26	Malaysia	197	5,213	34	18.5	149	8,564	2	14.6	346	13,777	36	16.8	62.2
27	Netherlands	527	4,505	186	15.0	331	7,427	51	15.2	858	11,932	237	15.1	62.2
28	Cyprus	57	2,297	9	17.9	176	8,098	25	17.4	233	10,394	34	17.5	77.9
29	Oman	4	6	-	16.3	59	8,368	7	11.8	63	8,373	7	12.1	99.9
30	Switzerland	15	854	1	8.9	153	7,350	2	13.5	168	8,204	3	13.0	89.6
Total 30 Countries		**17,212**	**465,997**	**5,884**	**17.2**	**25,393**	**1,550,552**	**21,388**	**13.9**	**42,605**	**2,016,549**	**27,273**	**15.2**	**76.9**
Other		**2,765**	**37,897**	**236**	**24.6**	**2,642**	**77,228**	**383**	**22.6**	**5,407**	**115,125**	**619**	**23.6**	**67.1**
Subtotal		**19,977**	**503,894**	**6,121**	**18.3**	**28,035**	**1,627,780**	**21,771**	**14.7**	**48,012**	**2,131,674**	**27,892**	**16.2**	**76.4**
Unknown										**751**	**25,068**	**132**	**25.1**	
World Total										**48,763**	**2,156,742**	**28,024**	**16.3**	

Source: ISL January-February 2023

Graph 11. By Country of Domicile as of 1 January 2023 (1000 GT and Over)

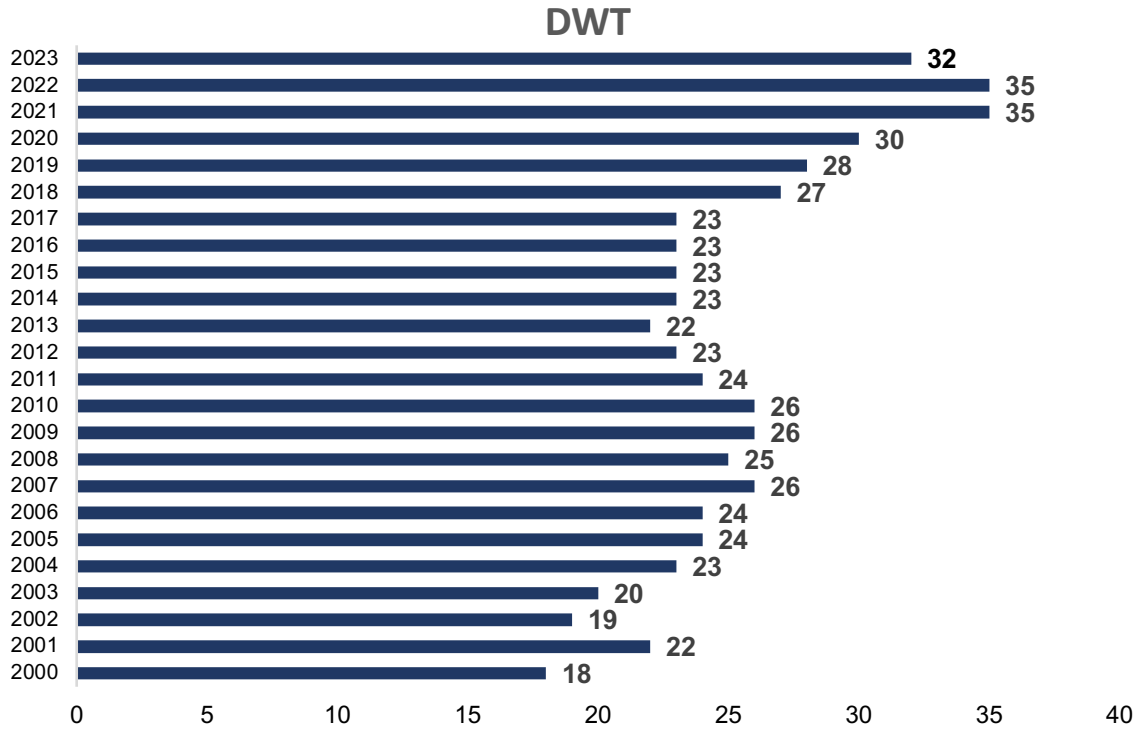


Source: ISL January-February 2023

The World fleet (300 GT and over) consists of 60,004 ships with a total size of 2,166,510.000 DWT based in 160 countries as of 01.01.2023. Turkish merchant fleet is positioned 32th in the world as shown in the Table.

Liberya leads with a share of 17.1%, Panama is second with 16.5% and Marshall Island is third with share of 13.5% of the total registry.

Graph 12. World Merchant Fleet Ranking by Turkish Flag (300 GT and Over)



Source: ISL January-February 2023

Table 18. World Merchant Fleet Ranking by Flag as of 1 January 2023 (300 GT and Over)

DWT Rank 2023	Flag	January 1st, 2022				January 1st, 2023				Total DWT Share%	Years DWT Change%
		No Of Ships	1000 GT	1000 DWT	1000 TEU	No Of Ships	1000 GT	1000 DWT	1000 TEU		
1	Liberia	4,128	201,796	326,858	4,702	4,619	227,799	370,398	5,155	17.1	13.3
2	Panama	6,657	225,013	342,619	3,858	6,881	233,815	358,423	3,898	16.5	4.6
3	Marshall Islands	3,768	171,344	281,531	1,241	3,892	177,673	291,454	1,140	13.5	3.5
4	Hong Kong (SAR)	2,501	130,851	207,596	3,680	2,382	126,469	199,649	3,669	9.2	-3.8
5	Singapore	2,281	86,074	127,160	2,549	2,296	88,838	130,373	2,812	6.0	2.5
6	China, PR of	5,203	69,405	108,995	970	5,780	74,128	116,622	1,017	5.4	7.0
7	Malta	1,900	82,097	113,641	2,243	1,822	80,345	107,607	2,428	5.0	-5.3
8	Greece	855	36,540	62,133	41	831	35,269	59,200	41	2.7	-4.7
9	Bahamas	1,078	52,851	59,858	185	1,054	52,608	58,627	187	2.7	-2.1
10	Japan	2,809	28,805	38,889	257	2,796	29,982	40,694	313	1.9	4.6
11	S. Cyprus	847	21,935	32,776	447	822	20,625	30,502	402	1.4	-6.9
12	UK	546	21,350	30,248	412	510	20,771	29,288	419	1.4	-3.2
13	Portugal/Madeira	702	19,077	25,807	1,117	757	19,916	26,849	1,157	1.2	4.0
14	Indonesia	3,603	17,647	25,044	200	3,738	18,258	25,785	201	1.2	3.0
15	Denmark	556	22,902	26,190	1,478	542	22,324	25,360	1,435	1.2	-3.2
16	Norway	946	16,836	20,735	87	967	16,836	20,652	87	1.0	-0.4
17	Iran	476	11,273	19,873	158	482	11,457	20,216	159	0.9	1.7
18	Korea, Rep. of	1,070	11,859	15,005	259	1,083	13,759	17,454	335	0.8	16.3
19	India	905	9,467	15,948	61	944	10,245	17,137	59	0.8	7.5
20	Saudi Arabia	124	7,600	13,745	8	130	7,369	13,248	8	0.6	-3.6
21	Viet Nam	1,443	6,816	11,370	46	1,437	6,979	11,592	51	0.5	2.0
22	Russia	1,610	7,435	9,399	136	1,603	7,541	9,587	138	0.4	2.0
23	Belgium	92	5,729	9,522	10	89	5,328	8,848	6	0.4	-7.1
24	US	364	7,744	8,562	271	385	7,932	8,705	273	0.4	1.7
25	Italy	606	13,452	9,420	101	593	13,172	8,572	91	0.4	-9.0
26	France	226	7,637	8,174	360	220	8,015	8,273	384	0.4	1.2
27	Germany	219	6,575	6,939	537	214	6,807	7,103	563	0.3	2.4
28	Bermuda	126	10,220	7,539	52	112	9,713	6,681	56	0.3	-11.4
29	Taiwan	208	4,408	6,596	184	210	4,711	6,550	253	0.3	-0.7
30	Cameroon	84	2,186	3,969	2	142	3,629	6,502	6	0.3	63.8
31	Antigua & Barbuda	605	4,668	6,144	307	583	4,750	6,292	308	0.3	2.4
32	**Türkiye**	**679**	**4,351**	**5,726**	**89**	**658**	**4,651**	**6,149**	**90**	**0.3**	**7.4**
33	Cayman Islands	122	3,830	5,998	21	112	3,744	5,971	21	0.3	-0.4
34	Malaysia	446	5,239	5,924	36	435	5,219	5,924	37	0.3	0.0
35	Philippines	1,111	4,059	5,937	49	1,266	4,014	5,820	50	0.3	-2.0
36	Netherlands	729	5,600	5,785	215	713	5,607	5,688	208	0.3	-1.7
37	Palau	221	1,968	3,077	19	323	3,249	5,173	26	0.2	68.1
38	Bangladesh	396	2,492	4,191	10	444	3,005	5,085	10	0.2	21.3
39	Kuwait	47	2,721	4,807	1	47	2,659	4,694	1	0.2	-2.4
40	Thailand	553	3,165	5,226	30	564	2,884	4,567	42	0.2	-12.6
160	**Total**	**58,228**	**1,404,509**	**2,096,259**	**26,932**	**60,004**	**1,452,834**	**2,166,510**	**28,036**	**100.0**	

Source: ISL January-February 2023

1.6. Comparison of the Turkish Merchant Fleet with the Neighbouring Countries

The capacity of the merchant fleet of Türkiye and the neighbouring countries are shown in the following Table (19).

Greece is in the 1st place being among the largest merchant fleets of the world. Southern Cyprus is 2nd, Iran is 3rd, Russia 4th and Türkiye is in 5th place.

In addition to the national flags, when ships 1000 GT and over operating under foreign flags are added to the home registry, Türkiye rises to 38.1 million DWT, Greece to 425 million DWT, Russia to 20.5 million DWT and Iran to 18.9 million DWT.

Table 19. Turkish Merchant Fleet and the Neighbouring Countries (300 GT and Over)

World DWT Rank	Country	No of Ships	1000 DWT	World DWT %	Years DWT Change %
8	**Greece**	831	59,200	2.7	-4.7
11	**S. Cyprus**	822	30,502	1.4	-6.9
17	**Iran**	482	20,216	0.9	1.7
22	**Russia**	1,603	9,587	0.4	2.0
32	**Türkiye**	**658**	**6,149**	**0.3**	**7.4**
56	**Egypt**	104	1,541	0.1	2.0
90	**Ukraine**	98	271	0.0	-13.3
91	**Syria**	11	248	0.0	341.1
106	**Bulgaria**	24	96	0.0	-18.3
120	**Romania**	17	42	0.0	12.4
145	**Georgia**	4	3	0.0	31.8

Source: ISL January-February 2023

CHAPTER II

DEVELOPMENTS IN SEABORNE TRADE

2. DEVELOPMENTS IN SEABORNE TRADE

2.1. Developments in the Transportation of Foreign Trade Cargoes

Global seaborne trade is estimated to have returned close to 2019 levels in 2021, rebounding by 3.2% to 12.0bn tonnes after the impacts of Covid-19 in 2020. In 2022, latest projections were for c.3.5% growth as the global economic post-Covid rebound continued.

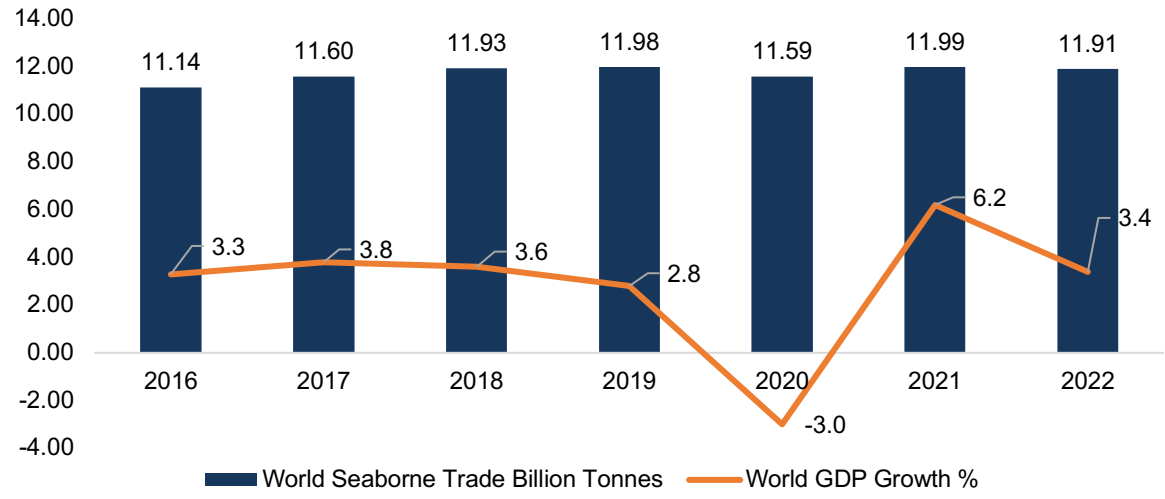
Global seaborne trade is projected to grow by an estimated 1.6% y-o-y in tonnes and 3.0% in tonne-miles in our base case for 2023, after declining by an estimated 0.6% y-o-y in tonnes (-0.5% in tonne-miles) in 2022.

Table 20. World Total Trade and World Seaborne Trade

Years	World Total Trade (all modes) Billion Tonnes	World Seaborne Trade Billion Tonnes	Seaborn Trade as % Total
2011	11.50	9.50	82.0
2012	11.80	9.90	84.0
2013	12.20	10.20	83.0
2014	12.50	10.50	84.0
2015	12.70	10.60	85.0
2016	12.90	11.10	86.0
2017	13.50	11.60	86.0
2018	13.90	11.90	86.0
2019	14.10	12.00	85.0
2020	13.30	11.20	87.0
2021	14.00	11.99	85.0
2022	14.10	11.91	85.0

Source: Clarksons Research March 2023

Graph 13. Global Seaborn Trade Growth



Source: Clarksons Research March 2023

Estimated share of total world trade in 2022 (mt): sea 85%, land 15%, air <1%.

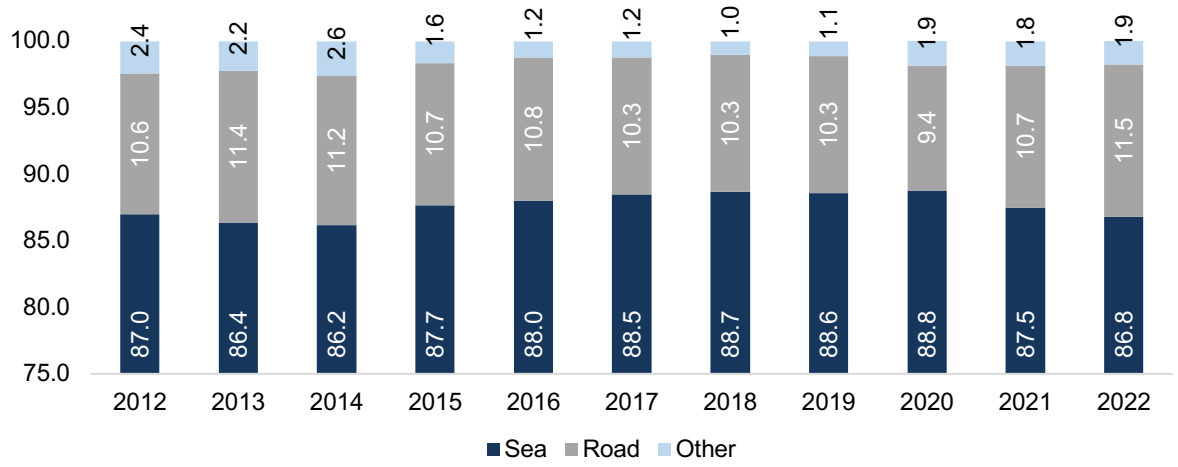
Table 21. Turkish Foreign Trade Transportation by Modes, (%)

Years	Sea	Road	Pipeline and Other	Rail	Air
2011	85.8	11.8	1.2	0.8	0.4
2012	87	10.6	1.4	0.6	0.4
2013	86.4	11.4	1.3	0.5	0.4
2014	86.2	11.2	1.7	0.4	0.5
2015	87.7	10.7	0.7	0.5	0.4
2016	88	10.8	0.4	0.5	0.3
2017	88.5	10.3	0.5	0.4	0.3
2018	88.7	10.3	0.2	0.4	0.4
2019	88.6	10.3	0.3	0.4	0.4
2020	88.8	9.4	1.1	0.6	0.2
2021	87.5	10.7	0.9	0.7	0.2
2022	86.8	11.5	0.6	0.7	0.6

Source: Turkstat

86,85% of Türkiye's foreign trade is being realised by maritime transportation. The progress between the years of 2012-2022 is shown in the Table below by the modes of transportation.

Graph 14. Foreign Trade Transportation by Modes (%)



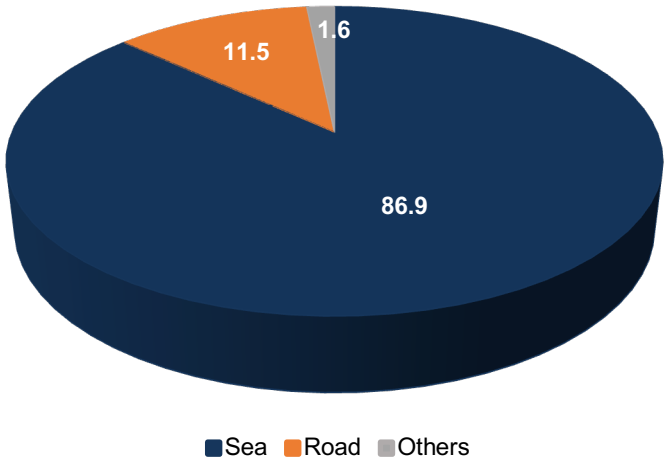
Source: Turkstat

Table 22. Foreign Trade Transportation by Modes (tons) and ($)

Modes	Export Quantity (%)	Import Quantity (%)	Seaborn Trade Quantity %	Export Value US $ %	Import Value US $ %	Seaborn Trade Value US $ %
Sea	80.0	91.9	86.9	59.1	53.3	55.7
Road	18.4	6.5	11.5	31.6	17.3	23.2
Air	0.7	0.1	0.3	8.1	10.6	9.6
Rail	0.9	0.5	0.7	1.0	0.8	0.9
Pipeline and Other	0.0	1.1	0.6	0.2	0.2	0.2
Unknown	0.0	0.0	0.0	0.0	17.8	10.5
Total	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**

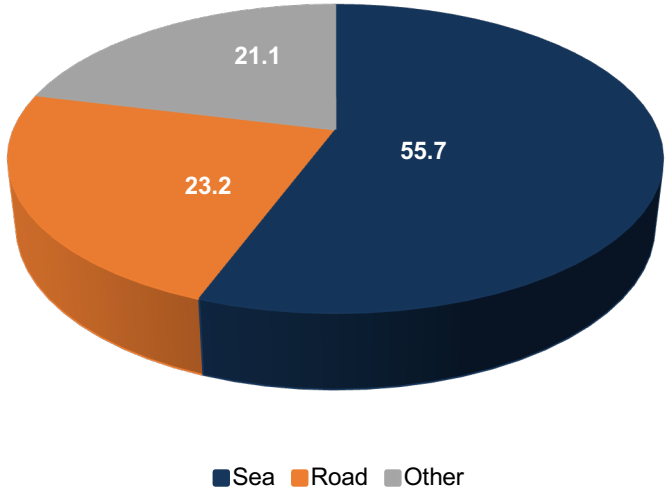
Source: Turkstat

Graph 15. Seaborn Trade Quantity (%)



Source: Turkstat

Graph 16. Seaborn Trade Value (US $/ %)



Source: Turkstat

55,68% of the volume of Türkiye's foreign trade transportation has been carried by sea; 23.17% has been carried by road; 0.88% has been carried by rail; 9.59% has been carried by air and 10,67% has been carried by other transportation modes.

2.2. Developments of Seaborne Trade

The progress of Türkiye's seaborne trade has been examined under two headings: maritime cabotage and international transportation.

2.3. Cabotage Transportation

According to the Turkish Maritime Cabotage Law No. 815, the maritime transportation carried out by Turkish ships, being loaded at the harbors and seaports of Türkiye, and discharged at the harbors and seaports of Türkey, is defined as maritime cabotage.

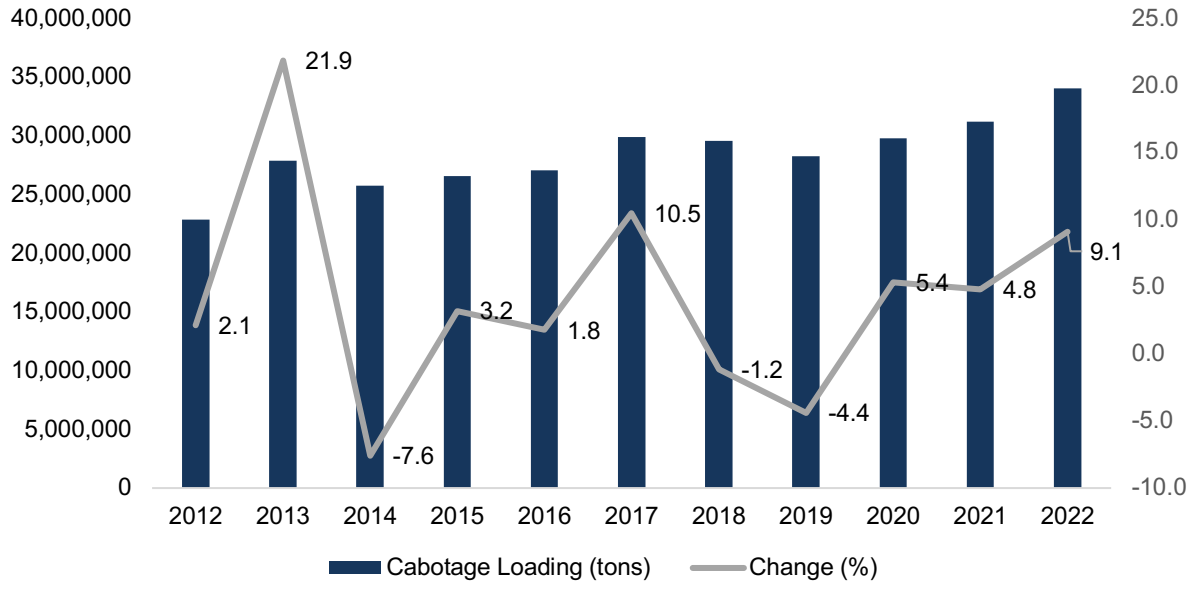
The number of cargoes carried bulk and partially between 2012-2022 in Turkish ports and wharves on ton basis is presented in Table 23.

Table 23. 2012-2022 Cabotage Transportation

Years	Cabotage Loading (tons)	Change (%)
2012	22,869,458	2.1
2013	27,868,157	21.9
2014	25,753,831	-7.6
2015	26,578,284	3.2
2016	27,050,225	1.8
2017	29,898,010	10.5
2018	29,550,554	-1.2
2019	28,251,017	-4.4
2020	29,763,556	5.4
2021	31,184,349	4.8
2022	34,027,952	9.1

Source: Ministry of Transport and Infrastructure, Republic of Türkiye

Graph 17. Rate of Change in Cabotage Transportation Between 2012-2022 (%)



Source: Ministry of Transport and Infrastructure, Republic of Türkiye

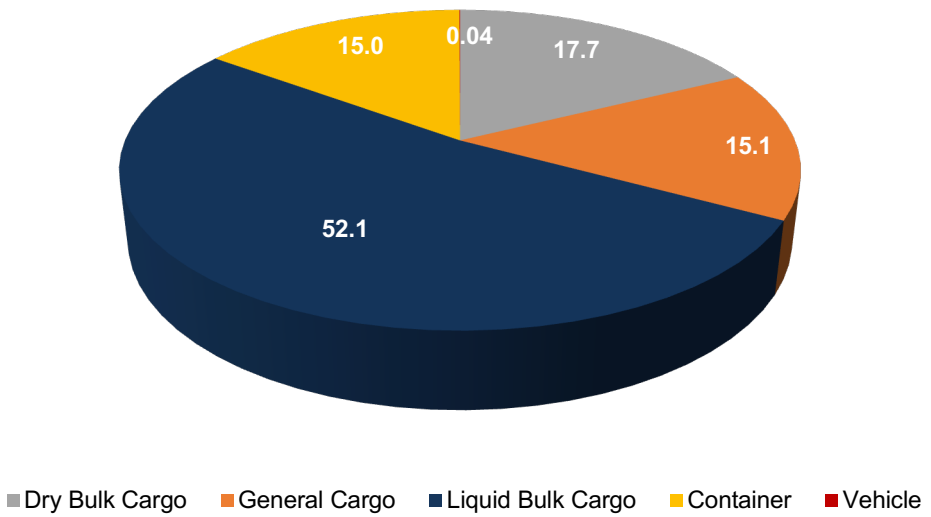
The total cabotage transportation in 2022 is 34,027,952 tons cabotage transportation increased about 48% between the years of 2012-2022.

Table 24. Cabotage Transportation by the Types of Cargoes in 2022 (mtons)

Cargo Types	Catotage Loading	Cabotage Unloading	Total	%
Dry Bulk Cargo	6,207,232	5,751,251	11,958,483	17.7
General Cargo	5,143,985	5,060,448	10,204,433	15.1
Liquid Bulk Cargo	17,631,444	17,565,697	35,197,141	52.1
Container	5,033,465	5,082,704	10,116,169	15.0
Vehicle	11,826	13,224	25,050	0.0
Total	**34,027,952**	**33,473,324**	**67,501,276**	**100.0**

Source: Ministry of Transport and Infrastructure, Republic of Türkiye

Graph 18. 2022 Cabotage Transportation (Loading-Unloading) by the Types of Cargoes (%)



Source: Ministry of Transport and Infrastructure, Republic of Türkiye

Table shows the cabotage transportation by cargo types. The first four cargo types are liquid bulk cargo (52%), dry bulk cargo (18%), general cargo (15%) and container (15%).

The ports with the largest shares in cabotage handling in 2022 are Aliağa Port (18.6%), Kocaeli Port (17.7%) and Iskenderun Port (10.8%).

Table 25. 2022 Cabotage Transportation in Ports

Port Authority	Cabotage Loadıng	Cabotage Unloadıng	Total	%
Aliağa	8,992,279	3,544,289	12,536,568	18.6
Kocaeli	5,469,232	6,505,669	11,974,901	17.7
İskenderun	5,834,112	1,458,830	7,292,942	10.8
Tekirdağ	2,197,939	3,979,771	6,177,710	9.2
Gemlik	1,495,440	1,483,040	2,978,480	4.4
Ambarlı	838,841	2,086,554	2,925,395	4.3
Antalya	546,935	2,333,236	2,880,171	4.3
Ceyhan	1,637,293	1,108,419	2,745,712	4.1
Samsun	974,242	1,512,424	2,486,666	3.7
İstanbul	187,475	2,118,799	2,306,274	3.4
Karadeniz Ereğli	614,770	1,587,552	2,202,322	3.3
Mersin	465,648	1,407,488	1,873,136	2.8
İzmir	457,112	966,551	1,423,663	2.1
Karabiga	652,787	712,752	1,365,539	2.0
Marmara Adası	964,006	1,340	965,346	1.4
Çanakkale	721,515	124,798	846,313	1.3
Bandıma	302,516	361,405	663,921	1.0
Zonguldak	386,982	255,375	642,357	1.0
Tuzla	301,004	341,061	642,065	1.0
Ünye	277,282	136,574	413,856	0.6
Trabzon	138,299	249,465	387,764	0.6
Tirebolu	0	378,160	378,160	0.6
Hopa	368,802	1,774	370,576	0.5
Rize	0	291,440	291,440	0.4
Yalova	18,760	253,955	272,715	0.4
İnebolu	154,247	0	154,247	0.2
Dikili	2,180	81,920	84,100	0.1
Alanya	0	48,048	48,048	0.1
Göcek	0	44,950	44,950	0.1
Çeşme	0	31,145	31,145	0.0
Karasu	0	30,000	30,000	0.0
Fatsa	14,033	12,022	26,055	0.0
Bartın	9,200	7,753	16,953	0.0
Marmaris	0	10,548	10,548	0.0
Silivri	0	3,360	3,360	0.0
Güllük	3,326	0	3,326	0.0
Bodrum	0	1,846	1,846	0.0
Amasra	1,695	0	1,695	0.0
Mudanya	0	700	700	0.0
Taşucu	0	311	311	0.0
Ayvalık	0	0	0	0.0
Giresun	0	0	0	0.0
Sürmene	0	0	0	0.0
Total	**34,027,952**	**33,473,324**	**67,501,276**	**100.0**

Source: Ministry of Transport and Infrastructure, Republic of Türkiye

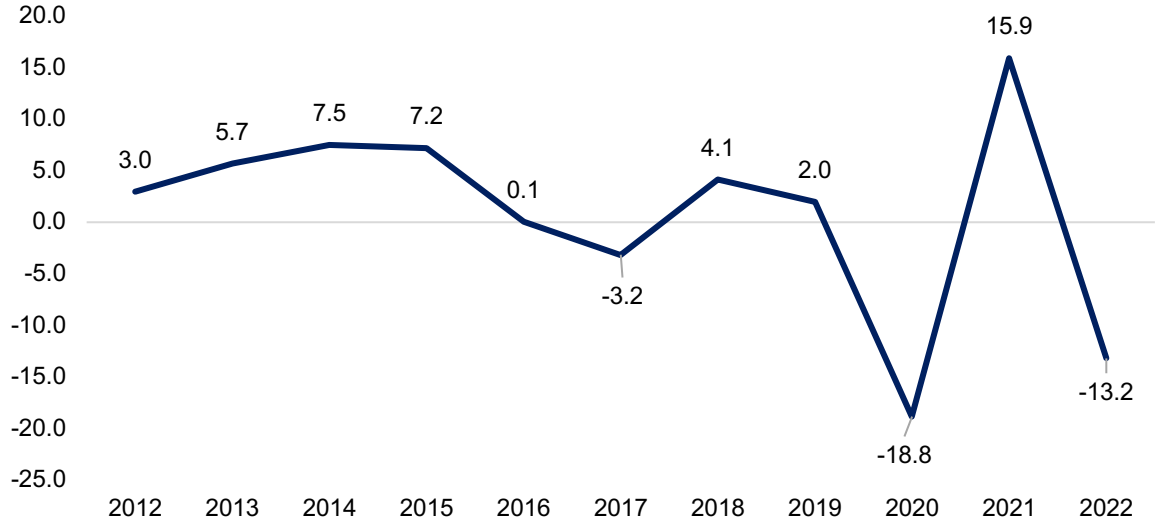
Table 26. 2012-2022 Cabotage Transportation Vehicle Number

Year	Vehicle Number	Vehicle Number Change %	Vehicle (Number x Mile)	Vehicle (Number x Mile) Change %
2012	10,710,645	3.0	77,785,568	-7.1
2013	11,318,561	5.7	85,096,902	8.6
2014	12,166,505	7.5	89,322,962	4.7
2015	13,042,399	7.2	95,505,115	6.5
2016	13,050,241	0.1	92,267,227	-3.4
2017	12,638,289	-3.2	95,185,009	3.2
2018	13,159,820	4.1	92,868,442	-2.4
2019	13,420,802	2.0	92,289,144	-0.6
2020	10,892,467	-18.8	70,059,483	-24.1
2021	12,619,473	15.9	80,295,012	14.6
2022	10,958,382	-13.2	73,097,769	-8.9

Source: Ministry of Transport and Infrastructure, Republic of Türkiye

In Table 26, the changes in cabotage transportation of vehicles between the years 2012 and 2022 are being shown. The number of carried vehicles increased 2.3% in total between 2012 and 2022.

Graph 19. 2012-2022 Cabotage Transportation Vehicle Number Change (%)



Source: Ministry of Transport and Infrastructure, Republic of Türkiye

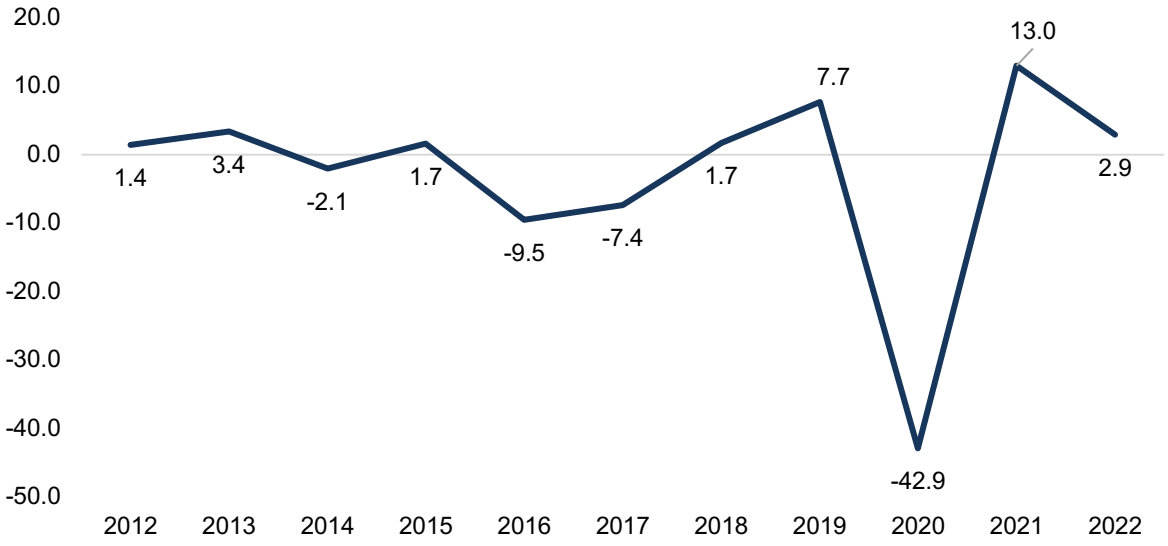
In Table 27, the changes in cabotage transportation of passengers between the years 2012 and 2022 are being shown. The number of passengers carried decreased 37.2% in total between 2012 and 2022.

Table 27. 2012-2022 Cabotage Transportation Passenger Number

Years	Passenger Number	Annual Change (%)	Passenger (Number x Mile)	Annual Change (%)
2012	159,076,921	1.4	787,572,051	-8.6
2013	164,426,997	3.4	900,226,869	12.5
2014	161,048,004	-2.1	974,923,011	7.7
2015	163,723,544	1.7	992,592,392	1.8
2016	148,101,589	-9.5	1,112,255,126	10.8
2017	137,195,691	-7.4	1,138,826,307	2.4
2018	139,556,332	1.7	1,134,349,263	-0.4
2019	150,312,216	7.7	1,218,893,742	7.5
2020	85,866,238	-42.9	650,022,306	-46.7
2021	97,045,463	13.0	751,019,255	15.5
2022	99,825,813	2.9	550,524,602	-26.7

Source: Ministry of Transport and Infrastructure, Republic of Türkiye

Graph 20. 2012-2022 Cabotage Transportation Passenger Number (%)



Source: Ministry of Transport and Infrastructure, Republic of Türkiye

2.4. Developments in International Sea Transportation

International sea transportation includes all transit cargoes that are loaded and unloaded in the harbors of Türkiye and Turkish exports and imports goods.

Table 28. Share of Turkish Flagged Vessels Within International Shipping (Tons), 2012-2022

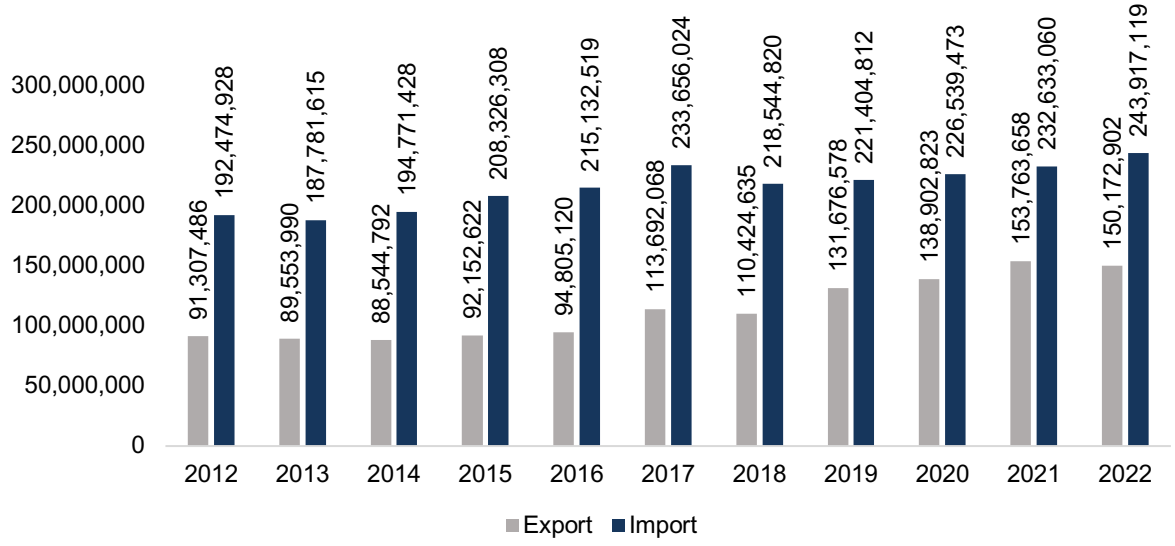
Years	Seaborne Trade Total	Export	Import	Turkish Flag	Turkish Flag (%)	Foreign Flag (%)
2012	283,782,414	91,307,486	192,474,928	38,712,247	14	86
2013	277,335,605	89,553,990	187,781,615	34,610,534	12	88
2014	283,316,220	88,544,792	194,771,428	33,624,322	12	88
2015	300,478,930	92,152,622	208,326,308	36,479,586	12	88
2016	309,937,639	94,805,120	215,132,519	38,623,279	12	88
2017	347,348,092	113,692,068	233,656,024	36,815,820	11	89
2018	328,969,455	110,424,635	218,544,820	35,510,231	11	89
2019	353,081,390	131,676,578	221,404,812	27,895,737	8	92
2020	365,442,296	138,902,823	226,539,473	29,679,160	8	92
2021	386,396,718	153,763,658	232,633,060	29,999,196	8	92
2022	394,090,021	150,172,902	243,917,119	28,443,135	7	93

Source: Ministry of Transport and Infrastructure, Republic of Türkiye

Compared with the previous year, export shipments increased to 150 million tons, import shipments increased to 394 million tons in 2022. The share of Turkish flag vessels transporting foreign trade cargoes has been realized as 7% on average.

As a whole, the share of the Turkish flag vessels transporting foreign trade cargoes between 2012-2022 has been realized as 10% on the average.

Graph 21. Development of the Seaborne Trade (Tons)



Source: Ministry of Transport and Infrastructure, Republic of Türkiye

The transportation of foreign trade cargoes by Turkish flag vessels includes 6% of the total of 243 million tonnes imports and 9% of the total of 150 million tonnes exports.

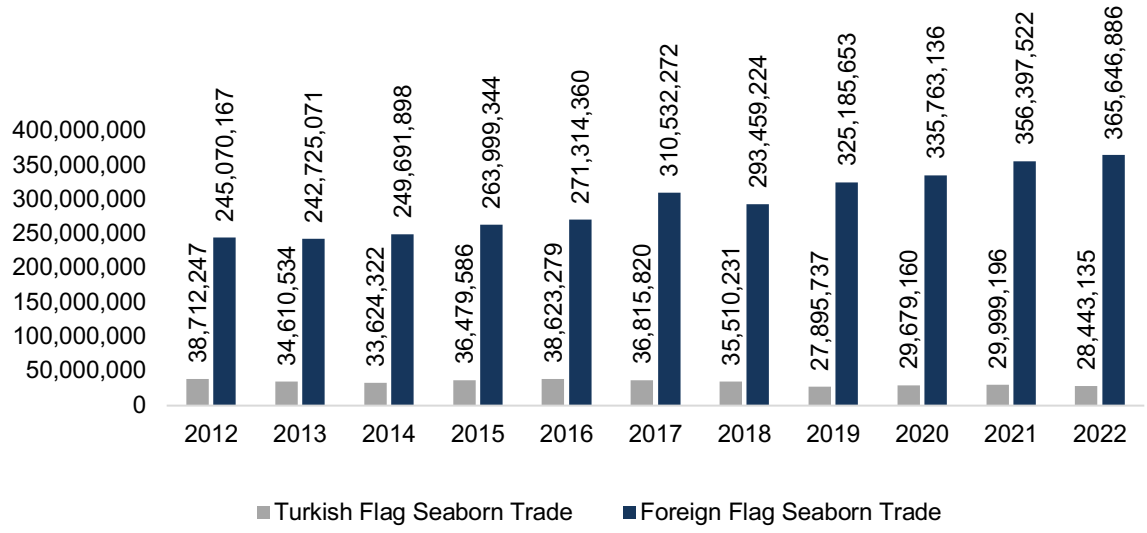
Table 29. Foreign Trade Transportation by Flags (Tons)

Years	Turkish Flag					Foreign Flag				
	Import	%	Export	%	Seaborn Trade	Import	%	Export	%	Seaborn Trade
2012	26,476,350	14.0	12,235,897	13.0	38,712,247	165,998,578	86.0	79,071,589	87.0	245,070,167
2013	22,949,887	12.0	11,660,647	13.0	34,610,534	164,831,728	88.0	77,893,343	87.0	242,725,071
2014	20,880,367	11.0	12,743,955	14.0	33,624,322	173,891,061	89.0	75,800,837	86.0	249,691,898
2015	22,724,776	11.0	13,754,810	15.0	36,479,586	185,601,532	89.0	78,397,812	85.0	263,999,344
2016	23,350,424	11.0	15,272,855	16.0	38,623,279	191,782,095	89.0	79,532,265	84.0	271,314,360
2017	21,677,485	9.0	15,138,335	13.0	36,815,820	211,978,539	91.0	98,553,733	87.0	310,532,272
2018	19,850,109	9.0	15,660,122	14.0	35,510,231	198,694,711	91.0	94,764,513	86.0	293,459,224
2019	13,763,576	6.0	14,132,161	11.0	27,895,737	207,641,236	94.0	117,544,417	89.0	325,185,653
2020	16,098,249	7.0	13,580,911	10.0	29,679,160	210,441,224	93.0	125,321,912	90.0	335,763,136
2021	15,257,051	7.0	14,742,145	10.0	29,999,196	217,376,009	93.0	139,021,513	90.0	356,397,522
2022	14,634,461	6.0	13,808,674	9.0	28,443,135	229,282,658	94.0	136,364,228	91.0	365,646,886

Source: Ministry of Transport and Infrastructure, Republic of Türkiye

A comparison between 2012 and 2022 of the transportation of foreign trade cargoes reveals that the total amount increased from 283 million tons in 2012 to 394 million tonnes in 2022. Import goods increased from 192 million tons to 243 million tons, whereas export goods increased from 91 million tons to 150 million tons.

Graph 22. Turkish/Foreign Flag Shares (Tons)



Source: Ministry of Transport and Infrastructure, Republic of Türkiye

The share of Turkish flag vessels in total foreign trade transportation increased to 13 million tons for exports and decreased to 14 million tons for imports in 2022 when compared to 12 and 26 million tons respectively in 2012.

The share of foreign flag vessels in total foreign trade transportation, increased to 136 million tons for exports and also increased to 229 million tons for imports in 2022, when compared with the 79 and 165 million tons in 2012.

2.5. Developments in Foreign Trade Transportation by Types of Cargoes

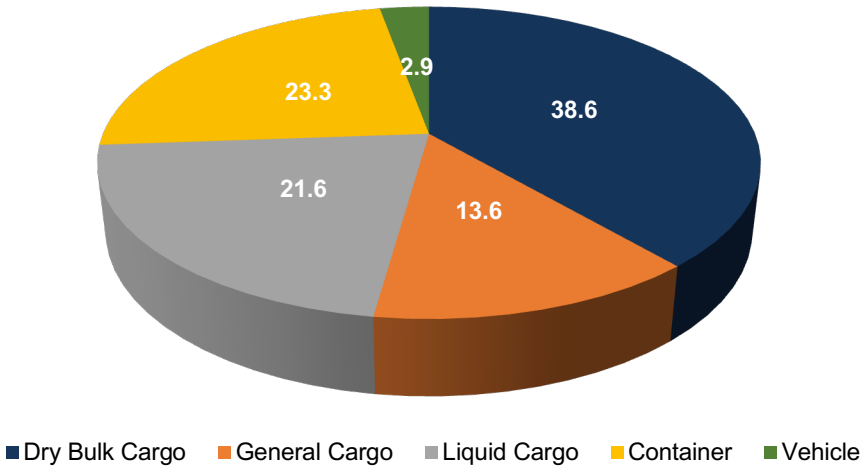
The major shipping segments of the 394 million tons seaborn trade goods in 2022, are 39% Dry Bulk Cargo, 23% Container, 22% Liquid Bulk Cargo,13% General Cargo and 3% Vehicles.

Table 30. Export and Import by Cargo Types

Cargo Types	Export	Import	Seaborn Trade	Transit Loading Unloading	Total Loading Unlading
Dry Bulk Cargo	53,893,719	98,361,181	152,254,900	1,082,358	153,337,258
General Cargo	21,448,487	32,099,289	53,547,776	815,175	54,362,951
Liquid Cargo	15,629,517	69,612,852	85,242,369	50,761,639	136,004,008
Container	53,110,090	38,658,736	91,768,826	28,359,814	120,128,640
Vehicle	6,091,089	5,185,061	11,276,150	0	11,276,150
Total	**150,172,902**	**243,917,119**	**394,090,021**	**81,018,986**	**475,109,007**

Source: Ministry of Transport and Infrastructure, Republic of Türkiye

Graph 23. Export and Import by Cargo Types



Source: Ministry of Transport and Infrastructure, Republic of Türkiye

Major shipping segments of the 394 million tons export-imports and 81 million tons transit loading-unloading goods in 2022 are 32% Liquid Bulk Cargo, 30% Dry Bulk Cargo, 24% Container, 12% General Cargo and 2% vehicles.

2.6. The Progress in Seaborne Trade by Country Groups

In 2022, 81 million tons of exports and 82 million tons of imports, totally transit (loading-unloading) 50 million tons of transportation have been realized to the OECD countries. Table shows the export and import values to the OECD countries.

Table 31. Seaborne Export and Import, Transit Handling of Türkiye and OECD Countries in 2022

OECD Country	Export	Import	Seaborn Trade	Transit Loading	Transit Unloading	Total
Italy	14,756,240	8,280,942	23,037,182	36,518,623	348,109	59,903,914
U.S.	16,267,238	15,913,157	32,180,395	386,264	220,327	32,786,986
Isreal	10,676,543	6,309,655	16,986,198	1,217,968	570,247	18,774,413
Spain	11,571,247	3,409,527	14,980,774	2,566,460	653,749	18,200,983
Greece	5,976,893	8,343,882	14,320,775	1,203,856	1,137,885	16,662,516
Belgium	5,875,362	5,122,120	10,997,482	517,779	521,770	12,037,031
Colombia	227,992	11,554,031	11,782,023	0	0	11,782,023
Holland	3,599,904	3,558,283	7,158,187	308,963	89,371	7,556,521
France	3,377,893	3,043,518	6,421,411	441,798	65,432	6,928,641
S.Korea	1,101,018	2,934,188	4,035,206	228,509	506,050	4,769,765
Australia	16,321	3,507,731	3,524,052	250,702	12,773	3,787,527
Portugal	1,700,710	647,061	2,347,771	1,277,254	78,768	3,703,793
Canada	1,771,019	1,435,080	3,206,099	62,331	106,084	3,374,514
Germany	811,872	1,347,214	2,159,086	150,704	83,219	2,393,009
Norway	188,387	1,862,399	2,050,786	92,304	350	2,143,440
Denmark	291,987	1,006,436	1,298,423	0	0	1,298,423
Lithuanian	83,616	984,887	1,068,503	26,359	0	1,094,862
Poland	638,533	368,971	1,007,504	23,559	21,103	1,052,166
Sweden	476,686	451,619	928,305	0	2,764	931,069
Latvia	350,292	538,211	888,503	0	5,737	894,240
Finland	91,300	766,029	857,329	0	276	857,605
İrlanda	203,786	11,963	215,749	545,903	0	761,652
Slovenia	308,892	198,792	507,684	31,359	17,367	556,410
Japan	120,599	396,702	517,301	2,636	7,209	527,146
Estonia	24,234	426,919	451,153	0	16,441	467,594
Chile	263,832	14,107	277,939	50,300	24,952	353,191
Mexico	141,606	138,631	280,237	0	8,311	288,548
Iceland	166,808	0	166,808	0	0	166,808
U.K.	102,699	31,363	134,062	6,837	8,816	149,715
Switzerland	3,028	0	3,028	0	0	3,028
New Zealand	294	1,637	1,931	0	0	1,931
Total	**81,186,831**	**82,605,055**	**163,791,886**	**45,910,468**	**4,507,110**	**214,209,464**

Source: Ministry of Transport and Infrastructure, Republic of Türkiye

In 2022, the seaborne trade volume between Türkiye and the OECD countries was 214 million metric tons of which 163 million metric tons were import-exports while 50 million metric tons were transit cargoes.

In the year 2022, 58 million tons of exports and 47 million tons of imports or totally 105 million tons of seaborne transportation have been realized to the EU countries.

Table 32. Seaborne Trade (Export-Import) to EU Countries and Transit Loading /Unloading (Tons)

EU Countries	Export	Import	Seaborn Trade	Transit Loading	Transit Unloading	Total Handling
Italy	14,756,240	8,280,942	23,037,182	36,518,623	348,109	59,903,914
Spain	11,571,247	3,409,527	14,980,774	2,566,460	653,749	18,200,983
Greece	5,976,893	8,343,882	14,320,775	1,203,856	1,137,885	16,662,516
Belgium	5,875,362	5,122,120	10,997,482	517,779	521,770	12,037,031
Romania	4,977,666	3,000,648	7,978,314	1,716,665	1,086,681	10,781,660
Holland	3,599,904	3,558,283	7,158,187	308,963	89,371	7,556,521
France	3,377,893	3,043,518	6,421,411	441,798	65,432	6,928,641
Bulgaria	1,712,729	2,190,703	3,903,432	932,663	753,005	5,589,100
Malta	1,291,921	2,288,703	3,580,624	103,646	74,906	3,759,176
Portugal	1,700,710	647,061	2,347,771	1,277,254	78,768	3,703,793
Crotia	408,668	708,423	1,117,091	1,364,746	0	2,481,837
Germany	811,872	1,347,214	2,159,086	150,704	83,219	2,393,009
Denmark	291,987	1,006,436	1,298,423	0	0	1,298,423
Latvia	83,616	984,887	1,068,503	26,359	0	1,094,862
Polland	638,533	368,971	1,007,504	23,559	21,103	1,052,166
Sweden	476,686	451,619	928,305	0	2,764	931,069
Letonya	350,292	538,211	888,503	0	5,737	894,240
Finland	91,300	766,029	857,329	0	276	857,605
Ireland	203,786	11,963	215,749	545,903	0	761,652
Slovenia	308,892	198,792	507,684	31,359	17,367	556,410
Estonia	24,234	426,919	451,153	0	16,441	467,594
Total	**58,530,431**	**46,694,851**	**105,225,282**	**47,730,337**	**4,956,583**	**157,912,202**

Source: Ministry of Transport and Infrastructure, Republic of Türkiye

In 2022, 21 million tons of exports and 95 million tons of imports, totally 115 million tons seaborne transportation have been realized to the BSEC countries.

Table 33. Seaborne Trade to BSEC Countries (Tons)

BSEC Countries	Export	Import	Seaborn Trade	Transit Loading	Transit Unloading	Total Handling
Russian	3,535,432	72,059,264	75,594,696	1,102,684	1,916,421	78,613,801
Greece	5,976,893	8,343,882	14,320,775	1,203,856	1,137,885	16,662,516
Romania	4,977,666	3,000,648	7,978,314	1,716,665	1,086,681	10,781,660
Ukraine	1,433,813	7,440,037	8,873,850	307,349	438,558	9,619,757
Bulgaria	1,712,729	2,190,703	3,903,432	932,663	753,005	5,589,100
Georgia	876,647	1,658,758	2,535,405	1,094,576	587,292	4,217,273
Albania	1,197,002	76,938	1,273,940	17,392	35,343	1,326,675
Moldova	964,794	249,451	1,214,245	0	0	1,214,245
Azerbaijan	6,984	0	6,984	561	603	8,148
Total	**20,681,960**	**95,019,681**	**115,701,641**	**6,375,746**	**5,955,788**	**128,033,175**

Source: Ministry of Transport and Infrastructure, Republic of Türkiye

2.7. World Container Fleet by Country of Domicile

The “country of domicile” examination (including container ships of 1000 GT and over) shows that at the beginning of 2022, 24,683,000 TEU of the container capacity was not registered in the country of domicile of the owner but flagged out.

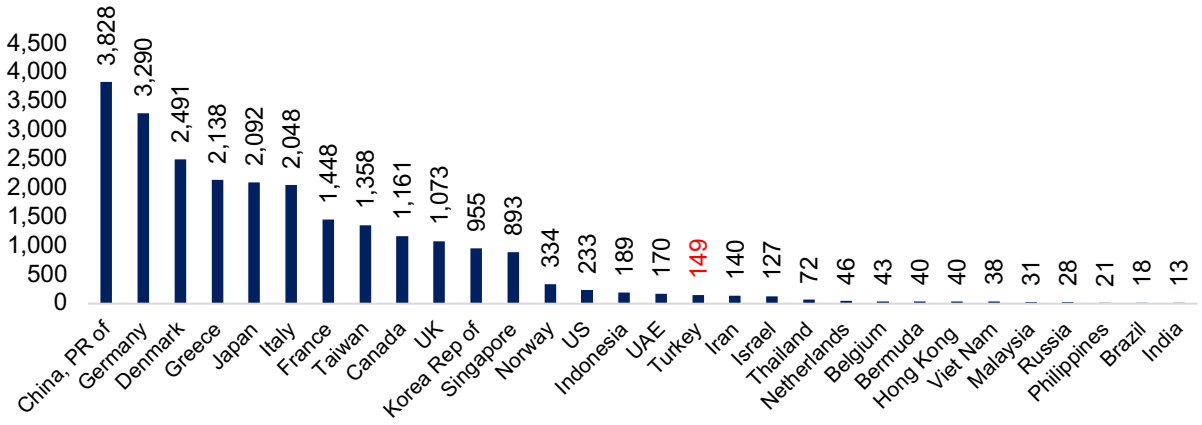
Table 34. World Full Container Fleet by Country of Domicile (1000 GT and over) 2022

SWT Rank	Country of Control	No	1000 DWT	1000 TEU	Av.Age	DWT% Change
1	China, PR of	810	44,424	3,828	11.6	2.6
2	Germany	890	40,313	3,290	13.8	-9.5
3	Denmark	338	28,780	2,491	12.8	-2.4
4	Greece	484	26,071	2,138	14.1	0.7
5	Japan	332	23,371	2,092	7.9	4.1
6	Italy	332	24,676	2,048	17.4	20.6
7	France	186	16,518	1,448	11.1	17.2
8	Taiwan	316	16,285	1,358	11.9	26.4
9	Canada	136	13,273	1,161	9.7	10.3
10	UK	201	13,032	1,073	13.1	7.6
11	Korea Rep of	211	10,804	955	12.4	18.0
12	Singapore	233	10,700	893	13.1	17.8
13	Norway	61	3,975	334	12.0	-8.9
14	US	85	3,106	233	16.2	-7.8
15	Indonesia	230	2,746	189	16.8	-3.0
16	UAE	84	2,277	170	19.4	17.4
17	**Türkiye**	**88**	**1,988**	**149**	**17.2**	**4.5**
18	Iran	29	1,661	140	13.8	-
19	Israel	36	1,584	127	10.6	-23.2
20	Thailand	54	926	72	17.0	33.1
21	Netherlands	44	562	46	15.1	-30.4
22	Belgium	15	550	43	11.4	-37.8
23	Bermuda	4	467	40	5.5	-
24	Hong Kong	32	557	40	20.1	-20.7
25	Viet Nam	46	531	38	18.3	10.7
26	Malaysia	34	437	31	20.1	28.5
27	Russia	26	353	28	20.2	5.2
28	Philippines	42	277	21	25.4	-3.8
29	Brazil	7	250	18	10.2	16.7
30	India	7	178	13	15.2	-7.9
Total 30 countries		5,393	290,671	24,507	13.4	4.3
Others		130	1,496	113	22.4	28.1
Unknown		28	812	63	18.8	
World Total		**5,551**	**292,978**	**24,683**	**13.6**	**4.5**

Source: ISL 2022

With respect to the owner countries, Chine shipowners control by far the largest part of the world container fleet, namely 3.8 million TEU (810 container vessels) followed by Germany 3.3 million TEU (890 container vessels) and Denmark 2.5 million TEU (338 container vessels).

Graph 24. World Full Container Fleet by Country of Domicile (1000 GT and over) 2022 (1000 TEU)



Source: ISL January-February 2023

TEU based container transportations in 2022 realized as follows in their respective subgroups; exports became 4.7 million TEU, imports 4.8 million TEU, cabotage handling 820,950 TEU and transit handling 2 million TEU.

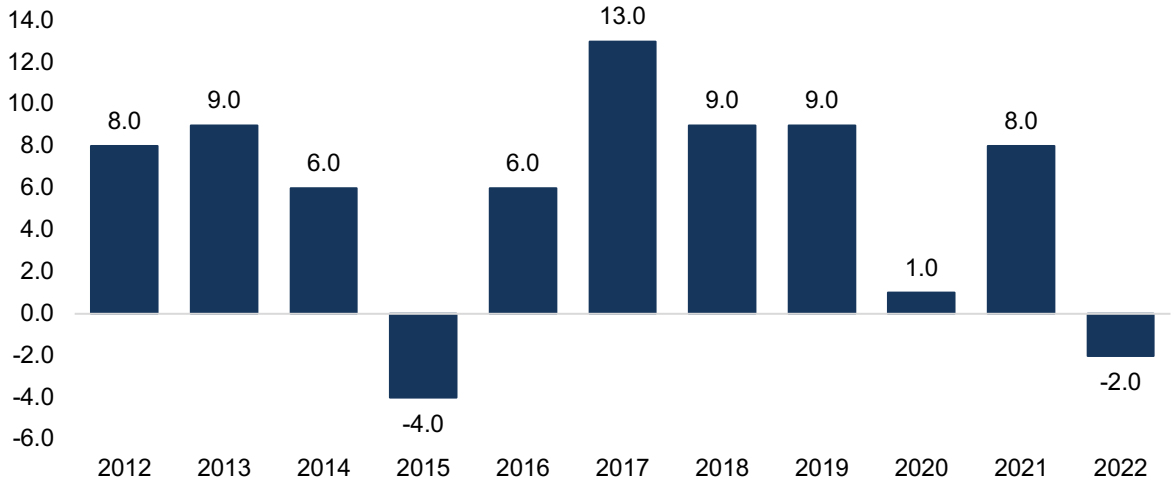
Transportation volume of Türkiye's container transports by seaway was 6.7 million TEU in 2012; in 2022 it became 11.5 million TEU, at the same period imports cargoes increased to 2.9 million TEU from 4.8 million TEU and the exports cargoes increased to 2.8 million TEU when compared with 4.7 million TEU in 2012.

Table 35. Container Handling 2012-2022 (TEU)

Years	LOADING (TEU)			UNLOADING (TEU)			SEA BORN TRADE (TEU)			
	Cabotage	Export	Total	Cabotage	Import	Total	Export + Import	Transit Handling	Total	Change (%)
2012	236,905	2,879,122	3,116,027	235,440	2,942,562	3,178,001	5,821,683	898,368	6,720,051	8
2013	274,589	3,165,653	3,440,242	269,908	3,199,969	3,469,877	6,365,622	989,815	7,355,437	9
2014	266,997	3,488,008	3,755,005	260,067	3,581,811	3,841,878	7,069,819	754,238	7,824,057	6
2015	305,882	3,394,508	3,700,390	300,182	3,454,345	3,754,527	6,848,854	691,481	7,540,335	-4
2016	365,517	3,543,804	3,909,321	372,795	3,607,086	3,979,881	7,150,890	872,772	8,023,662	6
2017	467,384	3,866,874	4,334,258	468,137	3,975,205	4,443,341	7,842,079	1,232,937	9,075,015	13
2018	453,030	4,160,124	4,613,154	482,631	4,259,029	4,741,661	8,419,153	1,489,184	9,908,337	9
2019	359,958	4,594,647	4,954,605	393,309	4,540,201	4,933,510	9,134,849	1,703,722	10,838,571	9
2020	370,088	4,618,225	4,988,313	361,264	4,480,472	4,841,736	9,098,697	1,796,601	10,895,298	1
2021	410,755	4,677,414	5,088,169	421,232	4,744,227	5,165,459	9,421,640	2,337,843	11,759,483	8
2022	407,267	4,694,918	5,102,185	413,682	4,814,757	5,228,439	9,509,675	2,035,758	11,545,433	-2

Source: Ministry of Transport and Infrastructure, Republic of Türkiye

Graph 25. Yearly Change of Foreign Trade Between 2012-2022(TEU %)



Source: Ministry of Transport and Infrastructure, Republic of Türkiye

Table 36. Port Authority Handled Container (TEU)

Port Authority	Export	Import	Cabotage Handling	Transit Handling	Total Handling
Aliağa	940,189	1,045,768	156,189	725,069	2,867,215
Ambarlı	957,058	932,889	60,679	108,685	2,059,310
Antalya	921,963	944,705	53,597	69,320	1,989,585
Bandırma	245,786	256,706	207,848	1,062,888	1,773,228
Bartın	762,715	677,575	35,523	18,029	1,493,841
Gemlik	355,295	350,483	143,490	39,581	888,849
İskenderun	312,738	323,875	11,575	11,147	659,335
İstanbul	139,960	196,912	53,066	336	390,275
İzmir	35,226	45,028	26,382	0	106,636
Karabiga	19,101	32,202	41,577	0	92,881
Karasu	4,583	6,843	5,406	700	17,532
Kocaeli	282	1,636	10,693	0	12,611
Marmara Island	0	0	12,291	0	12,291
Marmaris	0	0	1,389	0	1,389
Mersin	0	0	1,195	0	1,195
Samsun	0	110	0	0	110
Tekirdağ	0	24	49	0	73
Trabzon	15	0	0	0	15
Tuzla	8	2	0	0	10
Zonguldak	0	0	0	2	2
Total	**4,694,918**	**4,814,757**	**820,949**	**2,035,758**	**12,366,382**

Source: Ministry of Transport and Infrastructure, Republic of Türkiye

Table 37. Seaborne Export and Import, Transit Handling of Türkiye and Country 2022 TEU

Country	Export	Import	Seaborn Trade	Transit Loading	Transit Unloading	Total Handling
Egypt	580,651	525,446	1,106,097	72,261	46,050	1,224,408
Greece	393,161	646,375	1,039,537	33,691	82,113	1,155,340
Israel	329,304	714,214	1,043,517	22,193	50,721	1,116,431
Spain	380,605	156,066	536,670	45,089	40,736	622,495
Italy	306,502	210,656	517,157	62,961	25,849	605,968
Belgium	293,360	197,307	490,667	21,780	38,306	550,753
Chine	214,964	170,918	385,882	42,577	104,263	532,721
Russia	169,925	187,389	357,314	65,828	95,316	518,458
U.S.	175,832	269,079	444,911	29,342	23,257	497,510
Saudi Arabia	159,388	117,723	277,111	90,371	56,531	424,012
Morocco	281,648	95,366	377,015	20,277	5,094	402,386
Libya	123,933	174,323	298,256	14,714	5,718	318,687
Georgia	55,406	128,827	184,233	90,382	35,171	309,786
U.K.	193,262	82,109	275,371	13,172	8,326	296,868
Romania	69,086	52,809	121,895	80,068	88,871	290,834
Lebanon	48,595	203,038	251,632	21,225	10,640	283,497
Singapore	140,539	77,656	218,196	41,003	17,377	276,576
Korea Rep.of	106,978	112,015	218,992	22,181	34,130	275,303
Malta	50,272	211,491	261,763	2,170	5,082	269,015
U.A.E.	127,306	32,125	159,431	39,132	21,361	219,923
Other	494,204	449,827	944,031	204,352	206,083	1,354,465
Total	**4,694,919**	**4,814,757**	**9,509,675**	**1,034,766**	**1,000,993**	**11,545,434**

Source: Ministry of Transport and Infrastructure, Republic of Türkiye

As of 2022, the countries which Türkiye performed foreign trade with / conducted transit container transportation are as follows: Greece, Israel, and Egypt. The data of the foreign trade/transit container transportation of top 20 countries are shown in the Table 37.

2.8. Vehicle Transportation Through Ro-Ro Lines

Ro-Ro lines of Türkiye in 2022 are shown below. Table 38 above shows the amounts of the transported full vehicles (export and import) in the years 2022.

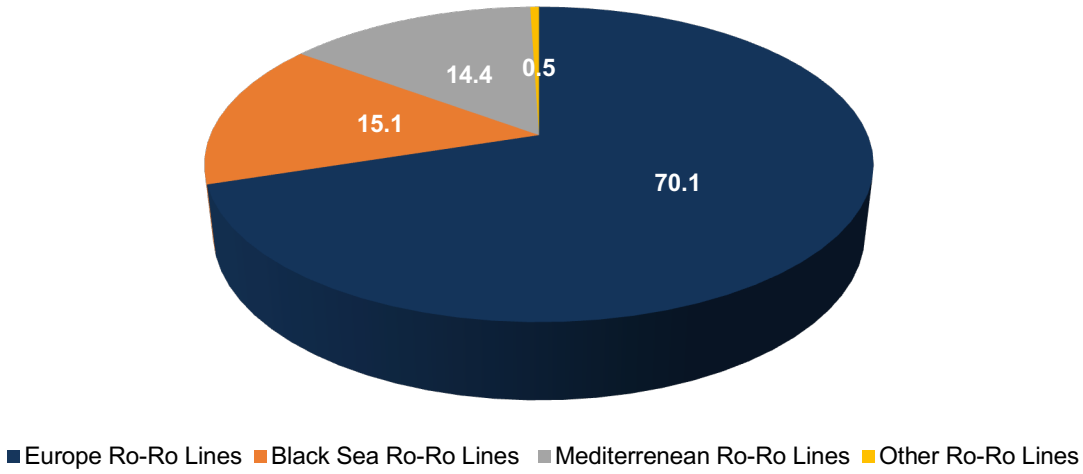
Table 38. Ro-Ro Lines Transported Vehicles 2022

Region	Lines	Incoming Vehicle	Outbond Vehicle	Total Transported Vehicle
Europe	Tuzla (Pendik) - Trieste	108,599	108,005	216,604
	Yalova - Sete	58,157	60,210	118,367
	Çeşme - Trieste	34,848	35,165	70,013
	Mersin - Trieste	32,893	24,924	57,817
	İzmir - Tarragona	6,542	7,128	13,670
	Yalova - Lavrio - Trieste	3,099	5,370	8,469
	Tuzla (Pendik) - Patras	2,978	2,822	5,800
	Yalova - Bari	1,307	3,349	4,656
	Çeşme - Sakız Adası	393	1,221	1,614
	Tuzla (Pendik) - Bari	795	684	1,479
	İzmir - Sete	527	746	1,273
	İzmir - Selanik	24	917	941
	Yalova - Tarragona	470	390	860
	Kocaeli - Zeebrugge	0	794	794
	Yalova - Patras	680	0	680
	Gemlik - Salerno	400	47	447
	Kocaeli - Anvers	218	28	246
	Kocaeli - Bremerhaven	0	224	224
	Kocaeli - Portbury	0	134	134
Total Europe Ro-Ro Lines		**251.930**	**252,158**	**504,088**
Black Sea	Samsun - Tuapse	20,779	21,362	42,141
	Samsun - Novorossiysk	19,163	22,006	41,169
	Karasu - Çornomorsk	3,693	3,406	7,099
	Samsun - Temrük	2,718	3,180	5,898
	Samsun - Kavkaz	1,852	2,618	4,470
	Karasu - Kavkaz	1,627	2,075	3,702
	Zonguldak - Çornomorsk	899	976	1,875
	İstanbul (Haydarpaşa) - Çornomorsk	723	675	1,398
	Karasu - Tuapse	247	308	555
Tota Black Sea Ro-Ro Lines		**51.701**	**56,606**	**108,307**
Mediterranean	Mersin - Gazimağusa	19,647	19,384	39,031
	Taşucu - Girne	12,745	14,048	26,793
	Taşucu - Tripoli (Lübnan)	13,311	13,363	26,674
	Mersin - Hayfa	4,042	4,336	8,378
	Mersin - Girne	1,264	637	1,901
	Taşucu - Gazimağusa	614	26	640
	Kocaeli - Aşdod	5	122	127
Total Mediterrenean Ro-Ro Lines		**51.628**	**51,916**	**103,544**
Indian Ocean	İskenderun - Darüsselam	0	238	238
	Mersin - Sittwe	147	0	147
Total Indian Oceanı Ro-Ro Lines		**147**	**238**	**385**
Other Ro-Ro Lines		**2.186**	**1,078**	**3,264**
Total		**357.592**	**361,996**	**719,588**

Source: Ministry of Transport and Infrastructure, Republic of Türkiye

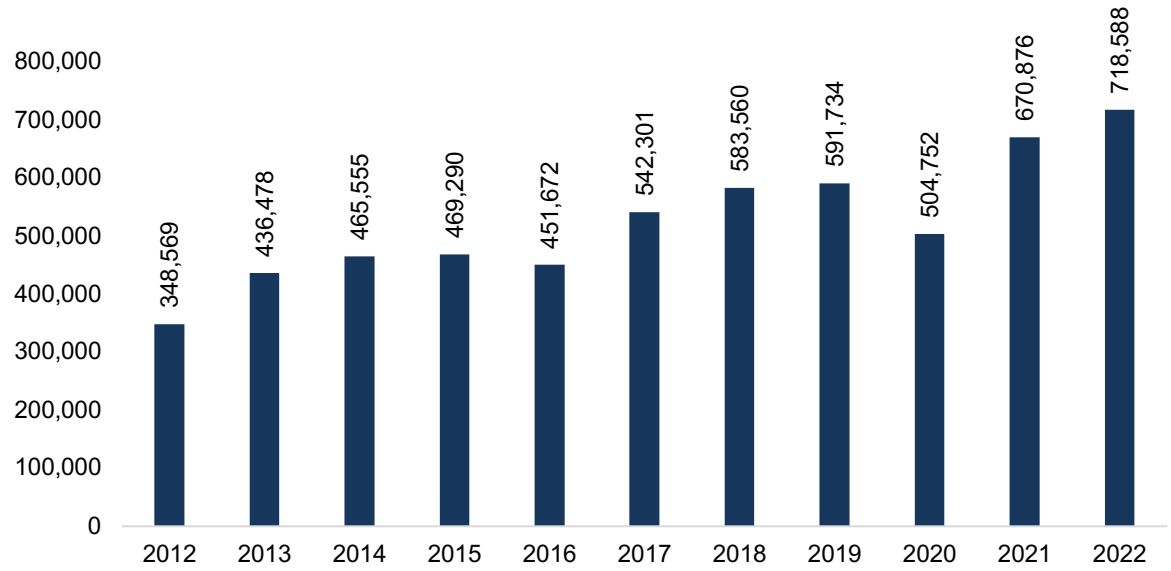
In the 19 European lines 504.088 vehicles have been transported in 2022. (70%)
In the 9 Black Sea lines 108.307 vehicles have been transported in 2022. (15%)
In the 7 Mediterranean lines 103.544 vehicles have been transported in 2022. (14%)
In the 3 Other lines 3.649 vehicles have been transported in 2022. (1%)

Graph 26. Ro-Ro Lines Transported Vehicles (2022)



Source: Ministry of Transport and Infrastructure, Republic of Türkiye

Graph 27. Ro-Ro Lines Transported Vehicles (2012-2022)



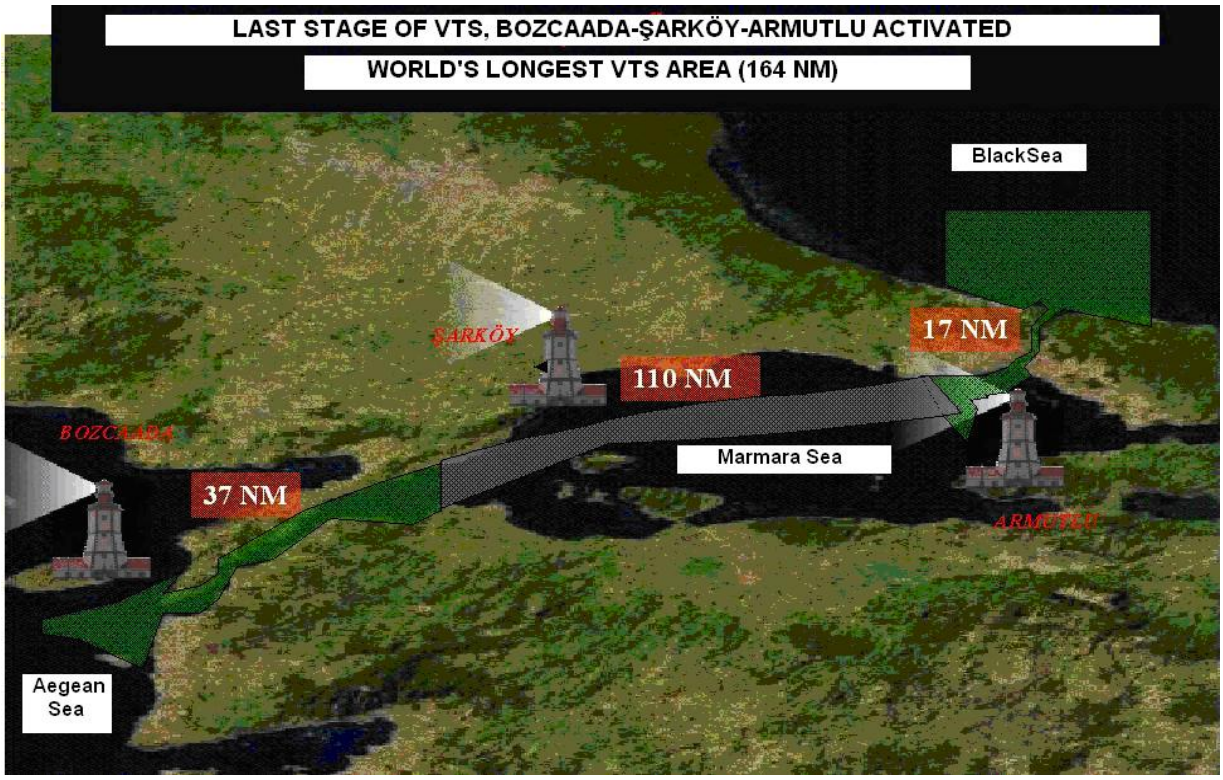
Source: Ministry of Transport and Infrastructure, Republic of Türkiye

CHAPTER III

THE TURKISH STRAITS AND MARITIME TRAFFIC SYSTEMS

3. THE TURKISH STRAITS AND MARITIME TRAFFIC SYSTEMS

3.1. The Turkish Straits



The region consisting of the Turkish Straits, called Istanbul and Çanakkale Straits and the Sea of Marmara, is one of the regions that has the highest concentration of maritime traffic in the World.

Turkish Straits consist of the İstanbul Strait 17 nm in length, 110 nm the vessels navigating area in Marmara Sea and Çanakkale Strait in length 37 nm. Total length of the Turkish Straits is 164 nm and it is opened to international maritime vessel traffic under the Turkish governmental control.

This 164 nm long seaway, starting from the north entrance of İstanbul Strait and ending at the south exit of Çanakkale Strait, is a region that should be given high importance both from geomorphological and hydrographical aspects, especially for having 12 sharp turning points with 45º in front of İstanbul Strait-Kandilli and 80º in front of Yeniköy and with complex currents which reach to a relative speed of 7- 8 knots.

The Strait of İstanbul is unique as it runs through the city of İstanbul with more than 15 million inhabitants. The shoreline of İstanbul is densely populated. Vessels approach frequently as close as 50 meters to these inhabited areas. Excluding the vessel traffic, the local traffic such as leisure crafts and fishing vessels, daily domestic vessel movement alone in the Strait of İstanbul is more than 2500. More than 2.5 million people are daily in a movement at sea crossing from one side to another in İstanbul. İstanbul is a city with 3000 years of history. It is declared as a “world heritage city” by UNESCO.

Besides their geopolitical and strategical importance, the Turkish Straits are highly congested with international maritime traffic due to being the only waterway between the Black Sea and The Mediterranean without any alternative.

The number of vessels that passed through the Turkish Straits between the years 2006-2022 are shown in Table below.

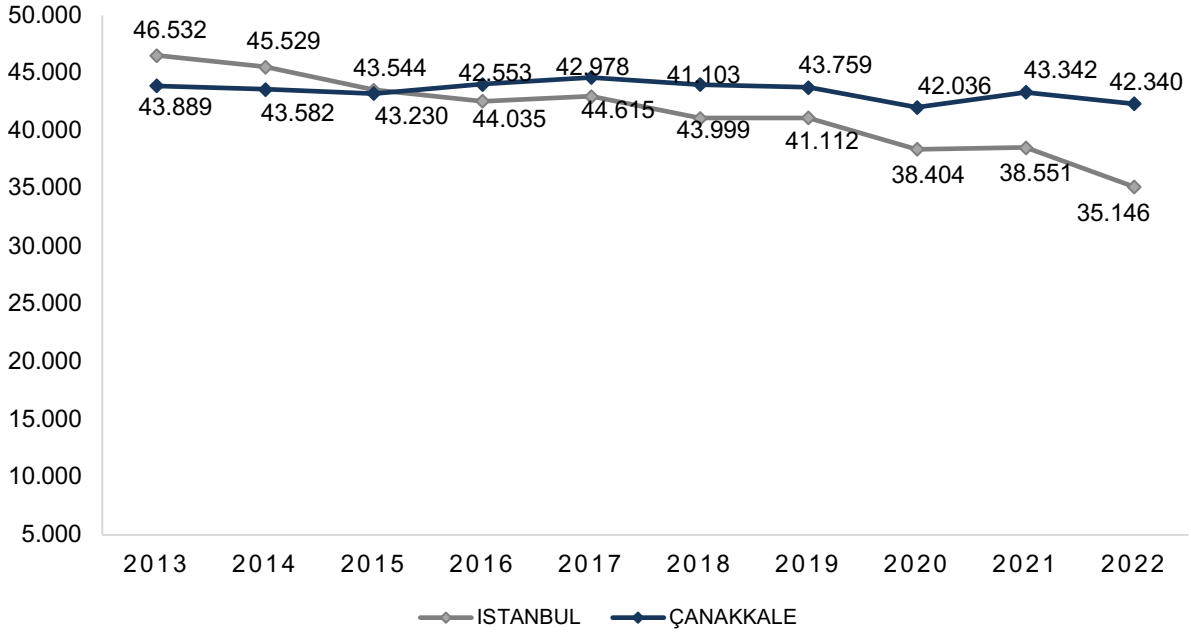
Table 39. Ships Passing Through the Turkish Straits (2006-2022)

Years	Istanbul			Canakkale		
	Number Of Vessels	GT	Number Of Vessels Change	Number Of Vessels	GT	Number Of Vessels Change
2006	54,880	475,796,880	-	48,915	595,826,240	-
2007	56,606	484,867,696	3.1%	49,913	611,885,819	2.0%
2008	54,396	515,639,614	-3.9%	48,978	657,396,892	-1.9%
2009	51,422	514,656,446	-5.5%	49,453	667,412,661	1.0%
2010	50,871	505,615,881	-1.1%	46,686	672,843,533	-5.6%
2011	49,798	523,543,509	-2.1%	45,379	705,412,518	-2.8%
2012	48,329	550,526,579	-2.9%	44,613	735,728,537	-1.7%
2013	46,532	551,771,780	-3.7%	43,889	745,567,671	-1.6%
2014	45,529	582,468,334	-2.2%	43,582	761,631,756	-0.7%
2015	43,544	565,216,784	-4.4%	43,230	777,989,382	-0.8%
2016	42,553	565,282,287	-2.3%	44,035	772,922,682	1.9%
2017	42,978	599,324,748	1.0%	44,615	823,460,636	1.3%
2018	41,103	613,088,166	-4.4%	43,999	849,140,218	-1.4%
2019	41,112	638,892,062	0.0%	43,759	872,312,222	-0.5%
2020	38,404	619,758,776	-6.6%	42,036	858,844,972	-3.9%
2021	38,551	631,920,375	0.4%	43,342	898,473,519	3.1%
2022	35,146	541,444,690	-8.8%	42,340	871,621,677	-2.3%

Source: Ministry of Transport and Infrastructure, Republic of Türkiye and İMEAK Chamber of Shipping Calculations

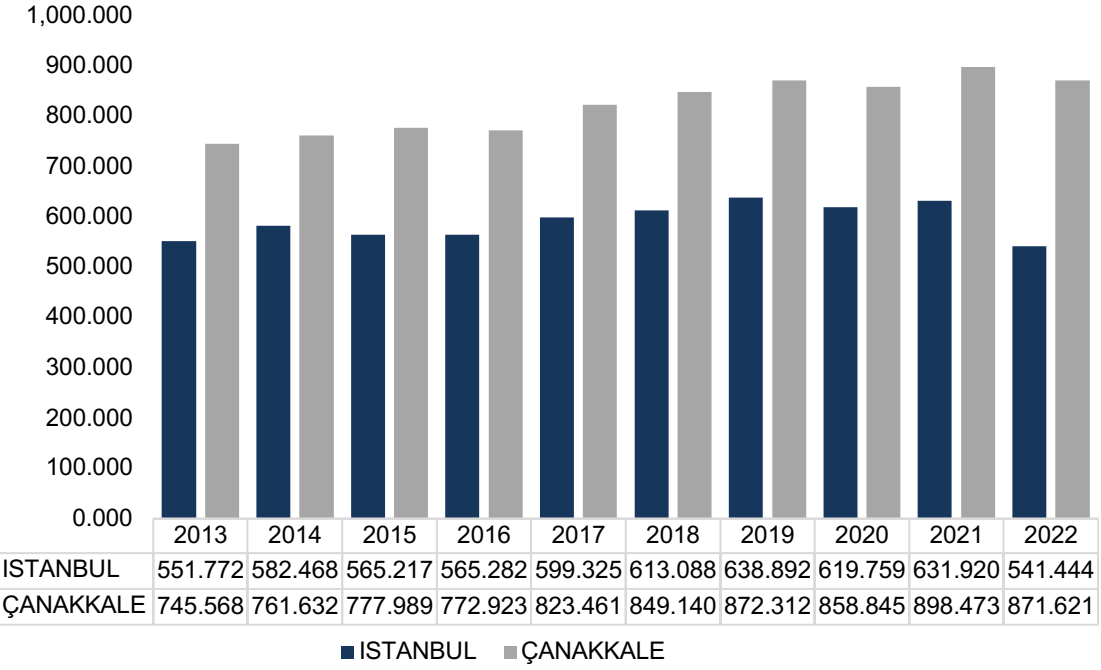
In the year 2022, 35,146 ships in total have passed through the İstanbul Strait with a monthly average of 2,929 ships; 42,340 ships in total have passed through the Çanakkale Strait with a monthly average of 3,528 ships.

Graph 28. Number of Ships Passing Through the Turkish Straits (2013-2022)



Source: Ministry of Transport and Infrastructure, Republic of Türkiye

Graph 29. 2013-2022 Ships Passing Through the Turkish Straits GT (1,000 GT)



	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
ISTANBUL	551.772	582.468	565.217	565.282	599.325	613.088	638.892	619.759	631.920	541.444
ÇANAKKALE	745.568	761.632	777.989	772.923	823.461	849.140	872.312	858.845	898.473	871.621

Source: Ministry of Transport and Infrastructure, Republic of Türkiye

A significant part of the ships passing through the Turkish Straits carries toxic, hazardous, and explosive substances (such as crude oil, ammonia, liquefied gas, radioactive substances, hazardous wastes). Especially in the 1990s, parallel to the increase in the oil flow to the ports in the Black Sea, the number of ships carrying dangerous goods and oil from the Turkish Straits also increased.

Table 40. Dangerous Passing Through the Turkish Straits

Years	Istanbul		Çanakkale	
	The Number of Tankers Carrying Hazardous Materials	The Amount of Hazardous Materials (Metric Tons)	The Number of Tankers Carrying Hazardous Materials	The Amount of Hazardous Materials (Metric Tons)
2006	10,153	143,452,500	9,567	152,726,000
2007	10,054	143,939,500	9,271	149,320,000
2008	9,303	140,357,500	8,758	149,052,000
2009	9,299	144,660,000	9,567	152,105,500
2010	9,274	146,750,500	9,252	156,929,000
2011	9,103	138,496,500	8,818	154,606,000
2012	9,028	131,123,000	8,998	151,040,000
2013	9,006	134,444,000	9,299	149,091,000
2014	8,745	133,961,000	9,250	152,286,000
2015	8,633	135,952,000	9,524	155,531,000
2016	8,703	136,100,000	9,481	156,203,000
2017	8,832	146,943,000	9,478	166,729,000
2018	8,587	147,375,459	9,247	164,583,997
2019	8,957	159,499,000	9,843	171,685,000
2020	8,435	139,244,513	9,372	157,193,034
2021	8,248	147,222,005	9,208	167,993,772
2022	8,653	149,904,132	9,904	166,774,727

Source: Ministry of Transport and Infrastructure, Republic of Türkiye

The statistics of ships passing through Istanbul and Çanakkale Straits, according to length, piloting and on country basis are shown in the following tables.

Table 41. The Monthly Statistics of Vessels Passed Istanbul Strait According to Their Length and Pilot Request

Months	Number Of Vessels	Total Gross Tonnage	With Pilot	Sp1 Given	Non Call In Vessels	LOA Longer Than 200 M	Lower Than 500 GT	Total Tankers			Towaged
								TTA	LPG/LNG	TCH	
January	3,094	53,873,357	2,098	3,081	2,036	457	28	438	47	270	7
February	3,094	54,325,814	2,049	3,080	2,100	462	20	428	42	252	6
March	2,550	40,467,687	1,673	2,548	1,599	310	32	412	29	201	6
April	2,624	37,750,190	1,589	2,622	1,592	274	24	377	32	223	7
May	2,858	41,289,326	1,778	2,854	1,705	306	32	486	35	218	6
June	2,815	40,050,237	1,792	2,813	1,656	288	28	482	32	188	10
July	2,844	42,872,809	1,840	2,838	1,699	322	36	503	29	206	11
August	2,888	43,646,730	1,894	2,886	1,678	320	39	467	27	216	9
September	3,070	44,922,607	2,193	3,069	1,523	308	32	445	36	275	9
October	3,137	46,958,826	2,215	3,135	1,632	329	35	451	38	243	8
November	3,086	46,791,501	2,146	3,075	1,703	344	31	435	32	251	7
December	3,086	48,495,606	2,113	3,082	1,747	359	51	523	45	239	10
Total	**35,146**	**541,444,690**	**23,380**	**35,083**	**20,670**	**4,079**	**388**	**5,447**	**424**	**2,782**	**96**

Source: Ministry of Transport and Infrastructure, Republic of Türkiye

Table 42. The Monthly Statistics of Vessels Passed Çanakkale Strait According to Their Length and Pilot Request

Months	Number Of Vessels	Total Gross Tonnage	With Pilot	Sp1 Given	Non Call In Vessels	LOA Longer Than 200 M	Lower Than 500 GT	Total Tankers			Towaged
								TTA	LPG/LNG	TCH	
January	3,609	78,731,200	1,999	3,586	2,061	683	65	457	63	308	14
February	3,653	75,409,507	1,955	3,632	2,103	640	60	440	64	276	18
March	3,289	68,819,727	1,898	3,278	1,579	564	48	496	48	256	9
April	3,355	66,163,591	1,792	3,338	1,626	529	69	429	39	292	11
May	3,556	70,644,285	1,892	3,531	1,672	578	76	532	51	328	9
June	3,491	70,395,831	1,947	3,467	1,688	569	59	482	48	282	12
July	3,421	71,606,814	1,899	3,403	1,669	600	61	521	33	272	5
August	3,539	71,938,456	2,020	3,522	1,653	597	49	483	32	276	6
September	3,497	72,187,122	2,101	3,479	1,497	600	65	486	45	311	9
October	3,655	76,556,306	2,169	3,635	1,618	627	64	492	58	253	9
November	3,642	75,021,468	2,124	3,630	1,692	617	43	490	65	317	5
December	3,633	74,147,370	2,173	3,623	1,726	619	63	566	70	243	13
Total	**42,340**	**871,621,677**	**23,969**	**42,124**	**20,584**	**7,223**	**722**	**5,874**	**616**	**3,414**	**120**

Source: Ministry of Transport and Infrastructure, Republic of Türkiye

Table 43. (2018-2022) Statistics of Vessels Passed Istanbul Strait According to Their Ship Type

Ship Types	2018	2019	2020	2021	2022
General Cargo Ship	19,269	18,637	16,864	16,891	15,371
Bulk Carrier	8,501	8,811	8,592	8,684	7,076
Other Tanker, TTA	6,014	5,934	5,252	5,085	5,447
Container Ship	2,561	2,642	2,633	2,735	2,426
Chemical Tanker, TCH	1,950	2,462	2,653	2,701	2,782
Livestock Carrier	508	530	555	566	491
Liquefied Petroleum Gas LPG	623	561	530	462	424
Roll on Roll of Vessel	245	266	222	268	274
Passenger Ship	367	250	74	217	85
Tug	384	270	175	214	234
Naval	176	178	205	190	30
Refrigerated Cargo Carrier	34	59	52	48	15
Cement Carrier	12	9	18	46	38
Vehicle Carrier	88	113	87	18	67
Barge / Barge Carrier	3	9	15	13	34
Ferry	1	2	1	2	1
Other	367	379	476	411	351

Source: Ministry of Transport and Infrastructure, Republic of Türkiye

Table 44. 2018-2022 Statistics of Vessels Passed Çanakkale Strait According to Their Ship Type

Ship Types	2018	2019	2020	2021	2022
General Cargo Ship	15,764	14,771	14,197	14,713	13,880
Bulk Carrier	8,916	9,204	9,170	9,349	8,049
Container Ship	5,123	5,238	5,219	5,502	5,767
Other Tanker, TTA	6,181	6,178	5,644	5,196	5,874
Chemical Tanker, TCH	2,368	2,996	3,057	3,385	3,414
Roll on Roll of Vessel	2,243	1,957	1,649	1,974	2,140
Livestock Carrier	601	592	593	607	521
Liquefied Petroleum Gas Tanker, LPG	595	539	542	498	477
Vehicle Carrier	670	644	498	448	443
Tug	398	365	306	341	337
Naval	217	216	211	206	34
Barge / Barge Carrier	57	75	109	179	60
Liquefied Natural Gas Tanker, LNG	103	130	129	129	139
Refrigerated Cargo Carrier	67	83	76	71	32
Cement Carrier	14	10	17	45	47
Passenger Ship	55	101	26	43	489
Ferry	30	26	26	29	9
Other	597	634	567	627	628

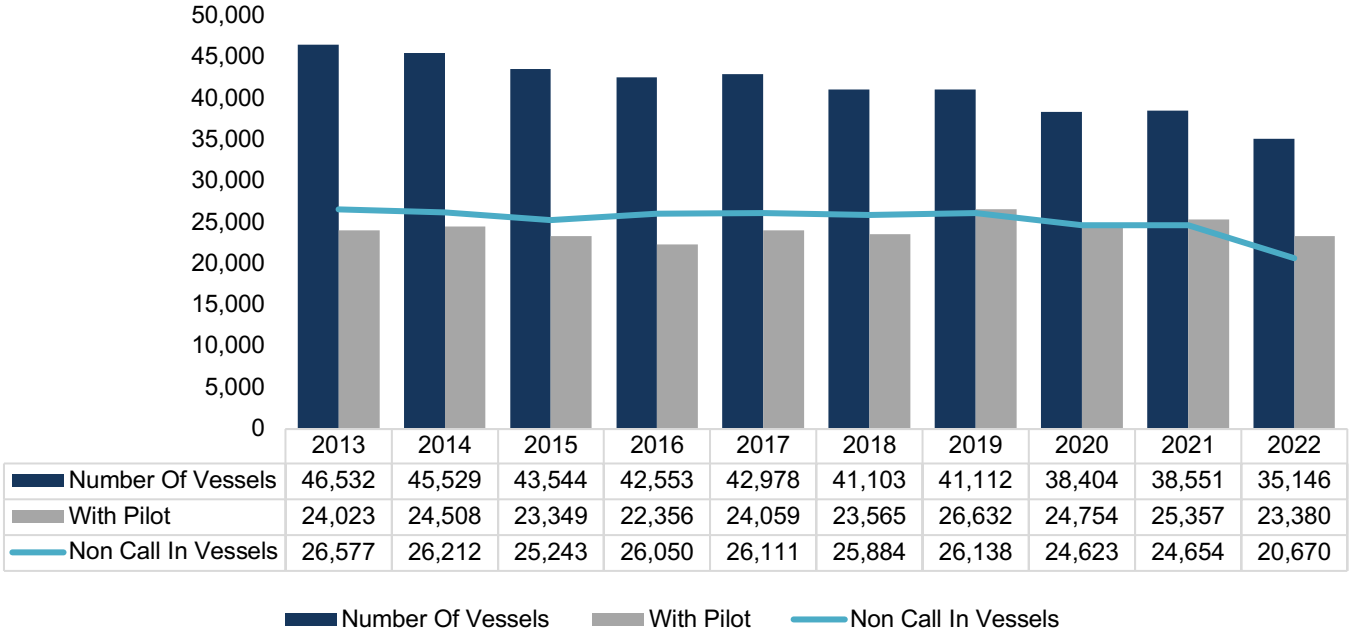
Source: Ministry of Transport and Infrastructure, Republic of Türkiye

Table 45. 2006-2022 Years of Vessels Passed Istanbul Strait According to Their Length and Pilot Request

Years	Number of Vessels	Total Gross Tonnage	With Pilot	Sp1 Given	Non Call In Vessels	LOA Longer Than 200 M	Lower Than 500 GT	Total Tankers			Towaged
								TTA	LPG/LNG	TCH	
2006	54,880	475,796,880	26,589	53,324	31,880	3,653	2,176	7,659	814	1,680	111
2007	56,606	484,867,696	26,685	55,132	31,826	3,653	2,138	7,204	800	2,050	105
2008	54,396	515,639,614	27,001	53,232	31,762	3,911	1,800	6,564	764	1,975	119
2009	51,422	514,656,446	24,977	50,712	32,297	3,871	1,128	6,557	866	1,876	122
2010	50,871	505,615,881	26,035	50,020	28,668	3,623	1,377	6,464	1,099	1,711	115
2011	49,798	523,543,509	26,011	49,179	27,938	3,800	1,046	6,216	1,227	1,660	93
2012	48,329	550,526,579	24,812	47,638	27,345	3,866	1,064	5,913	1,336	1,779	98
2013	46,532	551,771,780	24,023	45,616	26,577	3,801	1,192	5,685	1,741	1,580	87
2014	45,529	582,468,334	24,508	44,928	26,212	4,295	928	5,587	1,540	1,618	90
2015	43,544	565,216,784	23,349	43,039	25,243	3,930	879	5,825	1,232	1,576	71
2016	42,553	565,282,287	22,356	42,132	26,050	3,873	522	6,033	989	1,681	73
2017	42,978	599,324,748	24,059	42,700	26,111	4,005	436	6,212	742	1,878	88
2018	41,103	613,088,166	23,565	40,844	25,884	4,106	508	6,014	623	1,950	116
2019	41,112	638,892,062	26,632	40,870	26,138	4,400	333	5,934	561	2,462	89
2020	38,404	619,758,776	24,754	38,175	24,623	4,952	374	5,252	530	2,653	67
2021	38,551	631,920,375	25,357	38,340	24,654	5,306	374	5,085	462	2,701	75
2022	35,146	541,444,690	23,380	35,083	20,670	4,079	388	5,447	424	2,782	96

Source: Ministry of Transport and Infrastructure, Republic of Türkiye

Graph 30. The Statistics Summary of Vessels Passed Istanbul Strait Number of Vessel, with Pilot and Non Call in Vessel



	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
Number Of Vessels	46,532	45,529	43,544	42,553	42,978	41,103	41,112	38,404	38,551	35,146
With Pilot	24,023	24,508	23,349	22,356	24,059	23,565	26,632	24,754	25,357	23,380
Non Call In Vessels	26,577	26,212	25,243	26,050	26,111	25,884	26,138	24,623	24,654	20,670

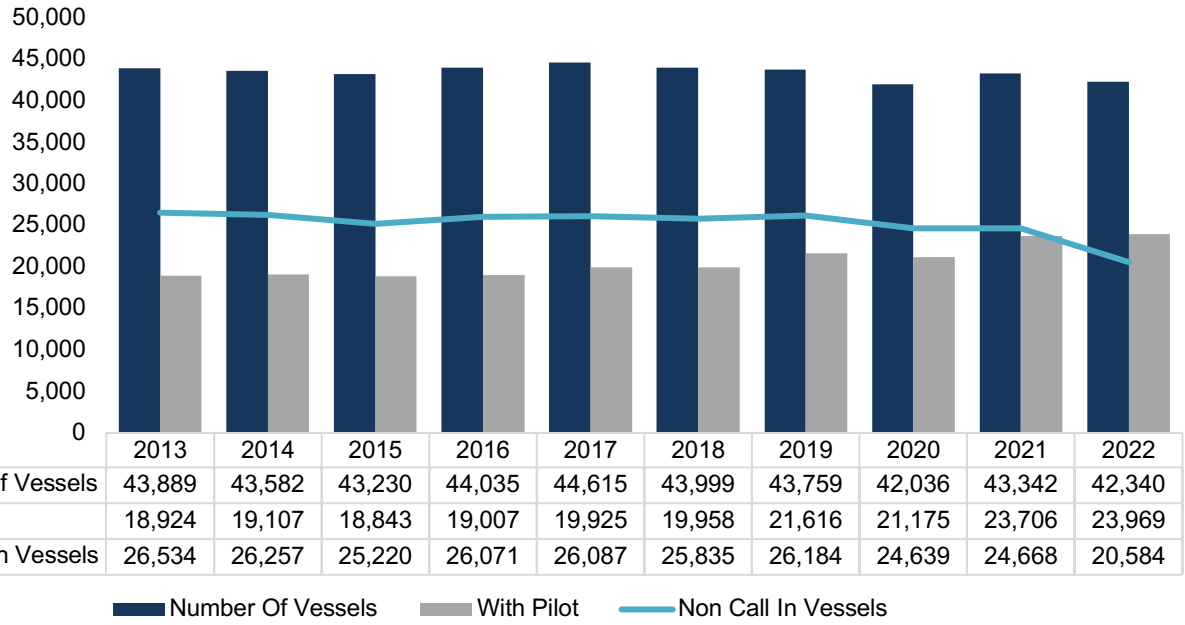
Source: Ministry of Transport and Infrastructure, Republic of Türkiye

Table 46. 2006-2020 Years of Vessels Passed Çanakkale Strait According to Their Length and Pilot Request

YEARS	Number of Vessels	Total Gross Tonnage	With Pilot	Sp1 Given	Non Call In Vessels	LOA Longer Than 200 M	Lower Than 500 GT	Total Tankers			Towaged
								TTA	LPG/LNG	TCH	
2006	48,915	595,826,240	16,871	48,264	32,061	4,845	1,404	7,204	798	1,565	131
2007	49,913	611,885,819	16,885	48,802	31,981	4,945	1,873	6,527	754	1,990	138
2008	48,978	657,396,892	18,334	48,565	31,981	5,223	844	5,990	777	1,991	162
2009	49,453	667,412,661	18,588	49,210	32,559	5,176	615	6,293	842	2,432	146
2010	46,686	672,843,533	18,678	46,469	28,768	5,098	598	6,017	902	2,333	138
2011	45,379	705,412,518	18,920	45,196	27,983	5,494	572	5,661	974	2,183	159
2012	44,613	735,728,537	18,775	44,416	27,418	5,919	519	5,656	1,038	2,304	134
2013	43,889	745,567,671	18,924	43,579	26,534	5,824	448	5,822	1,380	2,097	123
2014	43,582	761,631,756	19,107	43,238	26,257	5,902	512	5,875	1,206	2,169	116
2015	43,230	777,989,382	18,843	42,755	25,220	5,842	581	6,009	1,036	2,479	122
2016	44,035	772,922,682	19,007	43,543	26,071	5,665	661	6,041	881	2,559	139
2017	44,615	823,460,636	19,925	43,888	26,087	6,197	755	6,145	734	2,599	149
2018	43,999	849,140,218	19,958	43,513	25,835	6,612	732	6,181	698	2,368	156
2019	43,759	872,312,222	21,616	43,321	26,184	7,010	714	6,178	669	2,996	138
2020	42,036	858,844,972	21,175	41,581	24,639	7,430	779	5,644	671	3,057	126
2021	43,342	898,473,519	23,706	42,896	24,668	7,855	820	5,196	627	3,385	131
2022	42,340	871,621,677	23,969	42,124	20,584	7,223	722	5,874	616	3,414	120

Source: Ministry of Transport and Infrastructure, Republic of Türkiye

Graph 31. The Statistics Summary of Vessels Passed Çanakkale Strait Number of Vessel, with Pilot and Non Call in Vessel



	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
Number Of Vessels	43,889	43,582	43,230	44,035	44,615	43,999	43,759	42,036	43,342	42,340
With Pilot	18,924	19,107	18,843	19,007	19,925	19,958	21,616	21,175	23,706	23,969
Non Call In Vessels	26,534	26,257	25,220	26,071	26,087	25,835	26,184	24,639	24,668	20,584

Source: Ministry of Transport and Infrastructure, Republic of Türkiye

3.2. Turkish Straits Reporting System (TUBRAP)

Traffic Separation Scheme

The traffic separation scheme for the Turkish Straits and their approaches, which is prepared as per WGS 84 datum, established in accordance with Rule 10 of Convention on the International Regulations for Preventing Collisions at Sea, 1972 (COLREGs) and adopted by the IMO, has been established within the limits below.

On the North, the line connecting following points:
a) 41° 16'.330 N, 028° 54'.974 E
b) 41° 20'.944 N, 028° 54'.974 E
c) 41° 20'.944 N, 029° 15'.974 E
ç) 41° 13'.830' N, 029° 15'.974 E

On the South, the line connecting following points:
a) 40° 05'.021 N, 26° 11'.394 E
b) 40° 01'.940 N, 25° 54'.970 E
c) 39° 49'.940 N, 25° 52'.970 E
ç) 39° 43'.940 N, 25° 54'.970 E
d) 39° 43'.940 N, 26° 09'.129 E

Sailing Plan - 1 (SP-1) Report

Masters, owners or agents of the vessels carrying dangerous cargo or the vessels of 500 GT and more should submit a written SP-1 Report (Annex 1) and Checklist completed by Master (Annex 8) to the relevant TSVTS Centers at least 24 hours prior to entry into the Turkish Straits. Masters, owners or agents of the vessels with LOA between 200-300 meters and/or vessels with a draft over 15 meters should submit a written SP-1 Report (Annex 1) and Checklist

completed by Master (Annex 8) to the relevant TSVTS Centers at least 48 hours prior to entry into Turkish Straits.

Owners or operators of vessels with LOA of 300 meters or more, vessels that are propelled by nuclear power and vessels carrying nuclear cargo or waste and hazardous and noxious goods or waste shall provide information regarding the vessel's characteristics and cargo to the Ministry/Administration during the planning stage of the voyage. Based on thisinformation about the vessels, the TSVTS Center and the Ministry / Administration, if necessary, taking into account the all characteristics of vessels including their dimensions and the maneuverability, the morphological and physical structure of the Turkish Straits, seasonal conditions, maritime traffic with the safety of life, property, sea and environment, shall notify the conditions and recommendations, if any, to the owner, operator or master of the vessel concerned, in order to ensure a safe passage through Turkish Straits. Those vessels which meet the necessary conditions for passage, shall submit the SP-1 Report and the Checklist (Annex-8) filled by the ship's master at least 72 hours in advance.

Vessels carrying dangerous cargo and vessels of 500 GT and more which will depart from ports in the Sea of Marmara, shall submit the SP-1 report at least 6 hours before departure.

In the event that there is a delay exceeding 2 hours in the time of entry of the vessels into Turkish Straits, which was declared in their SP-1 reports, this will be notified to the TSVTS Center by the relevant agency. The SP-1 report is very important for effective traffic management, and vessels that do not send SP-1 report on time or notify in case of possible delays may be excluded from the daily traffic planning, as they can lead to congestion of marine traffic, delays and waiting.

Sailing Plan - 2 (SP-2) Report

The ship masters, who gave the SP-1 Report and declared that their vessel is technically in conformity with Article 6 of Regulation, and the masters of warships and other non-commercial state-owned ships, shall submit SP-2 report (Annex-2) to the TSVTS via designated VHF channel, 2 hours before or 20 miles before entering the Turkish Straits, whichever occurs first.

After having submitted the SP 2 Report, vessels shall act by taking into account information provided by the relevant TSVTS and shall record in the ship’s log that they have submitted SP 2 Report and all information received regarding strait traffic.

The SP 2 report shall be submitted to the concerned sector of the relevant TSVTS area where the ship will enter into.

Position Report

Vessels of 20 meters and more in length which will enter the Turkish Straits shall submit the “Position Report" (Annex-3) to the TSVTS sector on the entrance side via VHF, containing information identifying themselves to the relevant VTS sector, at a distance of 5 nautical miles before entrances of the Strait.

Call Point Report

Vessels of 20 meters or more in a length passing through the Turkish Straits shall submit the “Call Point Report" (Annex-4) to the relevant TSVTS sector via VHF at designated locations. These positions are entry and exit points to the TSVTS system. In addition, the vessels shall submit this report to the sector they enter in through the VHF channel whenever they change the sector.

Marmara Report (MARRAP)

Active participant vessels that navigate between the ports in the Sea of Marmara using the TSVTS area or depart from a port in the Sea of Marmara and pass through the Strait, shall submit the Marmara Report (MARRAP) (Annex-5) to the sector where they enter the TSVTS area via VHF.

CHAPTER IV

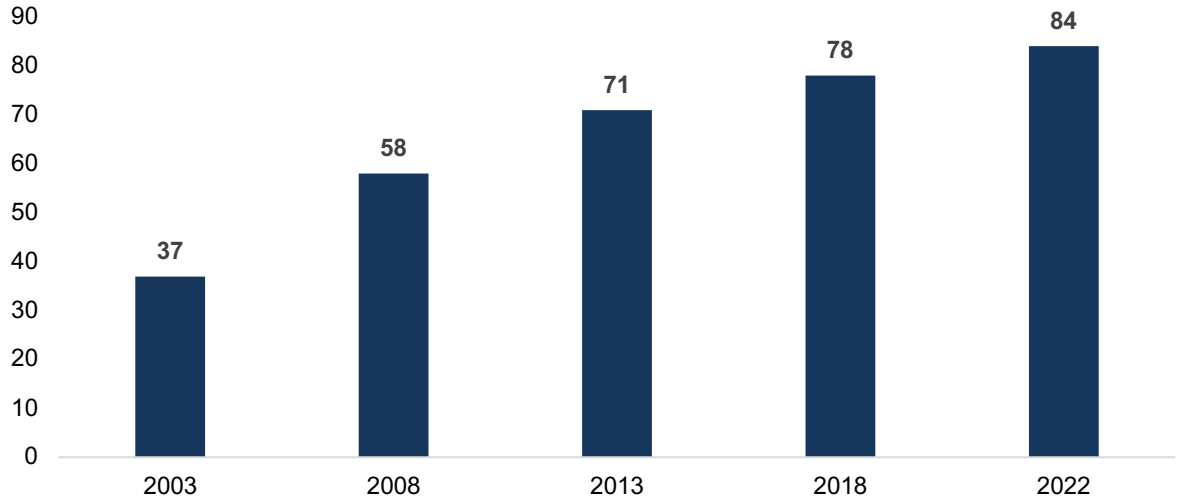
SHIPBUILDING INDUSTRY

4. SHIPBUILDING INDUSTRY

4.1. General Outlook of the Turkish Shipbuilding Industry

The shipyards, according to the facility definition in the local regulations, the under operation raised up to 84 as of March 2022 while it was only 37 in 2002. The quantity of shipyards under construction are 9 and 13 areas that are defined as shipyard investment areas of the same date mentioned above. The Covid-19 pandemic, within the the Global Economic Crisis, affected the Shipbuilding Sector adversely as well as many other sectors. The decrease in the order books caused a downfall both in employment and new investments, so most of the shipyards cancelled or postponed their modernization projects.

Graph 32. 2002 / 2022 Shipyards Under Operation



Source: Ministry of Transport and Infrastrucure 03/2023

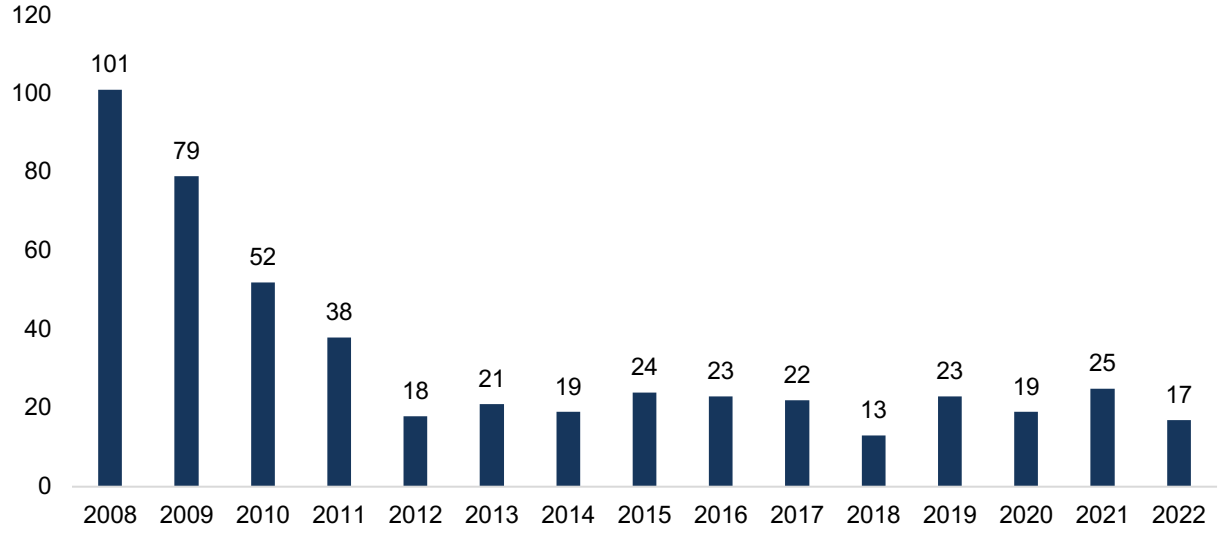
Shipbuilding industry is a branch of heavy industry which provides;

- Progress in sub-industry
- Increase in employment and the population of the neighbourhood
- Rising the standards of quality of sub-industry
- Increase of qualified productive power
- Progress in growth and strength of regional trade
- Rising the living circumstances and the cultural level of labour
- Employment in ratio 1 to 7 including sub-industry.

In 2022, 17 ships DWT of 55.798 tons have been delivered.

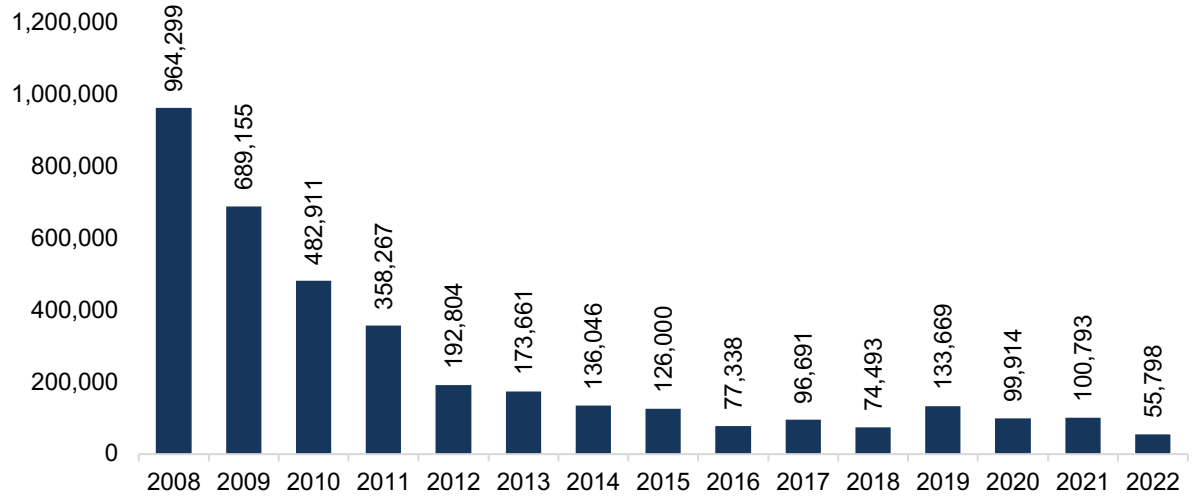
Some of the operative shipyards in Türkiye continue the modernization and extension operations but on the other hand, due to the global economic crisis, some of them suspend or cancel their modernization or extension projects because of the sanctions applied by the banks on the shipyards.

Graph 33. Number of Ships Delivered Between 2008-2022



Source: Clarkson Research Services 03/2023

Graph 34. DWT of Ships Delivered Between 2008-2022



Source: Clarkson Research Services 01/2022

The short-term shipbuilding market outlook appears positive, with stronger newbuilding interest having emerged and many yards now holding significant forward orderbook cover. However, some impacts could be seen from stronger newbuild pricing and ongoing uncertainty around fuelling and technology choices. Nevertheless, looking ahead, shipping's Fuelling Transition is likely to drive significant fleet renewal and ordering volumes into the longer-term. The EU Green Agreement has increased the orders for electric and hybrid ships to our shipyards, and our shipyards have also achieved significant success in the construction of special-purpose ships. Projects such as the first floating powership, electric tugboat, electric-hybrid cruise ships, electric-hybrid ferries, fishing vessels are among the achievements of our shipyards.

According to the records of the Ship, Yacht and Services Exporters' Association, there are 30 environmentally friendly ships to be delivered in the two-year period between 2022 and 2023.

Of these 30 eco-friendly vessels, 9 are ferries, 8 are fishing vessels, 5 are tugboats, 4 are live fish carriers, 3 are cruise ships and 1 is ropax.

The developments in information technologies and the new era called Industry 4.0 have also shown their effect in the sector. Research continues on "autonomous ships", which is at the forefront of the world's agenda today, and studies are carried out on unmanned naval vehicles for defense purposes.

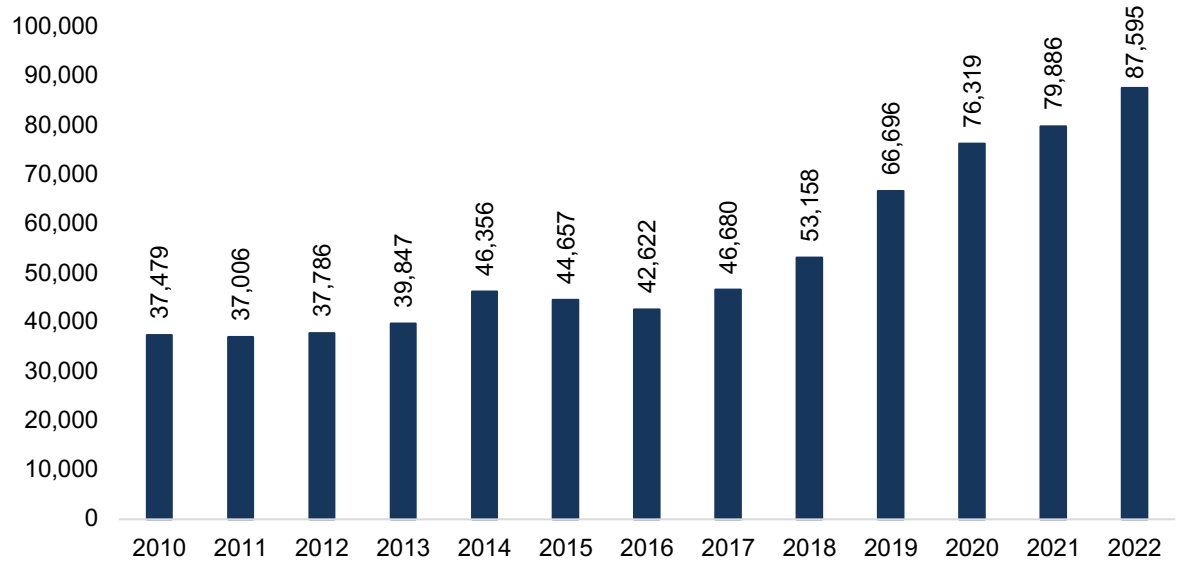
During the Covid-19 pandemic in 2020, it is evaluated that a total of 388 ship orders of 23.0 million DWT (1,000 GT and above) were taken in the first eight months and a 49% decrease was observed in the DWT scale compared to the previous year in the world. Deliveries were also affected, particularly in the first half of the year, due to travel disruptions, equipment supply problems, shipyard closures and financial stress on shipbuilders.

It has been reported that 827 ships of 59.7 million DWT (1000 GT and above) were delivered in the January-August 2020 period, showing a 13% decline compared to the same period of the previous year, but still close to 2018 levels.

According to the report which was published by the General Directorate of Shipyards and Coastal Structures, the figures for the first quarter of 2020 in our country;

- An average of 33% loss of workforce is experienced,
- 85% of the design / production re-scheduling obligation has arisen,
- The activity intensity of shipyards has decreased by 54% on average,
- Shipyards' contracts for March have mainly decreased by more than 30%,
- It is determined that our shipyards are experiencing supply and liquidity problems.

Graph 35. Employee Numbers in Turkish Shipyards by 2022

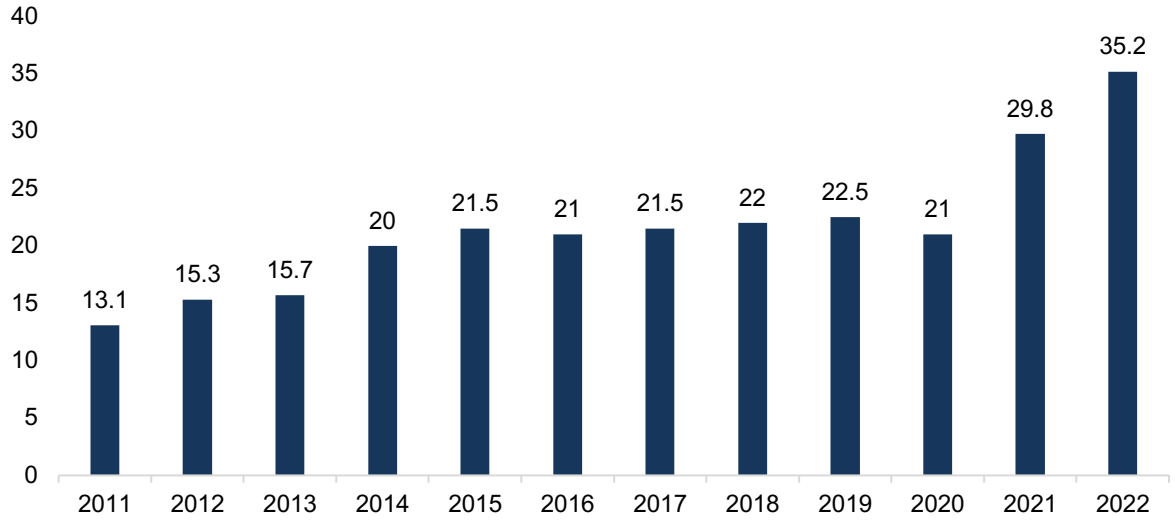


Source: Ministry of Transport and Infrastrucure 03/2023

Most of the ships constructed in Turkish shipyards are built for export. Especially between 2002-2009, almost the total amount of these ships were exported to the EU member countries.

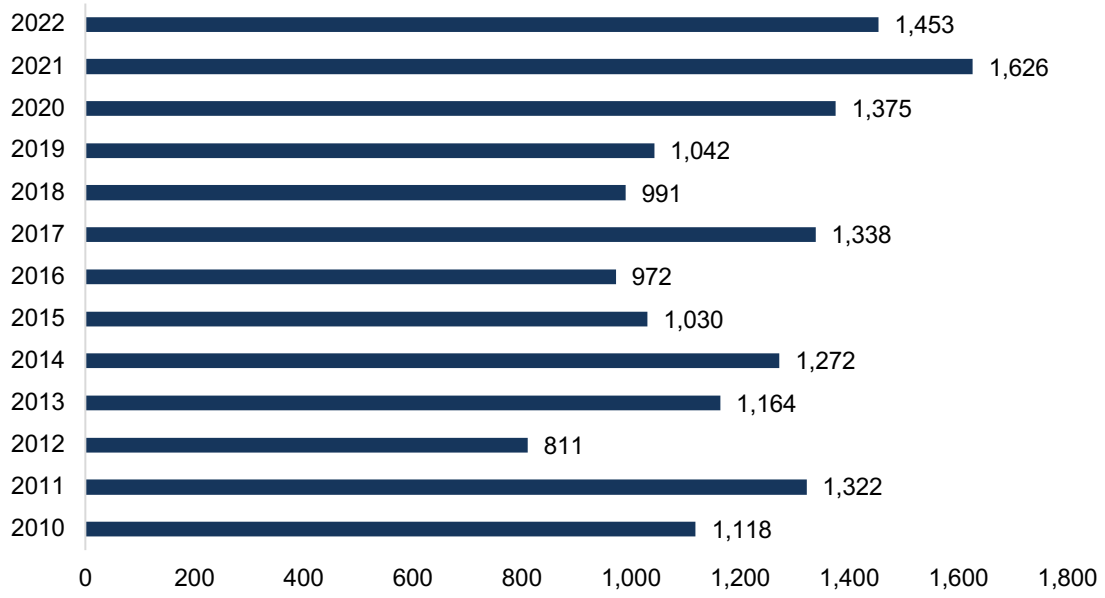
By the end of 2012, orders in our yards were decreased to 0.5 million DWT. Due to the lack of new orders, the shipyards are now mostly concerned, with repair and maintenance facilities. In 2013, in Turkish shipyards 15,755,206 DWT of repair and maintenance had been done. As of 2014, it was approximate 20,000,000 DWT, in 2020 21,000,000 DWT, in 2021 29,800,000 DWT. In 2022, itraised up to 35,200,000 DWT.

Graph 36. Repair and Maintenance Facilities According to Years 2011-2022



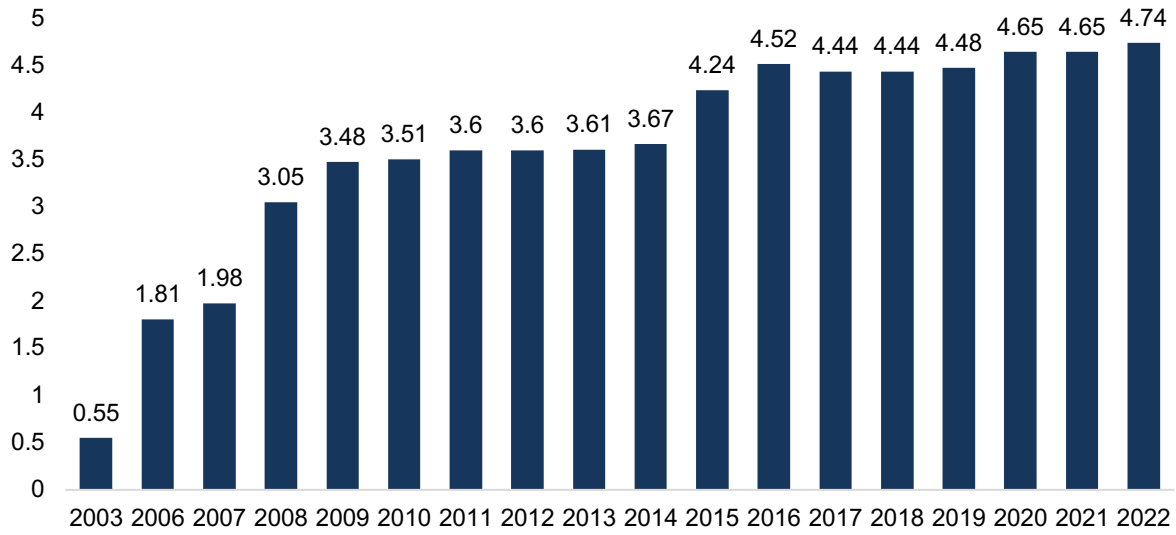
Source: GİSBİR Turkish Shipbuilders Association 03/2023

Graph 37. Export Figures of Turkish Shipbuilding Industry (2010-2022)



Source: Ship and Yacht Exporters Association (e-birlik.net)

Graph 38. Shipyards Project Capacities Between 2003-2022 (Million DWT)



Source: Ministry of Transport and Infrastrucure 03/2023

In 2002, our shipyard's capacity was 550,000 DWT. In 2022 it has reached up to 4.74 million DWT which means a growth more over 8 times than 2002.

As of March 2023, 35 floating docks and 11 dry docks are operative in Türkiye.

Table 47. Floating and Dry Docks in Türkiye

NO	City	Operator	Dimensions
1	İstanbul	İstanbul Şehir Hatları (Haliç)	109x22,5
2	İstanbul	İstanbul Şehir Hatları (Haliç)	81,5x17
3	İstanbul	İstanbul Şehir Hatları (Haliç)	151x16
4	İstanbul	Ursa Gemicilik Bakım Onarım Tersanecilik SAN. TİC. A.Ş.	56x14 m
5	İstanbul	İstanbul Tersane Komutanlığı (Pendik Tersanesi)	300X69
6	İstanbul	Tuzla Gemi Endüstrisi A.Ş.	300x53 m
7	İstanbul	Sedef Gemi İnşaatı A.Ş.	315x50 m
8	İstanbul	Deniz Endüstrisi A.Ş.	210x37 m
9	Yalova	Sefine Denizcilik Tersanecilik Turizm San. ve TİC. A.Ş.	240x40 m
10	Yalova	Beşiktaş Gemi (A-10)	235x40x6,5 m
11	Çanakkale	İçdaş Çelik Enerji Tersane ve Ulaşım San. A.Ş	370x70 m

Source: Ministry of Transport and Infrastrucure 03/2023

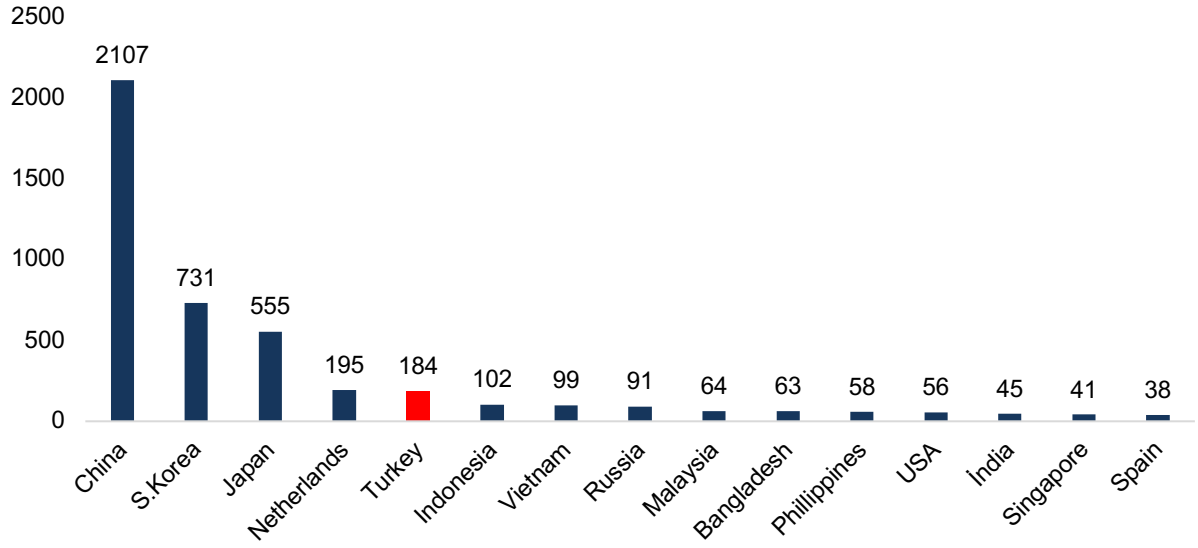
Table 48. Floating and Dry Docks in Türkiye

NO	City	Operator	Dimensions	Lifting Capacity (Tons)
1	İstanbul	DENTAŞ İNŞA ve ONARIM SAN. A.Ş.	128x30 m	5.000
2	İstanbul	GİSAN GEMİ İNŞA SAN. ve TİC. A.Ş.	167x34 m	9.000
3	İstanbul	ÇEKSAN GEMİ İNŞA ÇELİK KONS. SAN. ve TİC. A.Ş.	130x29 m	7.000
4	İstanbul	ART GEMİ İNŞA VE TERSANECİLİK HİZMETLERİ A.Ş. (2. TESİS -Aydıntepe)	190x41,6 m	13.500
5	İstanbul	ART GEMİ VE TERSANECİLİK HİZMETLERİ A.Ş. (1. TESİS - Tuzla Şube)	219,5x45,14 m	20.000
6	İstanbul	KUZEYSTAR SHİPYARD	281x62 m	80.000
7	İstanbul	KUZEYSTAR SHİPYARD	217,5x43 m	45.000
8	İstanbul	İSTANBUL DENİZCİLİK GEMİ İNŞA SAN. ve TİC. A.Ş.	95x28,40 m	7.500
9	İstanbul	SNR GEMİ İNŞA SANAYİ A.Ş.	122,60x38,40 m	7.000
10	İstanbul	DESAN DENİZ İNŞAAT SANAYİ A.Ş.	139.5x35.51 m	8.500
11	İstanbul	DESAN DENİZ İNŞAAT SANAYİ A.Ş.	212,2x51,2	30.000
12	İstanbul	DESAN 5442 NOLU PARSEL	171,6x35,9 m	17.000
13	İstanbul	GEMAK GEMİ İNŞAAT SANAYİ ve TİC. A.Ş.	192x37.38 m	14.000
14	İstanbul	GEMAK GEMİ İNŞAAT SANAYİ ve TİC. A.Ş.	223.97x45 m	28.000
15	İstanbul	HİDRODİNAMİK GEMİ SAN. ve TİC. A.Ş.	115,3x22 m	2.500
16	İstanbul	ÇİNDEMİR MAKİNE GEMİ ONARIM ve TERSANECİLİK A.Ş.	111.74x27.80m	5.000
17	İstanbul	ERKAL ULUSLARARASI NAKLİYAT ve TİCARET A.Ş.	350x79,26 m	65.000
18	İstanbul	TURQUOISE YAT SAN. AŞ	66x27 m	2.500
19	İstanbul	TERSAN TERSANECİLİK ve TAŞIMACILIK SAN. ve TİC. A.Ş.	130x30,5 m	6.500
20	İstanbul	TORLAK DENİZCİLİK SAN. VE TİC. A.Ş.	195X39,6 m	13.000
21	Yalova	BEŞİKTAŞ GEMİ	353,28x66 m	72.000
22	Yalova	BEŞİKTAŞ GEMİ	285x54,6 m	52.500
23	Yalova	DOĞRUYOL TERSANECİLİK SAN. ve TİC. A.Ş.	128x30.2 m	5.500
24	Yalova	HAT-SAN GEMİ İNŞAA BAKIM-ONARIM DEMİR NAK. SAN. ve TİC. A.Ş.	240.4x46 m	25.000
25	Yalova	HAT-SAN GEMİ İNŞAA BAKIM-ONARIM DEMİR NAK. SAN. ve TİC. A.Ş.	227.5x43 m	22.500
26	Yalova	HİCRİ ERCİLİ TERSANECİLİK SAN. VE TİC. A.Ş.	96x30.1 m	4.500
27	Yalova	ÖZATA DENİZCİLİK SAN. Ve TİC. A.Ş.	183.9x33.6 m	10.000
28	Yalova	ÖZATA DENİZCİLİK SAN. Ve TİC. A.Ş.	264x52	28.000
29	Yalova	SANMAR TERSANESİ	83,8x33,5 m	3.500
30	Yalova	SEFİNE DENİZCİLİK TERSANESİ SAN. ve TİC. A.Ş.	282,2x57 m	36.857
31	Yalova	SELTAŞ DENİZCİLİK SAN. Ve TİC. A.Ş.	260x45 m	7.213
32	Yalova	TERSAN TERSANECİLİK SAN ve TİC AŞ	178x35 m	9.000
33	Yalova	TERSAN TERSANECİLİK SAN ve TİC AŞ	309.4x60.9 m	43.717
34	Kocaeli	UZMAR GEMİ İNŞ. SAN. ve TİC. A.Ş.	68x38 m	2.000
35	Kastamonu	İNEBOLU DENIZCILIK SAN. ve TIC. A.Ş.	117,8x29 m	4.500

Source: Ministry of Transport and Infrastrucure 03/2023

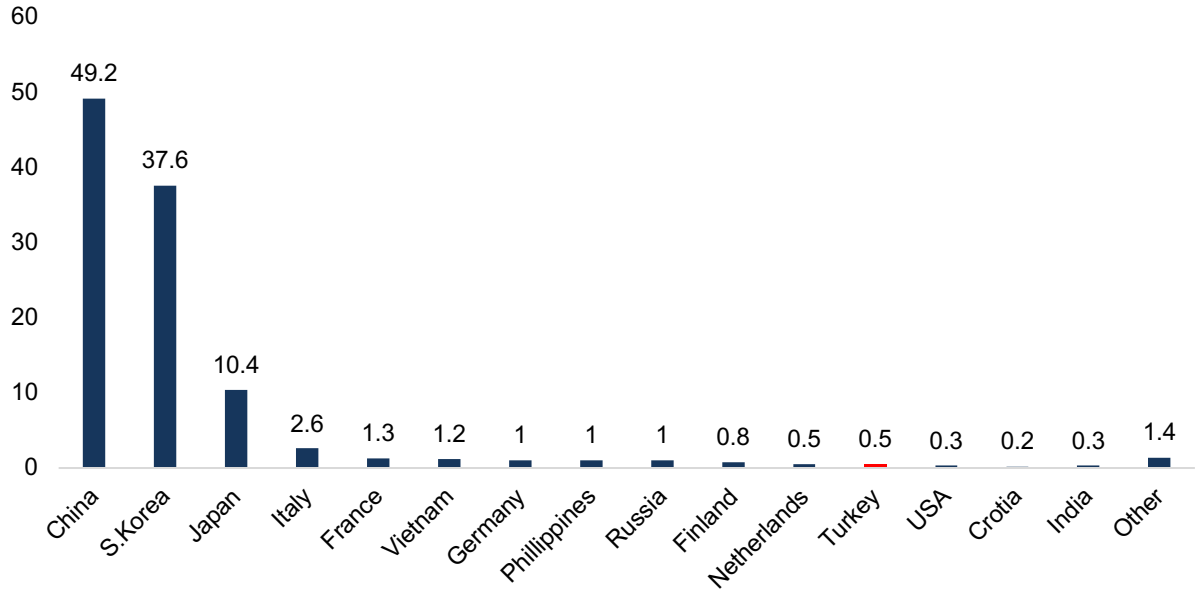
According to quantity, Turkish shipyards are in the 5th place in the world ranking according to quantity.

Graph 39. Orderbook by Builder Country (Quantity)



Source: Clarkson Research Services 03/2023

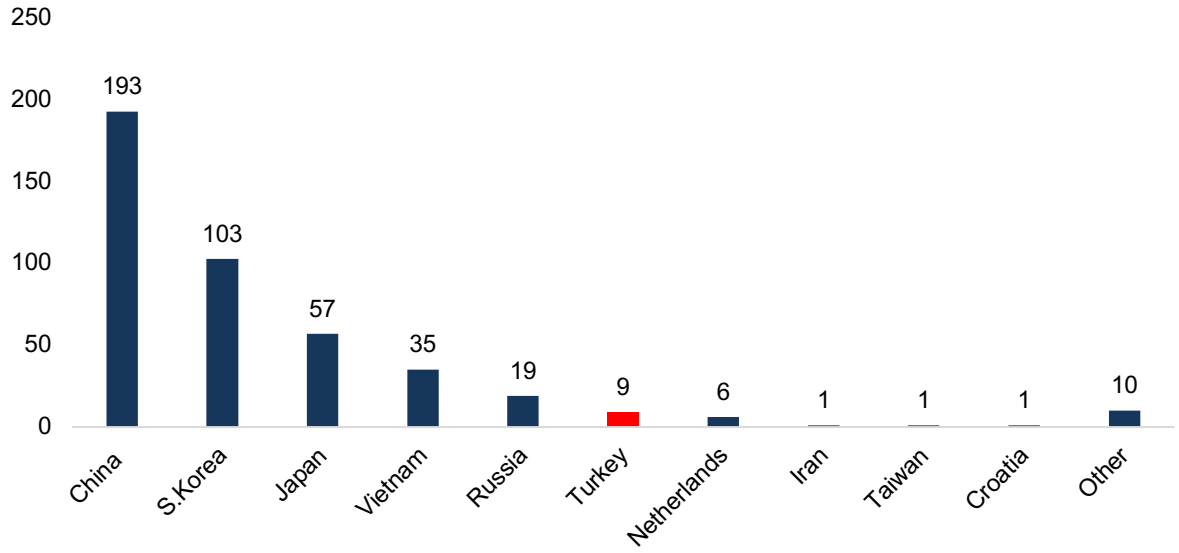
Graph 40. Orderbook by Builder Country (Tonnage- Million CGT)



Kaynak: Clarkson Research Services 03/2023

Our shipyards have a good reputation in building of small and medium tonnage chemical tankers. By March 2023, Türkiye was in the 6th place according to quantity among the countries which take tanker orders.

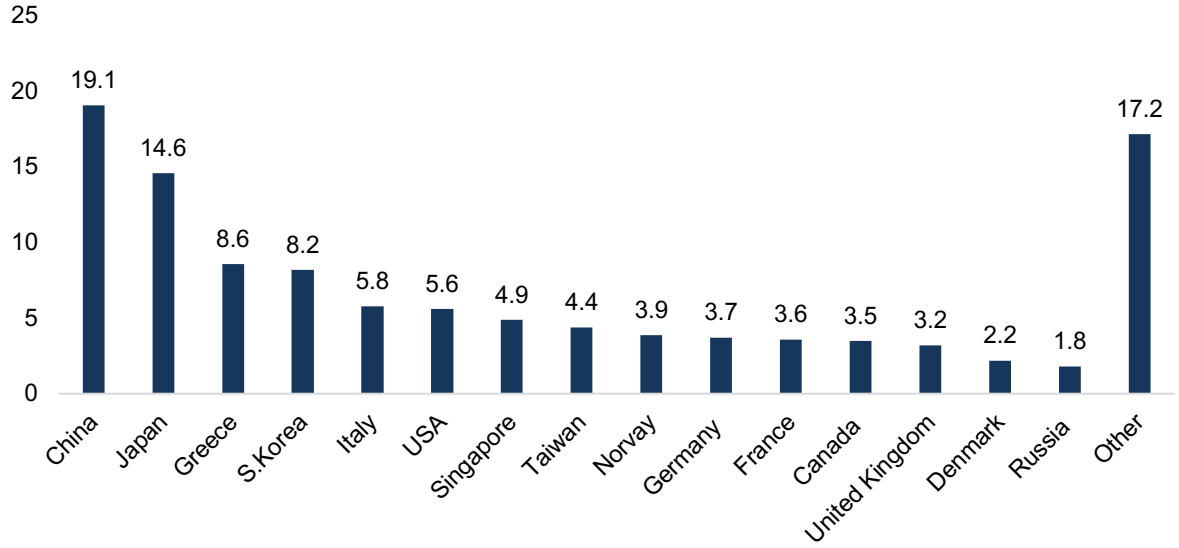
Graph 41. Tanker Orders by Builder Country (Quantity)



Source: Clarkson Research Services 03/2023

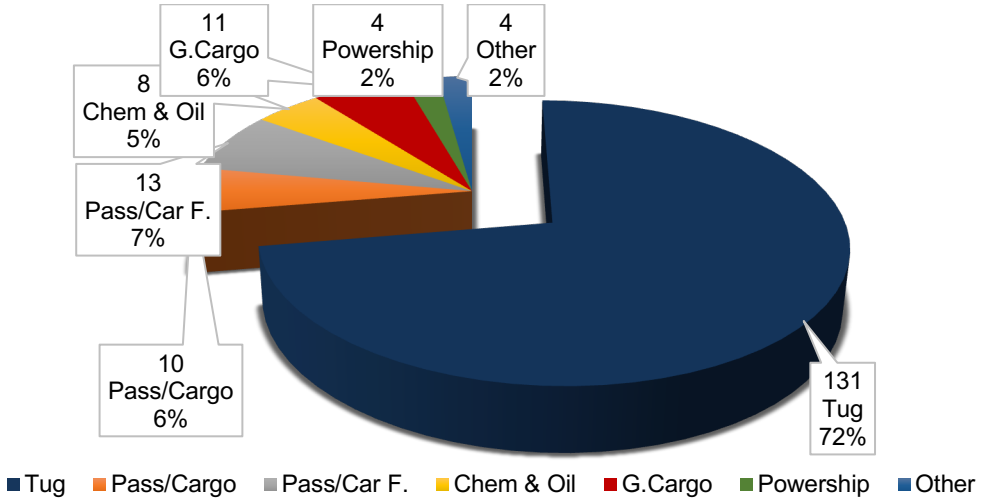
Turkish shipowners worldwide orders consist of 121 ships about 757.666 million CGT as of March 2023.

Graph 42. Orderbook by Owner Country



Source: Clarkson Research Services 03/2023

Graph 43. Distribution of Orders According to Shiptype in Turkish Shipyards



Source: Clarkson Research Services 03/2022

4.2. Defence Industry Projects

Projects about the defence industry have gained a great accelaration within the last few years. Especially with the significiant achivements of the MİLGEM Project, Turkish shipyards have started to take orders from abroad for the naval shipbuilding projects in which high ratio of local industry participation exists. It is known that there are approximately 162 countries which have the naval forces around the World. Türkiye is one of the 10 countries which has the ability of designing, building and maintaining a naval ship. The progress in the field of defence industry projects, that was mostly foreign-dependent in the past, can be clearly seen correspondingly with the level that Turkish Shipbuilding industry has been reached now. Today Türkiye's naval needs are provided by the Shipyards of its own country.

Naval platform projects in the defence industry[2];

1. Multi-Purpose Amphibious Assault Ship (LHD)
2. Coast Guard Search & Rescue Boat
3. New Type Patrol Boat (YTKB)
4. New Type Submarıne Project
5. Barbaros Class Frigate Half-Life Modernization Project
6. Preveze Class Submarine Half-Life Modernization Project
7. Control Boat Project
8. Turkish Type Assault Boat Project
9. Fuel Ship Supply Project

[2] For detailed information, visit the web site Presidency of The Republic of Türkiye Defence İndustry. (https://www.ssb.gov.tr/WebSite/contentlist.aspx?PageID=88&LangID=2)

10. Logistics Ship Supply Project

4.3. Yacht and Boat Building Industry

Yacht and boat building is one of the most important sectors with its high accretion value, high export ratio and it provides employment. This industry is the combination of the sectors in yards dealing with ironing, painting, electric-electronic, textile, decoration etc.

Yacht and boat building industry is quite different from the shipbuilding because of its concept, scope, and technology. In shipbuilding industry long term investments and big coastal areas are needed for production, but in boat & yacht building, relatively less investments, areas and time are needed. Boat&yacht building comparatively does not need very big investments but has a big accretion value.

Türkiye: with its beautiful coasts, cultural and historical resources, has a great market potential not only for yachts but also especially for mega-yacht tourism. Inclusion of mega-yacht mooring places to the projects, which are planning to be constructed in Ataköy and Zeytinburnu, will be a great prestige and income for our marine tourism.

To summarize the advantages of our boat&yacht building industry, the main positive aspects are;

- Educated and competent labour
- Production quality in accordance with international standards
- Reasonable costs
- Adequate sub industry with quality
- Technology basis production
- Closeness to theinternational markets
- Appropriate climate
- Our country's potential in boat&yacht building

Main disadvantages are;

- Heavy taxes of special consumption, value added, and motor vehicle collected from boats.
- Long bureaucratic procedures during the registering operations.
-

Türkiye was in the third place in global order book by the total length of 3594 meters at the end of 2017. By 2019, moved to fourth place with the total length of 3000 meters. And in the February 2020, Türkiye back in the 3rd position in world ranking of order and under construction of yachts with 3071 meters of length. By 2021, Türkiye keeping its position in the 3rd position with the total length of 3497 meters. According to the data of 2022, it is in the 4th place with 54,494 GT.

Table 49. Top Builder of Superyacht Projects on Order in 2022

Rank	Country	Total GT	Number of Projects	Avarage GT
1	Italy	211,416	593	357
2	Netherlands	93,598	76	1,232
3	Germany	85,909	20	4,293
4	Türkiye	54,494	102	534
5	Taiwan	22,962	108	213

Source: Boat International (2023 Global Order Book)

4.4. Sub-Industry

In parallel with to the improvements of the recent years, theTurkish sub-industry is in progress, but still some of the items are imported by the shipyards due to the lack of production. Sub-industry, which is 20% percent of the ship's price, is one of the most important branches in the shipbuilding industry. It has the highest employment value in sub-sectors. Main problem of sub-industry in Türkiye is to be made by local and small enterprises which cause problems about standardizing and approving the products.

Turkish sub-industry regarded as one of the best in supplying anchor, chain, bollard, electric cables, and hydraulic units, but in electronic equipment especially in navigational systems, due to their producers are a few worldwide, sector needs to obtain them from the import resources. Steel sheet production in Türkiye can also meet onlythe small amount of the requests.

Turkish Sub-industry is able to produce;

- Anchor, chain, bollard, locking equipments
- Windlass and equipments
- Valves and Central heating Systems
- Electric Panels and Tables
- Fire Fighting Systems
- Pumps
- Isolation Equipments
- Pipes
- Refrigerated Units
- Hatch Covers
- Diesel generator
- Boiler
- Carpenter and furnishings
- Paint

Main items imported in sub-industry can be summarized as;

- Sheet steel/iron and profiles
- Holland profiles
- Telecommunication systems
- Rudder Systems
- Bow /Stern thrusters.

Sub-industry creates employment as 1 to 3. In 2002 employment in sub-industry was 30,000 people and it raised to 103,500 but unfortunately due to the global economic crisis it decreased to 57,537 by the end of 2009. By August 2020, employement in the sub-industry declared to be 97,250 persons.

CHAPTER V

SHIP RECYCLING INDUTSRY

5. SHIP RECYCLING INDUTSRY

Aliağa region, located in the city of İzmir, is in the leading position for ship breaking and recyling activities with 23 operative facilities. Ship Recylcling Industry is a part of maritime sector that finds itself between the withdrawal of ships which have completed their economic lives and the replacement of them with the ones based on new technologies, environmentally friendly, high operating efficient, reducing the risks of marine operations.

Generally a ship's useful economic life period ranges between 20-35 years and when scrap steel was recovered, it's estimated that,

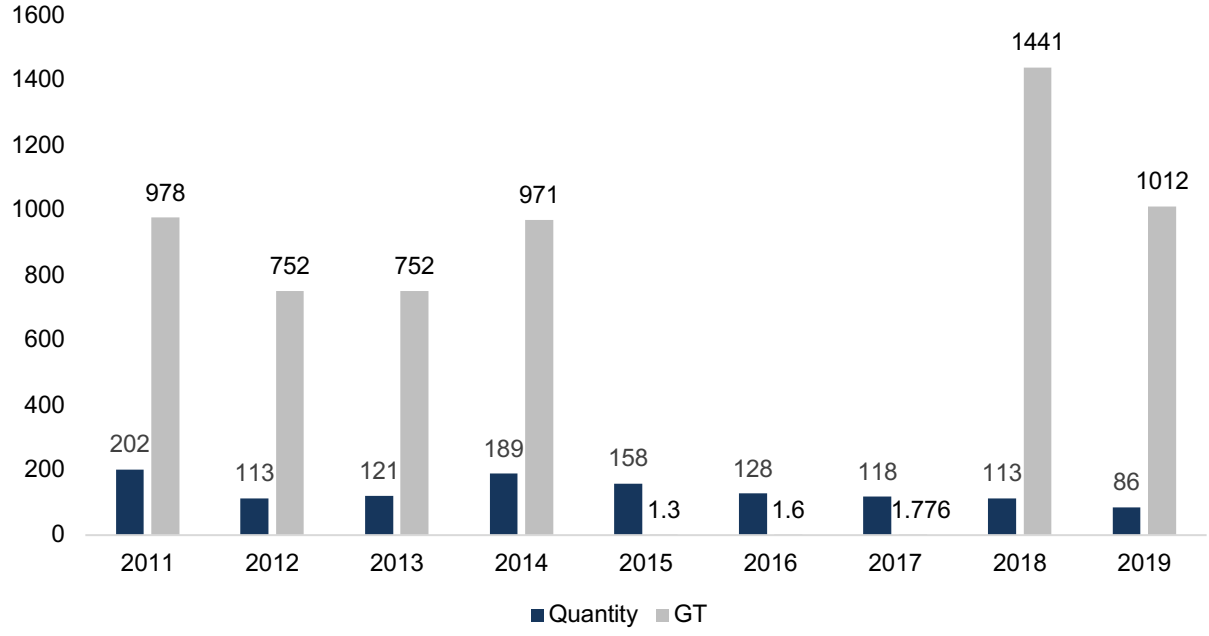
- Energy saving ratio is 74%, raw material resources preserved by 90%
- 40% less water consumption
- 76% less sewage pollution
- 86% less air pollution
- 97% less mine residue

observed.

The main advantages of Türkiye's ship recycling industry which has a prestigious place in World ranking can be summarize as follows:

- Qualified labour force and closeness to the Europe Market
- Within the Mediterranean basin Türkiye is the only country with ship recycling industry
- Türkiye is the only OECD Member country which has ship recycling industry
- There is a demand in the country for the goods obtained by recycling
- Entrepreneur being of Turkish bussinessman and skilled workers
- Advantages by the Basel Agreement as an OECD member country
- Position in EU Ship Recyclers' List with the most number of facilities

Graph 44. Türkiye's Ship Recycling Values by the Year



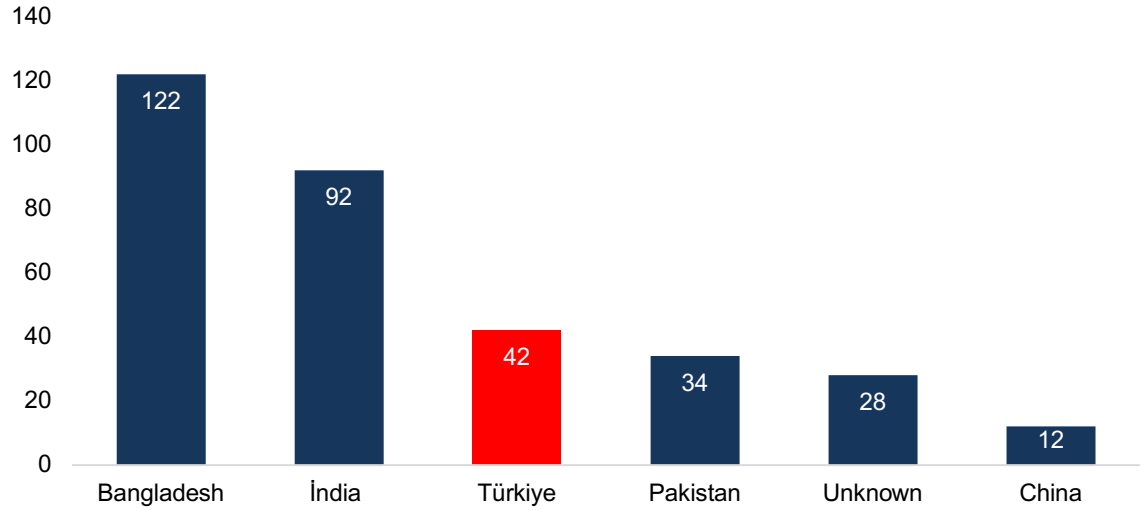
Source: Ministry of Transport and Infrastrucure 03/2023

Ship Recycling Industry makes positive impact to the dynamics within the maritime sector. By balancing the fleet tonnage it also effects the freight index. Provides new orders for shipbuilding industry. As a labor-intensive sector, Turkish ship recycling industry with the technical supports and advertising activities to raise international recognition, provides direct emplyoment opportinity to 1400 persons and several times more by being a supplier and sub-contractor of iron-steel industry as of 2020.

By the EU Ship Recycling Regulation (EU SRR) which has came into force on 31 December 2018, its forbidden that EU flag vessels can not be recycled in the facilities that isn't in the list of "European List of Ship Recycling Facilities" At first Türkiye entered the above mentioned list with 3 facility then it raised up to 6 in 2022.

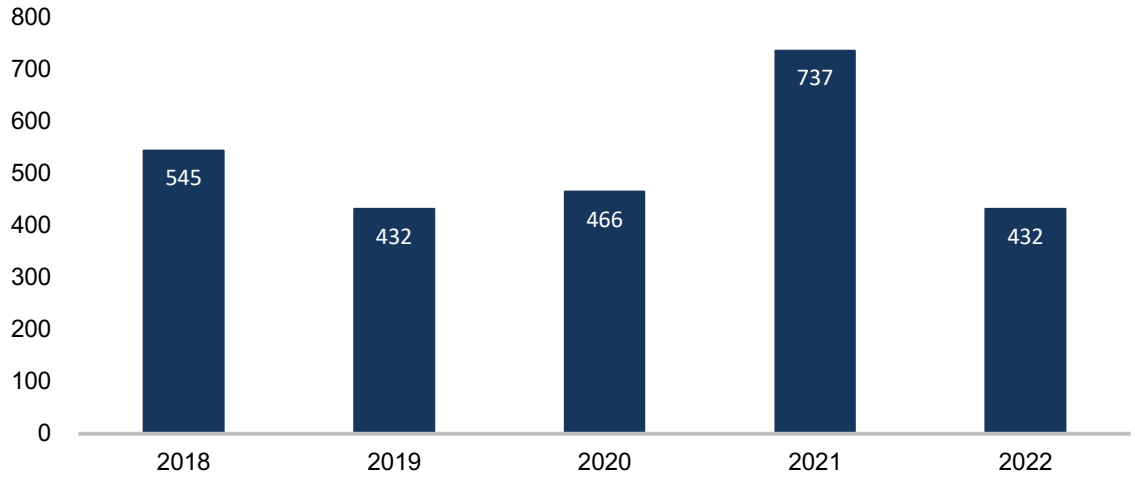
Accoardind to global data, Türkiye is in the 3th place in ranking according to quantity by the end of 2022.

Graph 45. Global Ship Recycling According to Quantity (Quantity)



Source: Clarksons Research Services Limited 03/2023

Graph 46. Recycled Ship Numbers by Years

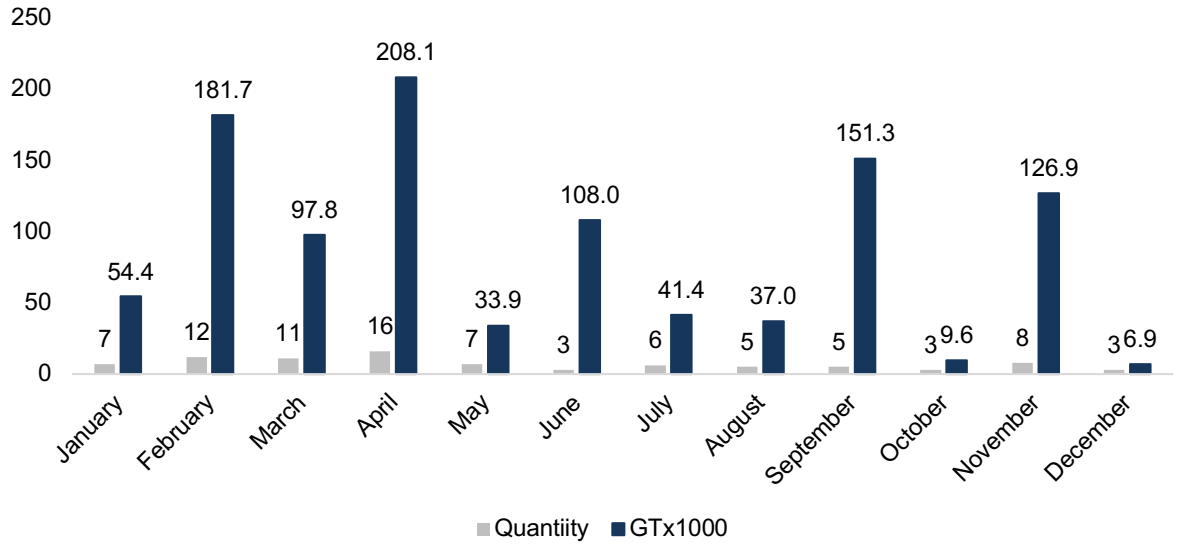


Source: Clarksons Research Services Limited

Like all other participants in the maritime sector, ship recycling has also effected from the Covid-19 global pandemic. In parallel to hygine and social distance precautions, employee numbers in ship recylcing industry reduced and it's estimated that the related sectors employees declined by half when compared to the pre-pandemic period.

By the end of 2022, Türkiye's ship recycling facilities achieved to recycle 86 ships with the tonnage of 1,012 GT.

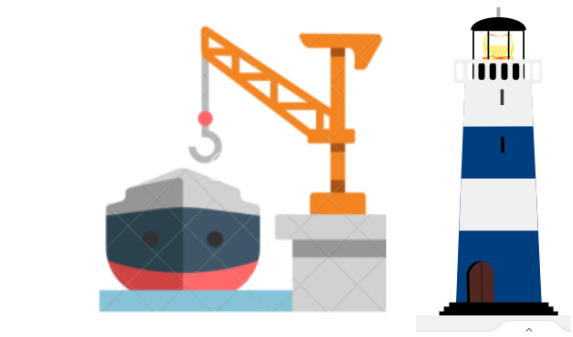
Graph 47. Ship Recycling by Months in Türkiye During 2022

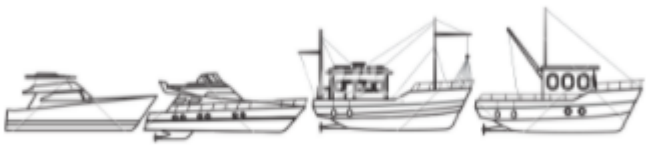


Source: Ministry of Transport and Infrastrucure 03/2023

CHAPTER VI

COASTAL STRUCTURES





6. COASTAL STRUCTURES

6.1. General Situation of Coastal Structures in Our Country

Most of the seas and coasts of our country can be used to serve many different industrial branches thanks to the dominant geographical structure and climatic features in the sea and land, as well as the characteristic features that enable and support production such as geopolitical developments. As of November 2022, there are a total of 957 coastal structures including port and pier facility, marina / yacht port / berthing place, shipyard, boat manufacturing place, boatyard, fishing coastal structure and ship dismantling facility with different functions and activities, and the total length of the coastal areas of our country, which is surrounded by seas on three sides, is 8,333 km.

In these coastal structures and especially in our ports, there have been great changes and developments in recent years. In the emergence of this development on our coasts; certain economic developments and industrial demands and some legal regulations have had a significant impact. Especially after 1997, there was an explosion of demand in this area with the opening of the way for private port investments on the coasts. In the process up to today, apart from the privatized public ports, there is also the growth of the port areas with the expansion projects of the piers in the industrial zones on the coast such as Kocaeli, İskenderun and Aliağa with the new port areas.

In 2010, the Transportation Coastal Structures Master Plan study was carried out and the plan in question; has put forward the analysis of the need for port management on the coasts of our country and the 3 main port projects (Filyos, Çandarlı, Mersin) planned by the Ministry of Transport and Infrastructure at the point of basic recommendations. When we look at the T.R. Ministry of Transport and Infrastructure 2002-2022 Completed Important Projects List published in Türkiye 2002-2022, it is stated that 15 port projects, especially Filyos, Çandarlı and Mersin Ports, have been completed.

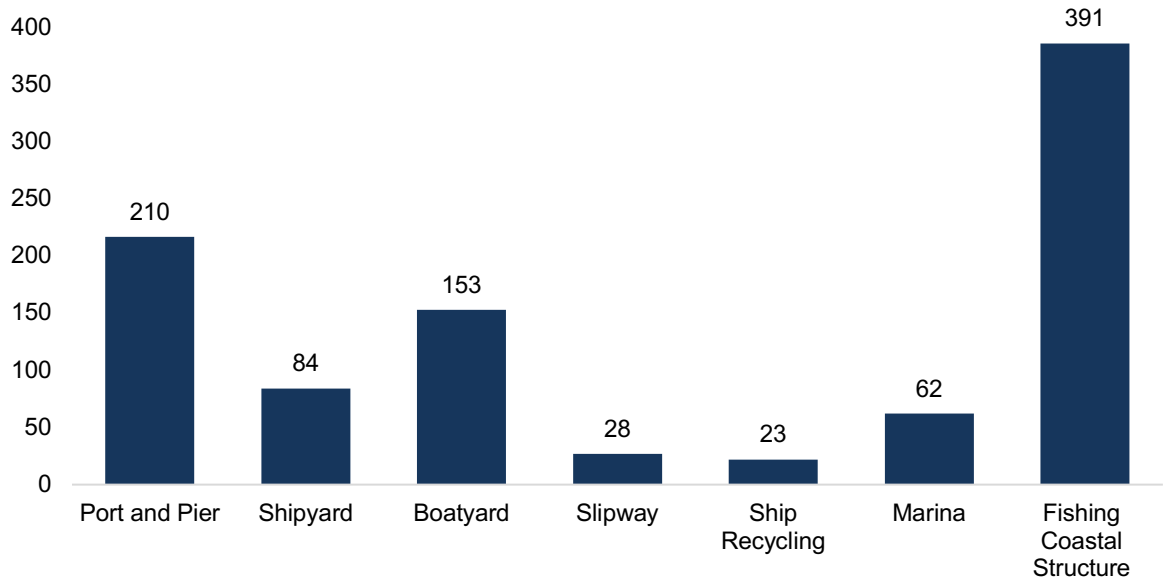
On the other hand, in order to determine the situation for the fishermen's shelters in our country and to complete the technical deficiencies needed by our fishermen's shelters, the "Fishermen's Shelters Needs Analysis Study" was prepared by the Ministry and inventoried.

The increasing tourism potential of our country and the policies created to increase the share it will receive from yacht tourism in the Mediterranean bowl increase the number of marinas. In addition, with the targets foreseen for the tourism coastal structures whose construction has been completed by the public and private sectors, it is aimed to meet the capacity needed in addition to the marinas currently operating.

In order to meet the capacity needed in addition to the marinas that have been realized and are still operated by the public and private sectors in the maritime sector, it is of great importance to create the mandatory infrastructure for yacht tourism with public facilities, Build-Operate-Transfer model and private sector dynamics and to determine the privileged role of our country in the region in terms of tourism.

There are 80 facilities and 21 yacht berths for the purpose of marina and yacht mooring in our country. The current yacht mooring and housing capacity of these facilities is 28,567 yachts. This capacity: It is planned to increase 2,793 with 7 marinas under construction and 19,570 with 34 designed marinas.

Graph 48. Existing Coastal Structures in Our Country



Source: Ministry of Transport and Infrastructure

The coasts, which allow many types of use, are natural resources whose use can be increased with planned use and whose quality can be deteriorated by bad and incorrect use. In our country, where the concept of coastal area is of great importance, it is necessary to approach coastal areas with a more holistic approach in order to protect our existing coastal resources. In order to protect our coasts and ensure their effective use; Work has been initiated by the Ministry of Transport and Infrastructure in order to handle pipeline and float systems built to handle fuel products in Samsun-Kirazlık, Ambarlı, Antalya, Mersin and Tekirdağ regions with separate pipelines through a common platform / terminal system, and study-project studies for the Antalya Region are continuing.

The studies were also shared with the relevant institutions and the Ministry of Environment and Urbanization, the Ministry of Treasury and Finance and the Ministry of Trade received their support in this regard. In order to make the people of our country love the sea more and to ensure that our people benefit more from the sea, the "Survey Project of Safe Shelters and Mooring Systems on Our Coasts" has been carried out especially on the Aegean and Mediterranean coasts where the occupancy rates of yacht harbors are high and for the whole of our country and as a result, it is aimed to solve the biggest problem of private boat owners.

In order to create the legal infrastructure for the solution of some of the housing and mooring needs in our country and to facilitate the process, the definition of "vault systems" has been made in the legislation. It is stipulated that the procedures and principles related to the implementation of these systems shall be determined by the work of the Ministry of Environment and Urbanization and the Ministry of Transport and Infrastructure. In this direction, especially in coastal areas and bays where boat traffic is intense, we continue our legislative studies for the establishment and operation of vault systems that meet the necessary criteria in terms of navigational safety and maritime safety, open to public use, without being subject to private ownership, without being subject to navigation, life, property, and environmental safety, without preventing the use of the coast for public benefit.

6.1.1. Ports

6.1.1.1. Port Investment Projects in Türkiye

Filyos Port Project is working to increase the competitiveness of the industry, to increase its efficiency, to produce high value-added and advanced technology products in order to reach the 2023 vision determined by Türkiye and to become one of the top 10 economies of the world. For this purpose, it has started to create suitable physical infrastructure and facilities for production and trade.

Filyos Industrial Zone, which is the first mega industrial zone of Türkiye, Filyos Free Zone in the south and Filyos Port, one of the largest ports of Türkiye, are also located in the Filyos Investment Basin and are a national investment project that Türkiye emphasizes. With the project, it is planned to create new transportation corridors, reduce the traffic load of Istanbul and Dardanelles Straits, increase qualified production, and develop national and international transportation and trade.

Filyos Port is one of the three major investments planned to meet Türkiye's increasing foreign trade and to make it a regional transshipment center. It is located on the Western Black Sea coast of Türkiye, within the borders of Zonguldak province.

Within the scope of the project;

- 2450 m long main breakwater,
- 1370 m long secondary breakwater,
- 3000 m long (-14 m and -19 m deep) quay,

The infrastructure construction works of Filyos Port, one of the large-scale regional main port projects, have been completed; It has a total cargo handling capacity of 25 million tons, including general cargo, Ro-Ro, dry bulk, and container. It is aimed to realize the construction of the road and railway connection of the port, where survey project studies are being carried out. The port, which has an infrastructure cost of TL 2,226 million, was opened on June 4, 2021 and the work on the tendering of the superstructure with the BOT model was started.

Karasu Port Project, Karasu Port, which is one of the largest ports in the Western Black Sea and opened to operation in March 2017, is currently continuing its works with almost full capacity in a short period of 1.5 years.

Within the scope of the project;

- The port, which has a working area of 250 thousand m², plans to increase its working area to 500 thousand m²,
- 1,108 m long (-11 deep) dock,
- Handling capacity 6,000,000 general loads (tons/year)

Two cranes operate in the port and can serve 5 ships at the same time. It is obvious that the port, which has a connection road to the Black Sea Coastal Road project, will accelerate the capacity increase much more with the completion of the project.

Table 50. Republic of Türkiye Ministry of Transport and Infrastructure 2002-2020 List of Completed Important Projects

No	Soot	Project Name	Project Head.	Proje ICT.	Project Price 2022 (TL)
1	AYGM	Turgutreis Marina (The Build Operate Transfer Project)	2000	2003	180.702.500
2	AYGM	Çanakkale Port (The Build Operate Transfer Project)	2004	2005	308.306.416
3	AYGM	Bodrum Yolcu İskelesi (The Build Operate Transfer Project)	2005	2007	158.689.650
4	AYGM	Didim Marina (The Build Operate Transfer Project)	2006	2009	197.130.000
5	AYGM	Çeşme Marina (The Build Operate Transfer Project)	2008	2010	160.111.516
6	AYGM	Sığacık Marina (The Build Operate Transfer Project)	2008	2010	87.015.817
7	AYGM	Yalova Marina (The Build Operate Transfer Project)	2009	2010	65.552.805
8	AYGM	Kaş Marina (The Build Operate Transfer Project)	2008	2011	190.681.878
9	AYGM	Mersin Marina (The Build Operate Transfer Project)	2009	2011	100.819.346
10	AYGM	Alanya Marina (The Build Operate Transfer Project)	2007	2011	87.106.392
11	AYGM	Kumkuyu Marina (The Build Operate Transfer Project)	2012	2013	44.764.938
12	AYGM	Çandarlı Port (Breakwater)	2011	2014	957.535.544
13	AYGM	Muğla Ören Marina (The Build Operate Transfer Project)	2011	2015	160.168.125
14	AYGM	Karasu Port (The Build Operate Transfer Project)	2014	2017	1.201.083.406
15	AYGM	Filyos Port	2016	2021	2.513.062.088

*AYGM: General Directorate of the Infrastructural Investment

Source: Ministry of Transport and Infrastructure (2002-2022), Reaching Reaching Türkiye Report https://www.uab.gov.tr/uploads/pages/bakanlik-yayinlari/ulasan-erisen-turkiye-171122.pdf

6.1.1.2. Current Status of Ports

The number of ships calling at our ports in 2022 decreased by 13.4% increased to 2021 and reached 58,052. The number of foreign flagged ships calling at our ports increased by 11.2% compared to the previous year, and the number of Turkish flagged ships increased by 18.5%.

Table 51. Total Number of Calling Vessel, 2020-2022

Months	2020			2021			2022		
	Turkish Flag	Foreign Flag	Total	Turkish Flag	Foreign Flag	Total	Turkish Flag	Foreign Flag	Total
January	1,388	2,913	4,301	1,212	2,796	4,008	1,158	2,808	3,966
February	1,323	2,613	3,936	1,097	2,713	3,810	1,145	2,758	3,903
March	1,319	2,679	3,998	1,182	3,022	4,204	1,198	2,882	4,080
April	1,028	2,571	3,599	1,274	3,108	4,382	1,355	3,118	4,473
May	1,058	2,559	3,617	1,354	3,005	4,359	1,736	3,363	5,099
June	1,216	2,707	3,923	1,340	3,015	4,355	1,794	3,464	5,258
July	1,273	2,802	4,075	1,291	2,913	4,204	1,835	3,479	5,314
August	1,299	2,810	4,109	1,418	3,205	4,623	1,799	3,752	5,551
September	1,329	2,865	4,194	1,274	3,137	4,411	1,661	3,859	5,520
October	1,416	3,092	4,508	1,244	3,114	4,358	1,589	3,843	5,432
November	1,252	2,916	4,168	1,244	3,001	4,245	1,292	3,466	4,758
December	1,321	3,072	4,393	1,190	3,050	4,240	1,359	3,339	4,698
Total	**15,222**	**33,599**	**4,.821**	**15,120**	**36,079**	**51,199**	**17,921**	**40,131**	**58,052**

Source: Ministry of Transport and Infrastructure, Republic of Türkiye

Table 52. Calling Vessel Statistics at Turkish Ports According to the Harbour Masters Area of Jurisdiction

Harbour Master	2020 Total		2021 Total		2022 Total	
	NO. of Ship	Gross Tonnage	NO. of Ship	Gross Tonnage	NO. of Ship	Gross Tonnage
Alanya	20	707,498	19	733,388	29	1,021,163
Aliağa	5,356	102,687,486	5,783	109,543,467	6,067	115,127,698
Amasra	5	4,963	2	1,985	10	310,441
Ambarlı	3,455	87,045,737	3,453	84,542,039	3,895	77,363,575
Anamur	0	0	1	2,491	0	0
Antalya	703	7,986,149	748	8,598,254	690	8,700,424
Ayancık	0	0	0	0	0	0
Ayvalık	62	20,571	15	5,881	477	168,959
Bandıma	1,059	5,695,379	1,040	5,479,378	1,061	5,648,654
Bartın	505	1,756,059	512	1,745,879	364	1,284,167
Bodrum	125	31,196	5	70,458	2,071	5,978,174
Bozcaada	10	101,339	8	22,838	11	409,360
Ceyhan	1,256	46,427,640	1,183	44,188,601	1,293	47,912,867
Cide	0	0	0	0	0	0
Çanakkale	457	3,303,032	468	3,364,611	522	3,998,991
Çeşme	522	5,312,005	505	4,877,177	1,458	7,083,367
Datça	0	0	0	0	1	43,188
Dikili	121	435,420	134	420,434	185	1,083,514
Edremit	0	0	0	0	0	0

Harbour Master	2020 Total		2021 Total		2022 Total	
	NO. of Ship	Gross Tonnage	NO. of Ship	Gross Tonnage	NO. of Ship	Gross Tonnage
Enez	0	0	0	0	0	0
Erdek	9	5,540	56	15,594	0	0
Fatsa	38	109,107	37	95,076	40	89,319
Fethiye	73	439,936	73	516,702	413	660,115
Finike	0	0	1	2,659	2	998
Foça	0	0	0	0	0	0
Gemlik	3,308	59,116,408	3,504	60,977,094	3,485	57,398,019
Gerze	0	0	0	0	0	0
Giresun	150	780,920	154	992,953	90	768,032
Göcek	3	5,994	14	27,972	23	47,454
Gökçeada	0	0	0	0	0	0
Görele	0	0	0	0	0	0
Güllük	387	4,114,934	531	5,682,217	557	5,619,840
Hopa	193	702,131	146	487,989	140	509,520
İğneada	9	13,322	1	6,074	0	0
İnebolu	102	324,455	95	321,547	79	261,533
İskenderun	4,052	76,327,130	4,634	80,686,077	4,694	76,916,598
İstanbul	654	5,162,848	538	6,227,847	1,375	28,571,617
İzmir	1,660	24,797,800	1,530	22,619,154	1,586	22,482,893
Karabiga	902	9,536,036	940	9,449,840	996	8,984,559
Karadeniz Ereğli	825	8,281,576	883	9,532,736	818	7,869,189
Karasu	394	5,136,976	477	6,115,714	388	2,946,298
Karataş	0	0	0	0	0	0
Kaş	5	804	8	10,259	31	76,850
Kefken	0	0	0	0	0	0
Kemer	0	0	0	0	0	0
Kocaeli	8,976	146,524,596	9,554	154,977,812	9,321	156,056,459
Kuşadası	6	77,451	33	1,071,672	967	26,003,369
Manavgat	0	0	0	0	0	0
Marmara Adası	656	1,061,429	791	1,113,540	734	1,031,163
Marmaris	53	115,809	39	2,005,793	367	932,833
Mersin	3,903	78,899,280	4,122	80,798,905	4,257	74,375,125
Mudanya	0	0	0	0	1	1,998
Ordu	0	0	0	0	0	0
Pazar	0	0	0	0	0	0
Rize	168	558,418	155	530,841	117	430,269
Samsun	2,830	16,558,339	2,711	16,880,372	2,789	17,644,182
Silivri	7	10,801	2	2,793	10	5,152
Sinop	1	1,949	0	0	17	551,629
Sürmene	5	3,228	3	682	10	4,153
Şile	0	0	0	0	0	0
Taşucu	723	5,608,135	790	6,309,202	989	7,665,864
Tekirdağ	2,541	53,368,023	2,712	63,031,782	2,845	60,305,866
Tirebolu	53	475,437	50	406,370	60	521,090
Trabzon	428	2,633,595	407	2,669,160	414	2,995,025
Tuzla	617	12,871,512	779	15,152,458	796	15,770,190
Ünye	335	976,017	284	839,965	253	865,167
Vakfıkebir	0	0	0	0	0	0
Yalova	472	6,915,714	565	8,847,130	549	10,122,512
Zonguldak	627	7851,526	704	7,615,241	705	8,710,208
Total	**48,821**	**790,881,650**	**51,199**	**829,618,101**	**58,052**	**873,329,628**

Source: Ministry of Transport and Infrastructure, Republic of Türkiye, İMEAK Chamber of Shipping Images

According to the data of the Ministry of Transport and Infrastructure, Maritime Affairs and Communications, 542,610,283 tons of cargo were handled in our country's ports and piers in 2022.

Of the total cargo handled in 2022;

- 27.7% (150,172,902 tons) of export,
- 45% (243,917,119 tons) of import,
- 12.4% (67,501,276 tons) of cabotage,
- 14.9% (81,018,986 tons) of it was realized as transit.

Table 53. Cargo Handling Figures at Turkish Port, 2018-2022

Mode of Transport	Flag	2018	2019	2020	2021	2022
Export	Turkish Flag	15,660,122	14,132,161	13,580,911	14,742,145	13,808,674
	Foreign Flag	94,764,513	117,544,417	125,321,912	139,021,513	136,364,228
	Total	110,424,635	131,676,578	138,902,823	153,763,658	150,172,902
Import	Turkish Flag	19,850,109	13,763,576	16,098,249	15,257,051	14,634,461
	Foreign Flag	198,694,711	207,641,236	210,441,223	217,376,009	229,282,658
	Total	218,544,820	221,404,812	226,539,472	232,633,060	243,917,119
Cabotage	Turkish Flag	29,550,554	28,251,017	29,763,556	31,184,349	34,027,952
	Foreign Flag	30,005,291	27,861,707	29,033,828	30,716,773	33,473,324
	Total	59,555,845	56,112,724	58,797,384	61,901,122	67,501,276
Transit	Turkish Flag	63,081,077	64,960,731	60,490,257	62,603,531	65,949,720
	Foreign Flag	8,547,183	10,013,567	11,912,715	15,405,413	15,069,266
	Total	71,628,260	74,974,298	72,402,972	78,008,944	81,018,986
Total	**Turkish Flag**	**203,056,266**	**224,888,326**	**229,156,636**	**247,551,538**	**250,150,574**
	Foreign Flag	**257,097,294**	**259,280,086**	**267,486,015**	**278,755,246**	**292,459,709**
	Total	**460,153,560**	**484,168,412**	**496,642,651**	**526,306,784**	**542,610,283**

Source: Ministry of Transport and Infrastructure, Republic of Türkiye, İMEAK Chamber of Shipping Images

Table 54. Cargo Handling Statistics at Turkish Ports According to the Harbour Masters Area of Jurisdiction

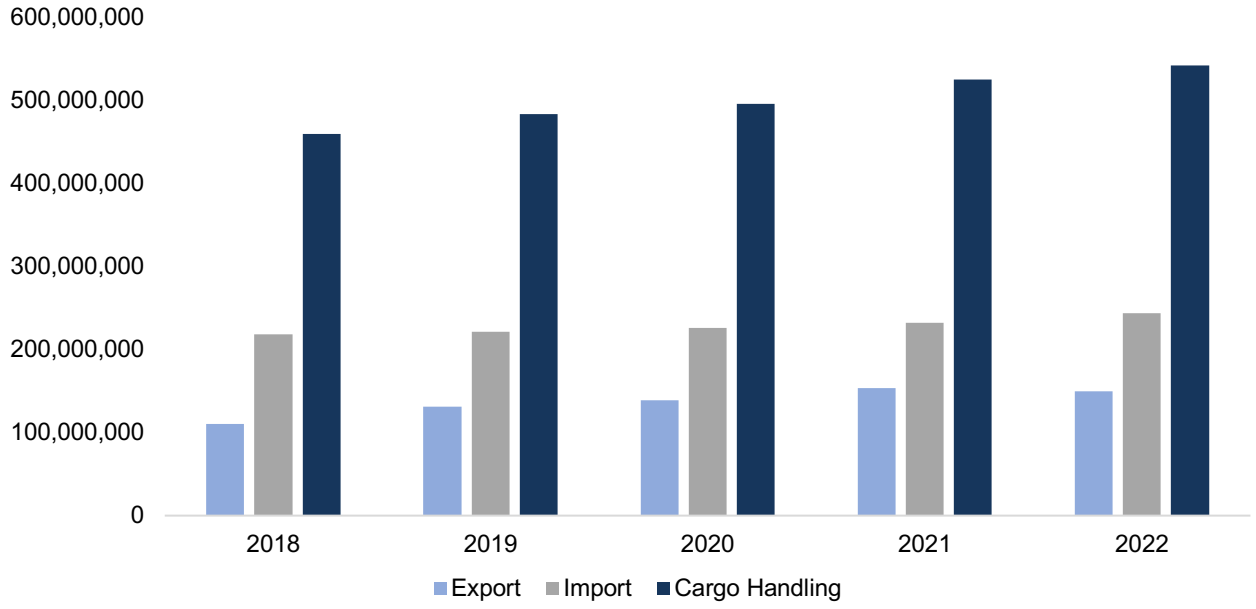
Harbour Master	2020			2021			2022		
	Total Loading	Total Unloading	Cargo Handling	Total Loading	Total Unloading	Cargo Handling	Total Loading	Total Unloading	Cargo Handling
Alanya	0	180,278	180,278	0	160,087	160,087	0	146,290	146,290
Aliağa	27,558,357	41,387,644	68,946,001	29,425,210	44,464,667	73,889,877	32,851,690	48,205,245	81,056,935
Amasra	2,770	0	2,770	2,500	0	2,500	1,695	0	1,695
Ambarlı	15,385,143	16,510,191	31,895,334	15,052,407	16,924,930	31,977,337	13,743,654	16,988,811	30,732,465
Antalya	3,571,347	1,952,306	5,523,653	4,050,242	2,763,694	6,813,936	3,716,333	3,036,790	6,753,123
Ayvalık	1,295	25	1,320	1,928	0	1,928	4,557	5	4,562
Bandıma	1,629,584	4,031,579	5,661,163	2,056,855	3,780,571	5,837,426	1,752,858	4,127,109	5,879,967
Bartın	987,080	996,955	1,984,035	906,217	1,075,009	1,981,226	757,590	698350	1,455,940
Bodrum	0	0	0	0	0	0	0	1,847	1,847
Ceyhan	56,079,629	10,763,372	66,843,001	54,603,343	8,611,620	63,214,963	55,733,914	12,493,520	68,227,434
Bozcaada	0	0	0	0	695	695	0	0	0
Çanakkale	4,114,606	596,442	4,711,048	3,891,741	598,772	4,490,513	3,862,491	541,190	4,403,681
Çeşme	654,088	582,316	1,236,404	794,007	730,189	1,524,196	885,972	831,168	1,717,140
Dikili	451,759	46,258	498,017	501,901	15,107	517,008	643,438	96,413	739,851
Erdek	0	2,191	2,191	1,000	1,000	2,000	0	0	0
Fatsa	68,593	57,875	126,468	91,974	29,317	121,291	84,230	29,639	113,869
Gemlik	7,530,873	6,760,998	14,291,871	9,222,262	6,759,127	15,981,389	8,276,184	7,116,927	15,393,111
Giresun	387,647	429,876	817,523	464,517	620,503	1,085,020	374,332	371,459	745,791
Göcek	0	7,950	7,950	0	32,245	32,245	0	44,950	44,950
Güllük	5,761,436	1,048	5,762,484	8,157,273	87,784	8,245,057	7,860,703	93,882	7,954,585
Hopa	443,121	488,446	931,567	368,675	289,525	658,200	412,873	203,081	615,954
İğneada	12,450	0	12,450	0	0	0	0	0	0
İnebolu	237,118	98,925	336,043	235,547	71,665	307,212	158,919	82,910	241,829
İskenderun	22,969,022	38,000,214	60,969,236	26,743,950	41,067,560	67,811,510	26,570,580	41,064,957	67,635,537
İstanbul	300,185	1,858,138	2,158,323	256,828	2,347,694	2,604,522	367,266	3,036,652	3,403,918
İzmir	4,743,600	4,646,412	9,390,012	4,511,022	4,527,223	9,038,245	3,917,331	4,345,495	8,262,826
Karabiga	2,657,749	11,271,861	13,929,610	2,622,428	11,308,281	13,930,709	2,668,279	11,023,028	13,691,307
Karadeniz Ereğli	1,884,931	8,793,317	10,678,248	2,308,196	9,182,808	11,491,004	1,830,158	8,069,899	9,900,057
Karasu	398,918	983,246	1,382,164	759,901	1,280,805	2,040,706	198,042	1,282,977	1,481,019
Kefken	0	0	0	0	1,410	1,410	0	0	0
Kocaeli	2,375,494	47,142,131	76,517,625	32,055,045	49,280,098	81,335,143	32,950,733	49,848,471	82,799,204
Marmara Adası	1,519,441	1,982	1,521,423	1,661,412	2,301	1,663,713	1,595,820	1,340	1,597,160
Marmaris	50	48,235	48,285	0	11,292	11,292	7	10,561	10,568

Harbour Master	2020			2021			2022		
	Total Loading	Total Unloading	Cargo Handling	Total Loading	Total Unloading	Cargo Handling	Total Loading	Total Unloading	Cargo Handling
Mersin	16,810,414	20,942,019	37,752,433	18,930,528	20,811,161	39,741,689	17,561,677	21,334,890	38,896,567
Mudanya	0	0	0	0	0	0	0	700	700
Rize	87,500	561,504	649,004	83,470	552,306	635,776	119,732	383,772	503,504
Samsun	3,674,088	9,321,752	12,995,840	3,930,027	9,247,048	13,177,075	4,000,862	9,583,291	13,584,153
Silivri	0	10,500	10,500	0	655	655	0	3,360	3,360
Sürmene	0	990	990	34	0	34	65	0	65
Şile	0	0	0	0	0	0	0	0	0
Taşucu	3,714,877	576,755	4,291,632	3,721,701	425,913	4,147,614	3,961,428	832,051	4,793,479
Tekirdağ	10,134,526	22,121,784	32,256,310	13,913,418	24,881,385	38,794,803	16,114,787	28,058,026	44,172,813
Tirebolu	0	426,240	426,240	0	381,396	381,396	0	400,710	400,710
Trabzon	242,451	2,088,276	2,330,727	178,611	2,095,316	2,273,927	395,947	2,073,720	2,469,667
Tuzla	2,233,830	2,242,081	4,475,911	2,739,257	2,938,537	5,677,794	2,999,121	3,086,844	6,085,965
Ünye	1,135,117	208,480	1,343,597	834,361	269,677	1,104,038	839,927	217,369	1,057,296
Yalova	910,616	1,465,340	2,375,956	1,178,091	2,035,251	3,213,342	1,305,960	2,238,286	3,544,246
Zonguldak	1,486,931	9,880,083	11,367,014	1,295,659	9,090,622	10,386,281	1,631,419	10,453,724	12,085,143
Grand Total	**229,156,636**	**267,486,015**	**496,642,651**	**247,551,538**	**278,755,246**	**526,306,784**	**250,150,574**	**292,459,709**	**542,610,283**

Source: Ministry of Transport and Infrastructure, Republic of Türkiye, İMEAK Chamber of Shipping Images

In 2022, compared to 2021, the amount of cargo handled at our ports increased by 3.1% (16,303,499 tons).

Graph 49. Cargo Handling by Years, 2018-2022



Source: Ministry of Transport and Infrastructure, Republic of Türkiye

In 2022, the amount of containers screened at the ports and piers of our country was 12,366,382 TEU.

Container handling;

- 38% (4,694,918 TEU) export,
- 39.9% (4,814,757 TEU) import,
- 6.6% (820,949 TEU) of cabotage,
- 16.5% (2,035,758 TEU) was realized as transit.

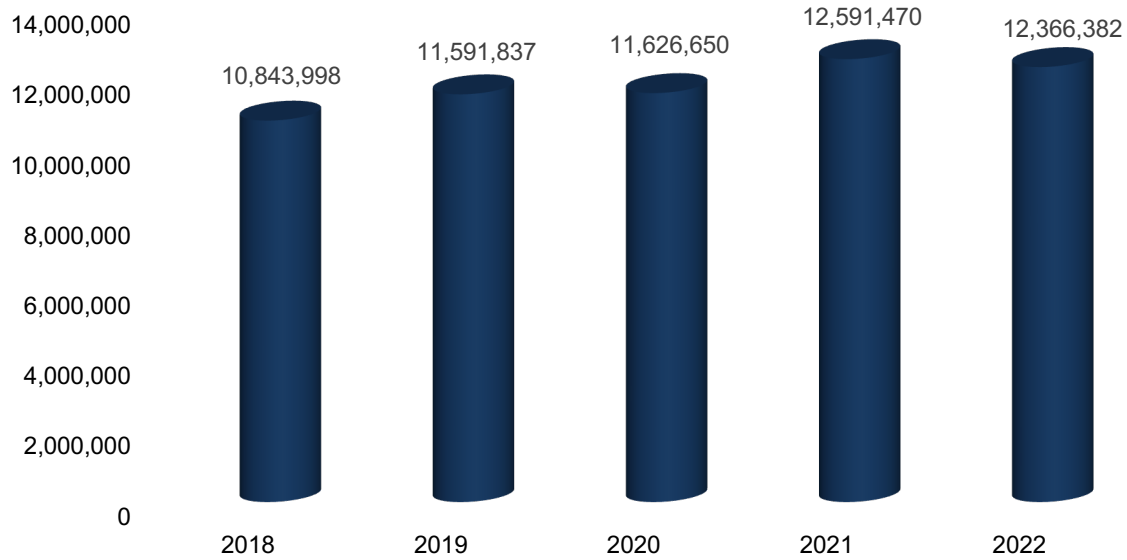
Table 55. Container Handling Figures at Turkish Ports (TEU), 2018-2022

Mode of Transport	2018	2019	2020	2021	2022
Export	4,160.124	4,594,647	4,618,225	4,677,414	4,694,918
Import	4,259.029	4,540,201	4,480,472	4,744,227	4,814,757
Cabotage	935,661	753,267	731,352	831,986	820,949
Transit	1,489,184	1,703,722	1,796,601	2,337,843	2,035,758
Grand Total	**10,843,998**	**11,591,837**	**11,626,650**	**12,591,470**	**12,366,382**

Source: Ministry of Transport and Infrastructure, Republic of Türkiye, İMEAK Chamber of Shipping Images

In 2022, compared to 2021, the amount of containers handled at our ports decreased by 1.8% (225,088 TEU).

Graph 50. Container Handling Figures at Turkish Ports (TEU), 2018-2022



Source: Ministry of Transport and Infrastructure, Republic of Türkiye

6.1.1.3. General Developments in World Ports

In 2021, Shangai port is still the port that handles the most containers with 47 million TEU. It is still the top 3 ports that handled the most containers in 2021 compared to the previous year.

Table 56. Most Container Handling Ports in the World (mteu)

Region/Port	2016	2017	2018	2019	2020	2021
Busan	19.50	20.50	21.60	22.00	21.80	22.50
Colombo	5.70	6.20	7.00	7.20	6.90	
Guangzhou	18.60	20.10	21.60	22.80	23.20	24.20
Hong Kong	19.60	20.80	19.60	18.40	18.00	17.90
Kaohsiung	10.50	10.30	10.40	10.40	9.60	9.90
Keelung	1.40	1.60	1.50	1.50	1.50	1.60
Kobe	2.80	2.90	2.90	2.90	2.60	
Manila	4.50	4.80	5.10	5.30	4.40	
Nagoya	2.70	2.80	2.90	2.80	2.50	
Ningbo	21.60	24.60	26.40	27.50	28.70	31.10
Osaka	2.20	2.30	2.40	2.50	2.10	
Port Klang	13.20	12.00	12.30	13.60	13.20	13.80
Qingdao	18.00	18.30	19.30	21.00	22.00	23.70
Shanghai	37.10	40.20	42.00	43.30	43.50	47.00
Shenzhen	24.10	25.30	25.70	25.80	26.60	28.80
Singapore	30.90	33.70	36.60	37.20	36.90	37.50
Tanjung Priok	5.50	6.90	7.80	7.70	6.90	
Tianjin	14.50	15.00	16.00	17.30	18.40	20.30
Tokyo	4.70	5.00	5.10	4.90	4.60	4.50
Yokohama	2.80	2.90	3.00	3.00	2.70	
Asia	**397.8**	**424.5**	**445.8**	**459.1**	**458.2**	**489.7**
% y-o-y	*2%*	*7%*	*5%*	*3%*	*0%*	*7%*
Algeciras	4.80	4.40	4.80	5.10	5.10	4.80
Antwerp	10.00	10.50	11.10	11.90	12.00	
Barcelona	2.20	3.00	3.40	3.30	3.00	
Bremen/Bremerhaven	5.50	5.50	5.50	4.90	4.80	
Felixstowe	4.10	4.30	3.90	3.60	3.50	

Region/Port	2016	2017	2018	2019	2020	2021
Genoa	2.40	2.70	2.70	2.70	2.50	
Hamburg	8.90	8.80	8.70	9.30	8.50	
La Spezia	1.30	1.50	1.50	1.40	1.10	
Le Havre	2.50	2.90	2.90	2.80	2.40	
Marseilles/Fos	1.30	1.40	1.40	1.50	1.30	
Rotterdam	12.40	13.70	14.50	14.80	14.30	
Southampton	2.00	2.00	2.00	1.90	1.80	
NW and Med Europe	**134.8**	**143.1**	**150.2**	**150.5**	**146.0**	**154.0**
% y-o-y	*3%*	*6%*	*5%*	*0%*	*-3%*	*5%*
Charleston	2.00	2.20	2.30	2.40	2.30	2.80
Hampton Roads	2.70	2.80	2.90	2.90	2.80	
Long Beach	6.80	7.50	8.10	7.60	8.10	9.40
Los Angeles	8.90	9.30	9.50	9.30	9.20	
Montreal	1.40	1.50	1.70	1.70	1.60	
New York/New Jersey	6.30	6.70	7.20	7.50	7.60	
Oakland	2.40	2.40	2.50	2.50	2.50	2.40
Seattle-Tacoma	3.60	3.70	3.80	3.80	3.30	3.70
Vancouver	2.90	3.30	3.40	3.40	3.50	3.60
N America	**61.7**	**64.9**	**68.3**	**69.6**	**69.9**	**79.9**
% y-o-y	*1%*	*5%*	*5%*	*2%*	*0%*	*14%*
Dubai	14.80	15.40	15.00	14.10	13.50	
Jawaharlal Nehru	4.50	4.70	5.10	5.10	4.50	5.60
Mundra	4.80	4.20	4.40	4.80	5.70	
Mittle East and ISC	**64.8**	**68.3**	**70.4**	**73.2**	**70.5**	**74.5**
% y-o-y	*2%*	*5%*	*3%*	*4%*	*-4%*	*6%*
Buenos Aires	1.40	1.50	1.80	1.50	1.40	
San Juan	1.30	1.20	1.40	1.50	1.50	
Santos	3.60	3.90	4.10	4.20	4.20	
C and S America	**42.8**	**44.5**	**46.8**	**46.0**	**44.8**	**49.5**
% y-o-y	*-1%*	*4%*	*5%*	*-2%*	*-3%*	*10%*

Region/Port	2016	2017	2018	2019	2020	2021
Sydney	2.40	2.50	2.60	2.60	2.50	
Melbourne	2.70	2.80	3.00	3.00	1.30	
Oceania	**11.6**	**12.0**	**12.9**	**12.6**	**12.5**	**12.5**
% y-o-y	*0%*	*3%*	*7%*	*-2%*	*-1%*	*0%*
Region/Port	**2016**	**2017**	**2018**	**2019**	**2020**	**2021**
Cape Town	0.90	0.90	0.90	0.90	0.80	
Durban	2.60	2.70	3.00	2.80	2.60	
Mombasa	1.10	1.20	1.30	1.40	1.50	
Africa	**14.6**	**15.9**	**17.1**	**16.7**	**16.5**	**17.2**
% y-o-y	*-2%*	*9%*	*8%*	*-2%*	*-2%*	*4%*

Source: Clarksons Research, İMEAK Chamber of Shipping Images

Table 57. Cargo Handling Statistics by Countries

Country	2019	2020	2021	2022
Germany	2,406,629	2,594,464	2,567,735	2,393,009
USA	18,963,569	24,855,338	27,097,690	32,786,986
Australia	4,629	1,443,632	5,322,259	3,787,527
Belgium	10,388,246	11,769,870	12,531,360	12,037,031
United Arab Emirates	2,753,383	2,493,472	3,245,226	3,419,552
Brazil	8,293,021	8,912,956	8,569,735	8,153,609
China	7,476,758	9,354,969	11,583,289	14,181,171
South Korea	3,160,424	3,942,176	4,135,872	4,769,765
Netherlands	7,295,743	9,047,413	8,402,372	7,556,521
Italy	59,270,250	54,309,611	61,783,942	59,903,914
Spain	17,843,295	19,246,209	19,415,981	18,200,983
Japan	807,502	736,073	605,080	527,146
Canada	4,220,834	3,350,964	4,254,905	3,374,514
Portugal	3,150,448	3,136,446	4,189,698	3,703,793
Russia	58,676,103	56,940,879	59,303,039	78,613,801

Source: Ministry of Transport and Infrastructure

6.1.2. Shipyard

The history of shipyards in our country dates back to the Seljuk period. It is known that Turkish shipyard in Anatolian lands has a history of about nine hundred years, starting with Çaka Bey, who is considered the first Turkish sailor and the founder of Turkish shipping, and today the "shipyard"; It can be defined as coastal structures where the construction, modification, maintenance and repair of passenger, cargo, war, industrial etc. ships and yachts for commercial or touristic purposes are carried out, stagnant water can be supplied with breakwaters, floating pool, technical and social infrastructure, management and storage units

can also be located. It begins with Emir Çaka Bey establishing the first shipyard in 1081 and building the first Turkish navy of 50 pieces.

The most important facility built in the maritime field during the Seljuk period is the Alaiye (Alanya) shipyard. This shipyard, built in 1227, is still standing nearly eight centuries after its construction.

The processes that started with the Gallipoli shipyard in 1390 and the Haliç shipyard in 1455 have continued until these days in accordance with the changing technologies.

When the comparison of the active shipyards and shipbreaking facilities in our country is made for the years 2003 and 2022, the number of shipyards increased from 37 in 2003 to 84 in 2022 with an increase of 127%;

- While there were 37 shipyards and 550,000 DWT project capacity in 2003,
- In 2022, it is seen that 84 shipyards and 4.74 million DWT project capacity has been reached.

Figure 1. Distribution of Active Shipyard and Ship Dismantling Facilities by Province

Source: Ministry of Transport and Infrastructure. (2021), Reaching Accessing Türkiye Report

6.1.3. Ship Recycling Industry

Ship recycling sector: The withdrawal of ships that have completed their economic life from the voyages and the introduction of new ships in their place find their place in a natural technological process that is safer and more environmentally sensitive, has more operational efficiency and reduces maritime risks.

Ship recycling is among the types of industries that protect the environment and is also called "green industry", which plays an active role in maintaining ecological balance. The recycling process is undoubtedly the most "Environmentally Friendly" way of disposal of ships that have

reached the end of their operating life, and almost every material on board the Ship can be recycled or reused as is or reworked.

The ship recycling industry poses serious risks to health and safety while providing positive added value to economies. In this industry, it is necessary to carry out risk analysis and meet safety requirements in operations in order to prevent or at least reduce potential risks.

Since 1976, shipbreaking activities have been carried out only in Aliağa district of Izmir Province in our country, and 22 facilities belonging to private enterprises operate on the 1,300-meter coastline and the annual ship recycling capacity of these facilities is 1,450,000 tons in total. In addition, MKE Shipbreaking Plant is located in the same area.

6.1.4. Marina, Boat Manufacturing and Boatyard

When the Ministry of Culture and Tourism Türkiye Tourism Strategy targets for 2023 to strengthen the marine tourism infrastructure within the framework of the regulations related to the transportation system; Increasing the number of cruise ports in order to include Brand Cities in Cruise Tourism routes, developing public transportation systems and port backfield infrastructure that will provide city connection with existing Piers and Ports, and developing infrastructures for the construction of acceptance facilities and floating collection systems in ports where sewage water, bilge water and solid wastes of yachts will be delivered.

With the targets foreseen for the tourism coastal structures whose construction has been completed by the public and private sectors, it is aimed to meet the capacity needed in addition to the marinas currently operating. In line with this purpose, public facilities are of great importance for the creation of the mandatory infrastructure for yacht tourism with the BOT model and private sector dynamics and for determining the privileged role of our country in the region in terms of tourism. Currently, there are 62 marinas operated by the public and private sectors in our country. Our current offshore mooring capacity is 18,545 yachts and it is aimed to reach a mooring capacity of 30,000 yachts in 2023 with the marinas under construction and planned.

The number of our Boat Manufacturing and Tow Docks (including both in-scope and out-of-scope) increased from 772 in 2015 to 917 facilities in 2022, an increase of 19%.

Table 58. Number of Boat Manufacturing and Boatyard Facilities by Year

Year	Number of Boat Manufacturing and Boatyard Facilities
2015	772
2016	697
2017	724
2018	744
2019	780
2020	815
2021	819
2022	917

Source: Ministry of Transport and Infrastructure
(Note: The relevant statistics include In-scope and out-of-scope Boat Manufacturing and Boatyard data.)

It is aimed to commission the production zones determined in 7 different places by the Ministry of Transport and Infrastructure in order to cluster the boat manufacturing sites that have zoning problems and are scattered.

- İzmir Çaltılıdere Boat Production Place (Preliminary permit agreement has been signed. The renewal of the EIA Not Required article is ongoing. The infrastructure will be made by the Ministry of Transport and Infrastructure.)
- Fethiye Karaot Boat Production and Towing Place (Application has been made by the relevant cooperative to the General Directorate of Protection of Natural Assets for the approval of the master plan.)
- Bodrum Ruins Boat Manufacturing and Boatyard (Pre-permit agreement has been signed and construction permits have been obtained.
- Marmaris Bozburun Boat Manufacturing and Towing Place (After the geological survey report, the proposal plan will be submitted for approval.)
- Manavgat Boat Manufacturing and Towing Place (Preliminary permit agreement was signed and the plan approval process was started in February 2016. The Ministry of Culture and Tourism wants the project to be moved to an alternative area that is not suitable.)
- Bartın Tekkeönü Boat Manufacturing and Towing Place (General Layout Plan has been approved by the Ministry. The process of allocating space has been started through the relevant governorship.)
- Bartın Kurucaşile Boat Manufacturing and Boatyard (It was deemed appropriate to allocate to the cooperative. However, a cooperative has not yet been established.

While 1 Haliç Marina and Complex project was completed until 2003 with the Build-Operate-Transfer model, the number of Yacht Harbors that continue their activities has been increased to 10 by completing the construction today. The contribution of these projects, which are built without using public resources, to the economy is approximately 1 billion TL.

6.1.5. Fishermen's Shelters

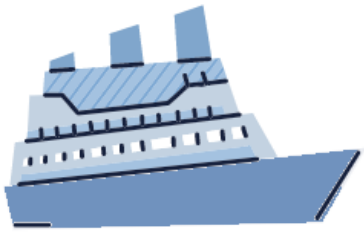
While there were 178 fishing shelters in our country in 2003, this number reached 385.207 fishing shelters were completed in 18 years.

In order to carry out the works and transactions related to the Fishermen's Shelters effectively throughout the country, the Fishermen's Shelters Needs Analysis Project was prepared and included in the State Investment Program for 2022. At the same time, an action plan and necessary legal arrangements will be made for the acquisition of fishermen's shelters in the Marmara and Black Seas to yacht tourism. (Ministry of Culture and Tourism Tourism Strategy of Türkiye 2023)

On the other hand, in order to determine the situation for the fishermen's shelters in our country and to complete the technical deficiencies needed by our fishermen's shelters, the Ministry of Transport and Infrastructure carried out an inventory of the "Fishermen's Shelters Needs Analysis Study".

CHAPTER VII

MARINE TOURISM



7. MARINE TOURISM

Marine Tourism consists of Yachting Tourism, Marina Administrations, Cruise Tourism and Ferryboat Administrations, Underwater Diving and Water Sports.

Vocational activities for tourism purposes carried out with various sea and water vehicles for excursion, sports and entertainment purposes in sea and inland waters are defined as "MARINE TOURISM".

Until today, developments in the MarineTourism sector have increased and diversified the opportunities for people to benefit from the sea. Yachting, which was considered as a sport, sea-oriented entertainment and recreation tool for an elite group, has become a part of international tourism movements.

The Mediterranean basin, which is one of the important regions where world yacht tourism is concentrated, increases its attractiveness for both commercial and amateur yachtsmen day by day.

These developments in marine tourism have also positively affected our country, which has the cleanest and most beautiful coasts of the Mediterranean, with traces of history and unspoiled coves. Although yachting, which started as day trips with small boats or short boarding trips, has a long history compared to other types of tourism in Türkiye, it has become a part of mass tourism in the last twenty years and has shown a rapid development as a fleet with more than a thousand yachts and bed capacity.

Our Blue Voyage fleet, which is formed by our wooden yachts (gulets) built with traditional Mediterranean boat building methods, is the first and only in the world, and the Blue Voyage has become a unique tourism branch with a brand value that our country has given to world tourism.

Table 59. Yachting Companies Licenced by the Ministry of Culture and Tourism

Years	Number of Business			Number of Yacht			Number of Bed		
	Domestic	Foreign	Total	Domestic	Foreign	Total	Domestic	Foreign	Total
2002	96	10	106	725	369	1,094	6,774	2,457	9,231
2003	97	9	106	725	333	1,058	6,905	2,329	9,234
2004	83	8	91	699	294	993	6,377	2,110	8,487
2005	76	10	86	723	345	1,068	6,394	2,486	8,880
2006	60	11	71	666	395	1,061	5,398	2,764	8,162
2007	58	11	69	845	381	1,226	6,764	2,748	9,512
2008	61	15	76	990	431	1,421	8,051	3,116	11,167
2009	53	18	71	943	433	1,376	7,443	3,191	10,634
2010	59	17	76	521	438	959	4,851	3,24	8,091
2011	308	18	326	992	868	1,860	10,292	7,199	17,491
2012	944	10	954	1,246	829	2,075	13,203	6,567	19,770
2013	857	26	883	1,529	871	2,400	15,312	6,911	22,223
2014	857	27	884	1,529	838	2,367	15,312	6,674	21,986
2015	857	27	884	1,529	826	2,355	15,312	6,626	21,938
2016	1,140	24	1,167	1,537	608	2,145	15,994	5,100	21,094
2017	1,150	20	1,170	1,557	312	1,869	16,153	2,532	18,658
2018	1,159	18	1,177	1,572	251	1,823	16,150	2,043	18,193
2019	1,344	11	1,355	1,819	160	1,979	17,917	1,219	19,136
2020	1,450	0	1,450	1,946	0	1,946	18,550	0	18,550
2021	1,979	0	1,979	2,504	0	2,504	21,242	0	21,242
2022	2,221	0	2,221	2,745	0	2,745	23,055	0	23,055

Source: Ministry of Culter & Tourism

Marine tourism service trade, which includes yacht investments and operations, marina investments and operations, scuba diving activities for sportive purposes, water sports, amateur maritime activities and daily excursions with sea vehicles, increases its capacity in the international arena day by day.

Marine tourism, which started to develop in our country after the 60s, has an important 20% place in the general tourism sector with its social and economic contribution as well as its contribution to promotional activities and the foreign exchange input it provides.

The most prominent success of the Turkish Chamber of Shipping has become to define and to establish the concept of “Maritime Tourism” in the Shipping Sector and also at various platforms.

7.1. Yacht Tourism

Yacht building industry in Türkiye, is located mostly in Istanbul region and also in some parts of the Black Sea, Marmara Sea, Aegean Sea and the Mediterranean Region. The yachts, which are built in Aegean and the Mediterranean regions, are usually exported to Germany and Greece.

Table 60. Marine Tourisim Vesells With Tourism Administration Certificate (2023)

Marine Tourism Vessels	Number of Business	Number of Yacht	Number of Beds
Business Tourism Documantation of Turkish Flag Yacht	2,220	2,744	23,029
Investment Tourism Documantation of Turkish Flag Yacht	1	1	26
Grand Total	**2,221**	**2,745**	**23,055**

Marine Tourism Vessels	Number of Business	Number of Vessels	Passenger Capacity
Business Tourism Documantation of One a Day Trip	2,792	2,807	158,158

Marine Tourism Vessels	Number of Business	Number of Vessels	Passenger Capacity (Summer/Winter)
Business Tourism Documantation of Restaurant Ship	38	38	17,076/12,588

Source: Ministry of Culter & Tourism (01.03.20223)

7.2. Blue Voyage

“Blue Voyage" is the most authentic mode of travel of Türkiye. The Gullet Tourism, other than bareboat concept, is a travel and vacation type that is derived from Blue Voyage tradition and peculiar to Türkiye, which can be considered fully Turkish style. This is a type of yacht tourism performed with the vessels having permanent crew or multi-property yachts, which became famous at the classical, ultra-luxury or international races and then adapted to tourism, or in some exceptional cases, performed with yachts adapted from classical design basically.

Almost 75-80% of the yacht fleet consists of traditional wooden or classical vessels sailing on the waters of Aegean and The Mediterranean for hundreds of years. The blue voyage has made an evolution in terms of boat building technologies by adapting tradition to tourism.

Since the 60’s Türkiye protects sustain in the building of these traditional boats in many areas on our coasts.

In the 60’s the sponge fisherman used to use the same boats for fishing purposes. The first blue cruises that were done by the Fisherman of Halicarnassus and his friends, the esteemed intellectuals of the time, went on cruises where there was no electricity no bathroom and kitchen

It is known we have the famous ‘Blue Cruises’ in our country. This is a concept that began in the 60’s with our famous story teller and philosopher / author ‘Fisherman of Halicarnassus’ Sailing with a crew on the turquoise waters of Türkiye would be a memorable experience. Together with 3 or 4 crew members, blue cruises are proven to be the most comfortable and joy full way to explore our bays.

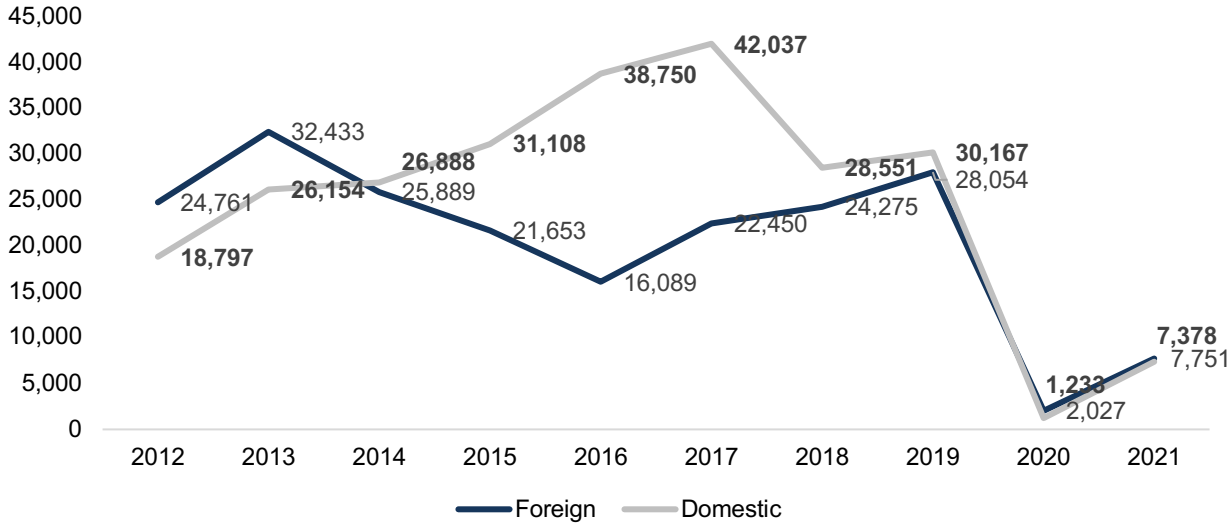
Blue Voyage Routes on the Aegean Routes

Blue Voyage Routes on the Mediterraean Routes

The route of the Blue Voyage from Bodrum down to Antalya covers and area of 264 sea miles. This route is shortened or lengthened according to the wish of the guests from aboard.

The best period to join the Blue Voyage is between April and November.

Graph 51. Distribution of the Yachtsmen and the Crew Members of the Flag Q Yacths (for Commercial + Private use) Arrived in Turkish Ports by Years



Source: Ministry of Transport and Infrastructure

Table 61. Distribution of the Yachtsmen and the Crew Members of the Flag Q Yachts Arrived in Turkish Ports by their Nationalities and Years 2021

Nationality	Yachtsmen		Crew Member		Total	
	Commercial	Private	Commercial	Private	Commercial	Private
Germany	108	127	57	83	165	210
Austria	15	58	6	14	21	72
Belgium	13	23	11	13	24	36
Denmark	9	8	6	13	15	21
Finland	3	0	1	5	4	5
France	88	108	110	71	198	179
Netherlands	17	32	22	30	39	62
U.Kingdom	84	120	414	265	498	385
Ireland	7	9	26	17	33	26
Spain	52	51	37	20	89	71
Sweden	10	19	17	18	27	37
Italy	82	75	141	109	223	184
Luxembourg	3	4	3	0	6	4
Portugal	3	18	9	8	12	26
Greece	187	234	260	129	447	363
Czech Rep.	6	0	1	1	7	1
Switzerland	41	53	12	21	53	74
Iceland	0	0	0	0	0	0
Hungary	15	6	4	0	19	6
Norway	1	6	1	4	2	10
U.S.A	126	89	43	31	169	120
Australia	9	28	41	42	50	70
Japan	2	1	1	0	3	1
Canada	43	28	16	15	59	43
Mexico	0	7	6	13	6	20
New Zealand	0	3	44	15	44	18
Serbia	6	5	17	13	23	18
Malta	9	6	4	0	13	6
Israel	172	54	21	14	193	68
Others	586	582	1270	735	1856	1317
T. Foreign	**1697**	**1754**	**2601**	**1699**	**4298**	**3453**
Türkiye	1620	1478	2467	1813	4087	3291
Grand Total	**3317**	**3232**	**5068**	**3512**	**8385**	**6744**

Source: Ministery of Culture &Tourism

Five Blue Voyage Routes in Anatolia

Bodrum-Gökova

The most important stop on this route, which starts in the coves near Bodrum, is the island of Kara Ada. The island is known for its therapeutic hot water springs, and it is possible to have mud bath in its natural pools. Mersincik Harbour, in the Gulf of Gökova, is ideal for swimming—its waters are very clear. The coves of Büyük and Küçük Çatı present alternative options. Tuzla Cove, which cuts roughly three miles eastward into Koyun Point, resembles a lake, while Karacasöğüt is a well-protected cove surrounded by pine-forested hills. İngiliz Harbor is famous for its sunset. Sedir Island, one of the greatest spots on the route, is known for its deserted beaches. The island is peppered with the ruins of the ancient town of Kedreai. It is said that the Egyptian princess Cleopatra bathed in the small cove in the northwest of this olive tree-covered island. At dusk, the boats stop for the night in Akbük Harbor, whose sea is as clear as an aquarium. The next morning, after laying anchor in Çamaltı Cove and hiking over land for roughly half an hour, one reaches the ancient ruins of Keramos. Later, lunch is had at Çökertme Cove. After following a route that visits.

Orak Island, Çiftlik, and Bitez, the ships return to Bodrum.

Places: Bodrum in Türkiye

The Blue Voyage can be taken as a day trip or with accommodation. The cabin charter tours range from three to eight days. One week as the ideal duration for a Blue Voyage.

Datça-Bozburun

The boats take off from Datça Harbor and follow the path of the coves buried like so many treasures in the peninsula. The boat moves on to the Gulf of Hisarönü. Dişlice Island, at the entrance of Bencik Harbor, conceals small beaches on its shores. Orhaniye, our first stop on the Bozburun Peninsula, shines like a blue bead amid lush green forests. The walls on the island located in the middle of the cove were used as watchtowers during the Byzantine era. Kızkumu, one of the most favored beaches in the region, is a shallow sandbar that stretches out to the sea

like an extended tongue. Selimiye, which boats reach after a dance with blue and green, is a small fishermen's village filled with seafood restaurants. After Bozburun-the center of the peninsula-the boats pass by Simi Island and reach Bozukkale. There are the ruins of the ancient city of Loryma in this cove, which is surrounded by steep hills. The next stop is Serçe Harbor, which has many sunken ships off its shores. After here, optionally, a route that visits Çiftlik, Kadırga, and Turunç respectively can be followed.
All Blue Voyage vessels that hold permits to carry passengers for touristic purposes must comply to standards set by the Ministry of Cultur and Tourism. No voyages take place in weather and sea conditions seen as unfit by the Port Authorities, Coast Guard, and Meteorological Service.

Marmaris-Fethiye

Starting in Marmaris, which is one of the most important Blue Voyage centers in Anatolia, this route first stops by Ekincik Cove. İztuzu Beach-one of the most important habitats of the loggerhead (carettacaretta) sea turtle-is the port of entrance to Dalyan, which resembles a giant marine labyrinth. By boarding smaller boats here, you can go all the way out to Lake Köyceğiz.

Places: Göcek in Türkiye

The Kaunus Rock Tombs, with their marvelous panorama, are among the places worth seeing in the area. Dişibilmez Point and Manastır Point are two important stops before Göcek. It is known that ships were built on Tersane ("Shipyard") Island, located off the shores of Göcek, during the Byzantine era. Scattered among the olive trees of the shore of this bowl-shaped island are numerous ruins of houses. After such a pleasant day, the boats stop in Göcek for the night. The next day, the boats set out to the Ölüdeniz (the Blue Lagoon), gliding on the Mediterranean.It is forbidden to lay anchor in Ölüdeniz, a lagoon that resembles a giant lake with its clear, tranquil waters. It is possible to moor off its shores and go to the beach via boat. On Gemiler ("Ships") Island in the Gulf of Fethiye, there are ruins of an ancient church from the Byzantine era.

Capacity ranges from eight to thirty-six on cabin charter tours.

Antalya-Kaş

This route, which has received great interest in recent years, joins two important Mediterranean harbors. The Yediburunlar region, which falls between the two places, is unaccommodating of

overnight stays due to generally having choppy seas. The true privilege of this route is that it includes the area of Kekova, which can be considered the most beautiful place along the Antalya-Kaş route. Continuing off the shores of Üçağız, which is studded with the ruins of the ancient harbor disguised amid carob trees, the voyage enters a brand-new, dreamlike realm in the Sunken City: ancient avenues shimmering beneath clear, turquoise-colored waters; elegant columns; ruins of buildings; stairs disappearing into the depths beneath; and fields of amphorae… The boats are floating above a mysterious Lycian town that is thought to have been plunged into the seas due to an earthquake in the second century BC. The journey continues, passing by rock tombs, monks' cells, and tiny coves, until Simena. The first long leg of the journey from here has a view of Kastelorizo (Meis) Island.

Places: Karolas-Kaş in Antalya

Antalya-Finike

The coves on this route promise a lovely voyage along which natural and historical beauties are intertwined. Starting in Antalya, which is one of the most important centers of tourism in the Mediterranean, the journey stops by a modern Anatolian marina in Kemer.

Places: Kaputaj Beach in Antalya

The ancient Lycian town of Phaselis is reached right after Asar Point. Established as a triple-harbored seaside town by sailors from Rhodes in the seventh century BC, Phaselis was famed in Roman times-its golden age-for its high-quality perfumes. As you wander the ancient streets connecting the harbors, your senses are delighted by a combination of the sound of the surf and the scent of the pines. Just a little ahead are Çıralı, Olimpos Beach, and Yanartaş, which are quite memorably beautiful. The name of the piece of land stretching northward from Taşlık Point is Çavuş Harbor. To the west of the bay, which is surrounded by green hills, there is a beach, and immediately behind it a plain. Finike, a protected harbor, is four miles northeast of Bunda Point.

Blue Voyage tours in Anatolia start in May and run through the end of October. Demand is at its most concentrated in the high season of July and August.

7.3. Statistics of the Yachts & Capacity of the Registered Yachting Facilities

Table 62. Marine Tourism Facility

Mooring Capacity Number of Facility	Number Of Facility	Yacht Capacity		
		Sea	Land	Total
Business Tourism Documantation of Yacht Harbour	28	9,308	3,157	12,465
Business Tourism DocumAntation of Yacht Slipway	6	40	859	899
Investment Tourism Documantation of Yacht Harbour	6	1,842	438	2,28
Grand Total	40	11,190	4,454	15,644

Source: Ministery of Culture &Tourism

Most of Türkiye's marinas are located on the Southern Aegean and Mediterranean coasts. These well-equipped ports contain all the services and provisions any yacht would require. Table below shows the yacht marinas registered by the Ministry of Culture and Tourism.

Table 63. Marine Tourisim Facility with Tourism Administration Certificate (2022)

NO	Port Name	City of	Capacity	
			At Sea	On Shore
1	Setur Kuşadası Yacht Port	Kuşadası/AYDIN	310	-
2	Ataköy Yacht Port	Ataköy/İSTANBUL	1,040	60
3	G-Marina Kemer	Kemer/ANTALYA	150	150
4	Marmaris Yacht Port	Marmaris/MUĞLA	676	122
5	Club Marinas	Göcek/MUĞLA	195	-
6	Setur Antalya Marinas	ANTALYA	200	150
7	Kumlubükü Yacht Club	Marmaris/MUĞLA	10	-
8	D-MarinTurgutreis Yacht Port	Bodrum/MUĞLA	455	100
9	Ece Marina	Fethiye/MUĞLA	230	-
10	Milta Bodrum Yacht Port	Bodrum/MUĞLA	425	50
11	My Marina Ekincik	Marmaris/MUĞLA	67	15
12	D-Marin Didim Marinas	Didim/AYDIN	576	600
13	D-Marin Port Göcek Marinas	Fethiye/MUĞLA	379	-
14	Alaçatı Yat limanı	Çeşme/İZMİR	260	100
15	Marintürk Göcek Village Port	Göcek-Fethiye/MUĞLA	116	200
16	SETUR Yalova Yacht Port	YALOVA	240	80
17	Alanya Yacht Port	Alanya/ANTALYA	287	160
18	Teos Marinas	Seferihisar/İZMİR	480	80
19	Port Iasos	Milas/MUĞLA	100	-
20	Skopea Marinas	Fethiye/MUĞLA	80	-
21	Marmaris Adaköy Marinas	Marmaris/MUĞLA	33	-
22	I&C Çeşme Yacht Port	Çeşme/İZMİR	377	100
23	West İstanbul Marinas	Beylikdüzü/İSTANBUL	600	370
24	SETUR Ayvalık Marinas	Ayvalık/BALIKESİR	200	150
25	Mersin Yacht Port	MERSİN	500	500
26	Güllük Yat Marin	Milas/MUĞLA	270	-
27	Gökova Ören Marinas	Milas/MUĞLA	416	130
28	Yalıkavak Marinas	Bodrum/MUĞLA	710	40
Total			**9,382**	**3,157**
General Total			**12,539**	

Source: Ministery of Culture &Tourism

Table 64. Business Tourism Documantaton of Yacht Slipway

NO	Port Name	City of	Capacity	
			At Sea	On Shore
1	Yat Lift Yacht Slipwa	Bodrum/MUĞLA		400
2	Ağanlar Yacht Slipway	Bodrum/MUĞLA	-	200
3	Neta Marinas Yacht Slipway	Bodrum/MUĞLA		21
4	Ege Yacht Slipway	Milas/MUĞLA		50
5	Albatros Yacht Slipway	Marmaris/MUĞLA	40	48
Total			**40**	**719**
General Total			**759**	

Source: Ministery of Culture &Tourism

Table 65. Yacht Harbour Investment Tourism Documantation

NO	Port Name	City of	Capacity	
			At Sea	On Shore
1	Meersea Körmen Yacht Port	Datça/MUĞLA	246	56
2	Ataport Yacht Port	Zeytinburnu/İSTANBUL	1,000	100
3	Mandalya Dock	Milas/MUĞLA	50	-
4	Tümsağ Kumkuyu Yacht Port	Erdemli/MERSİN	200	200
Total			**1,496**	**356**
General Total			**1,852**	

Source: Ministery of Culture &Tourism

7.4. Cruise Tourism in Türkiye

The cruise industry is a major player in the global tourism industry, and it continues to grow year after year. In this post, we'll take a look at some of the most interesting facts and figures about the cruise industry.

The global cruise market size was valued at USD 7.25 billion in 2021 and is expected to grow of 11.0% from 2022 to 2028. 4.8 million passengers took ocean cruises in 2022, with 1.75 million of those passengers visiting the Caribbean, the Bahamas, and Bermuda, making it the most popular destination. The cruise ship industry in the US saw a 76% increase in employment in 2021 after a sharp decrease in 2020 due to the pandemic, with 15,000 employees in 2021 and a forecast of 23,000 by 2022.

As a result of the COVID-19 pandemic, the market experienced a decline in passenger numbers. As per the Cruise Lines International Association, in 2020, worldwide passenger volume decreased by 80.0%. Due to the eruption of the COVID-19 pandemic, the majority of the cruises were stranded at various locations and other cruises were canceled. However, the industry is anticipated to witness a slow and healthy growth rate owing to the resumed activities and relaxed restrictions. In the wake of the pandemic, many holidaymakers are looking for small vacations as a getaway.

A vacation trip for multiple days, arranged on the cruise ship in the large inland waters or sea while visiting various destinations for tourism, following a particular route is known as a cruise. The focus in this sort of voyage is basically on staying aboard the ship along with eye-catching destinations for the tourists. The growing industry of hospitality & tourism is contributing to the market growth, thus driving the global cruises market.

Increasing leisure trips and voyages taken by generation Z along with the growing preference of a high population to live a luxury life is contributing to the market growth during the forecast period. The rising popularity of the river cruises is likely to drive the global cruises market. River cruises offer attractive packages that travel inside the countries and not just the coastal areas. These types of river cruises are becoming increasingly popular in European countries.

Europe was the second-largest in terms of revenue share and accounted for over 25.0% of the share in 2021.

Global Cruise Market Expected To Be Worth $15 Billion by 2028

The Mediterranean Sea has numerous advantages over other cruising areas, with its diversity of cultures, people, languages and history. There are many ports ideally suited to cruise passengers, with something to interest everyone, in most cases situated close to where the Cruise ship docks.

Nowhere else can such a variety of culture and history be found in such a relatively small area.

While the weather from Spring to Autumn is almost invariably ideal, even in the winter months the weather is generally very mild. Some observers feel that within a couple of years, the Mediterranean will become a year-round cruise destination. Indeed, the advantages of cruising the area outside the peak periods are certainly attractive, with the prospect of fewer crowds visiting the must-see attractions.

In a nutshell, there is nowhere else on earth where one can cruise to so many different countries within a short period of time and to sample as many flavours, cultures and retrace the footsteps of history as one can in the Mediterranean Sea.

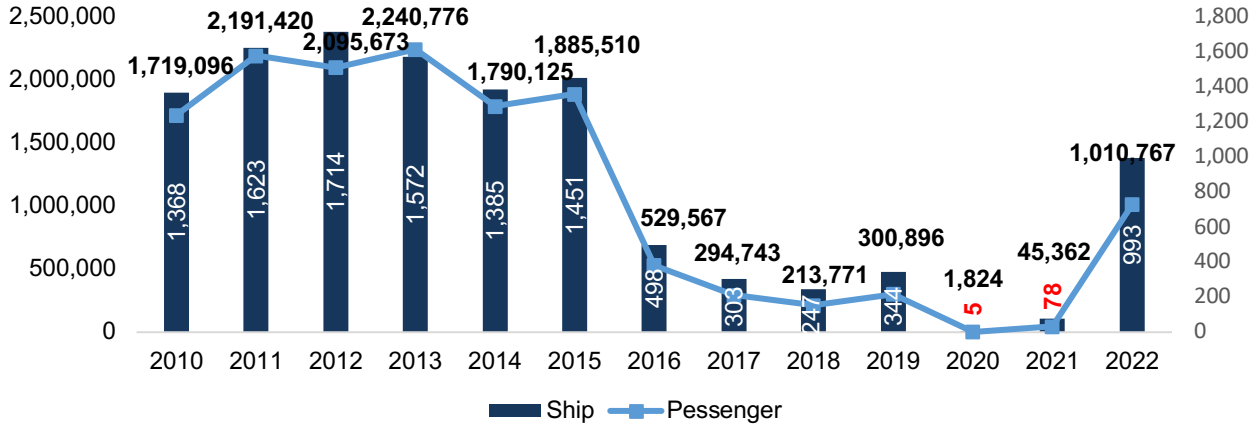
Luckily for cruise passengers, the choice and range of ships on which to so travel are getting wider each year

Every 1% increase in first-time cruise travelers (international travelers who have never cruised and are open to cruise) is equivalent to 4 million newto-cruise travelers. Source: Analysis of CLIA Passenger Data, 2019 – 2021, CLIA Cruise Forecast /Tourism Economics (Dec. 2022); and UNWTO international tourist arrivals data

Cruise Tourism, which is one of the new industries in shipping sector, has emerged as a result of the rising demands of people for cruising with more modern ships. Worldcruise tourism has been developing with a great acceleration with more ships and increasing capacities. Cruise industry today offers a market of 15 Billion USD. Türkiye is located in a suitable region for crusing sector, which is the Mediterranean Basin.

World Cruise Companies Arrival-Departure Port of Istanbul, Kuşadası, Bodrum, İzmir and Çeşme (Turn-Around Port) as reported by declaring AI Development Program.

Graph 52. Statistics of Cruises and Passengers Arrived at Turkish Ports Between 2010-2022



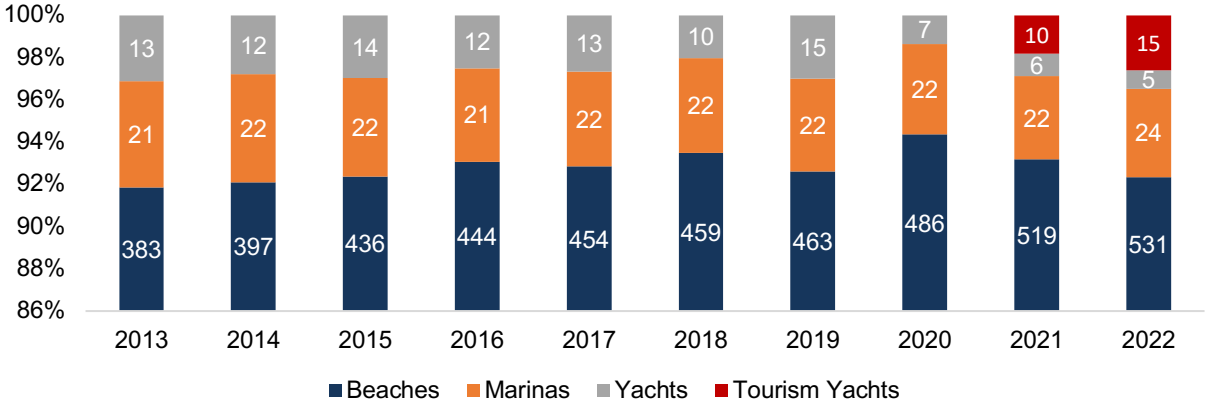
Source: Ministery of Culture &Tourism

In order to open İstanbul, one of the most important touristic centers of Türkiye, to Cruise and Mega Yacht Tourism Services, great effort sare being exerted to develop the ports of Galataport, Yenikapı and Ataköy Marinas.

7.5. Blue Flag Compaign

Blue Flag Programme is owned and run by the independent non-profit organisation Foundation for Environmental Education (FEE). One national FEE member is responsible for the implementation of programme, which is TURCEV (Foundation for Environmental Education in Türkiye) in Türkiye.

Figure 2. Blue Flag Data (2022)



Source: Foundation for Environmental Education of Türkiye

Nominees are evaluated by a national, then a European jury, after which the successful ones are awarded the Blue Flag for one year. The sea-water analysis is performed every 15 days during the high season by the local department of the Ministry of Health, and funded by the Ministry of Culture and Tourism, and taking into account the physical, pH and microbiological parameters[3].

[3] Source: Ministry of Culture and Tourism

7.6. Underwater Diving

In the seas of Türkiye, divers can discover a fascinating submerged world, from underwater caverns to sunken ships and even the remains of ancient cities. The only areas prohibited to diving are military zones and areas under protection. Diving for scientific research is also prohibited.

Above the water and diving off the coast of our country engaged in tourism business we have around 800 certified and authorized.

7.7. Equipped Diving Rules

Forbidden Zones

All kinds of diving excluding scientific studies in military forbidden zones as well as regions in which there are Cultural and Natural Wealth Required to be protected underwater according to Official Gazette dated 19.08.1989 and numbered 20257 issuing 35th article of Decision of Board of Ministers, according to Cultural and Natural Wealth Protection Law Number 863.

Certificate

Equipped divers for sportive purposes should have the proficiency certificate (diving card) issued by Underwater Sports Federation. But certificates issued by educational organizations under international standards, are also valid. These certificates can be upgraded to proficiency certificate (diving card) by applying to the Federation. Sportive diving authorizations, technical specifications and certificates are issued in compliance with the principles determined and accepted by Ministry of Youth and Sports, Underwater Sports Federation. As regards to sportive diving for foreign divers, they should be a member of International Underwater Sports Federation or national organizations or have a certificate issued by authorized organizations or institutions of their countries.

Responsibility

Diving and life security of the divers belong to divers themselves, but during training all the responsibility is with the lecturer. When diving in Türkiye, taking guide skin diver is obligatory. Foreign divers should take guide skin diver during diving. Also, protection of cultural and natural wealth, maintaining of property and life security of divers during diving, are under the responsibility and obligation of guide skin diver. However, existing problems and personal mistakes of divers who violate rules is not within the scope of responsibility of guide skin diver.

Material

There is no limit for equipment during sportive diving. Balance vest (life vest, BC), tube pressure monitor, depth monitor and time hour usage is obligatory. Usage of lifting balloon or similar materials is forbidden.

Decompressed dives are completely forbidden. High pressurized tube filling compressor in land or in ships, which requires permission from corresponding authorities, can be present during diving. Agency, club, establishment, hotel, holiday village, school etc. who organize diving, as

well as ships should provide first aid material in stock. Underwater photographing and video cameras and all kinds of related materials can be used during diving.

Material Maintenance

Tourism agencies, yacht operators, organizations and institutions as well as underwater clubs organizing sportive diving should perform periodic test and maintenance of diving materials (such as tube regulator, balance vest) used and owned by skin divers. These tests can be performed at civil skin-diving firms, agencies or organizations authorized by Ministry of Industry and Commerce.

Ships To Be Used During Dives

During underwater diving, using Turkish flag ships is a must. However, if permission is taken for foreign groups who wish to dive from their own boats, they can be used as well.

Diving Permission

Equipped sportive diving is subject to permission. City Tourism Directorate or authorized body should be informed by clubs, organizations or institutions in order to organize diving to regions excluding forbidden zones. This information is submitted to Regional Coast Guard by correspondent authority.

All kinds of equipped sportive diving are subject to permission for foreign divers. Authorities who issue these permissions are City Tourism Directorate or authorized bodies. One copy of permission forms issued is submitted to Harbor Master and one copy is submitted to Regional Coast Guard by the issuing authority. One copy of the permission should be kept by organizers at all times and should be shown to authorities during controls. Taking permission and submitting information is not obligatory during training and diving with double person system.

CHAPTER VIII

TURKISH FISHING SECTOR

8. TURKISH FISHING SECTOR

8.1. Introduction

As the worl's population increases, the limited availability of protein sources in human nutrition has led o a focus on aquatic products. Fish and other aquatic products are harvested and cultivated from water sources. The increasing industrialization and technological advancements have led to the gradual pollution of oceans and inland waters, resulting in a decrase in the utilization of these resources. For this reason, there has recently been a significant increase in the importance and interest given to aquaculture both in our country and in the world (Yonar, 2008; Akyıldız, 2013)

Our country is located within a geography surrounded by seas that are determined by hydrography (continental or island boundaries) and hydrology (temperature, salinity, currents) on three sides. Our seas have a total coastline length of 8,333 km. Our country, by its location, has the characteristic of being a natural bridge between Europe, Asia and the Middle East countries. The fact that three sides of our country are surrounded by seas and nourished by many rivers allows our seas to have different characteristics in terms of temperature and salinity, and ensures high marine biodiversity, species numbers, and population.

Türkiye is one of the most important fishing countries in the Mediterranean with its marine and inland fisheries. Its proximity to the Middle East and Europe is a strategic advantage for Türkiye. These characteristics increase the importance of sustainable policies for our seas in terms of strategic location in international waters and the diversity of product varieties of various pelagic and demersal species in our inland waters. Steps taken with different countries in the fishing sector, advancing equipment used in fishing boats with developing industry, international import and export initiatives in aquatic products contribute to our country's economy and increase our importance in the world.

In a report published by the Organization for Economic Cooperation and Development (OECD) in 2016, it was noted that aquaculture production showed the fastest growth among agricultural products. Similarly, in the 2020 report by the United Nations Food and Agriculture Organization (FAO), it was stated that the aquaculture sector has shown the most development in the agricultural sector in recent years (Department of Agricultural Economy and Policy Research, 2022).

While the production of aquaculture products was mostly done by hunting in the past, the fact that the production made by hunting does not fully meet the needs today has led to the development of aquaculture. In recent years, total production in our marine and inland waters has been the fastest growing sector among all food productions. According to the data of the Turkish Statistical Institute (Turkstat) in the last fishing season, the amount of aquaculture production in 2021 was 295,018 tons at sea and 33,140 tons in inland waters, totaling 328,158 tons. Aquaculture production is 335,644 tons at sea, 136,042 tons in inland waters and 471,686 tons in total. Türkiye's total aquaculture production was 799,844 tons.

Population growth, overfishing, pollution of the seas, and environmental effects are affecting population dynamics and causing rapid depletion of fish resources in the long run. The desire of people to access high-nutrient products has resulted in product demands that have continued throughout human history. The high volume of domestic and foreign trade in the fisheries sector and the utilization of unused water resources for economic gain are other factors that trigger an increase in fish production worldwide. Seas and numerous rivers, lakes, ponds, and reservoirs offer vast opportunities for fisheries. Aquaculture continues to develop worldwide. Technological advances, the development of solutions to fishermen's problems, support from public institutions, NGO's and universities contribute to the sector's progress and rapid development.

One of the important issues we need to mention is the effect of animal proteins on human health. The richness of fish meat in taste and vitamin, mineral, and omega-3 fatty acids is due to the latter. It contains vitamins A, D, B, K, calcium, phosphorus, and many other rich minerals.

In developed and developing countries, the advancement of technology in fishing vessels has led to problems that affect population dynamics due to overfishing. In order to protect our water resources, our seas and to ensure sustainability, the fishing pressure in the seas must be reduced and the fish stock should increase in the future, considering that population dynamics are constantly changing. Our fishery resources should be effectively and efficiently utilized and managed.

The report on the Maritime Sector covers the current situation of fisheries in the world and Türkiye, the production of fish through fishing and aquaculture, foreign trade, and the state of the fisheries sector.

8.2. Current Status of Aquatic Products

8.2.1. Aquaculture Production in Türkiye

The geographical location and natural resources of Türkiye offer suitable opportunities for the production of aquatic products through fishing and aquaculture. Türkiye is surrounded by seas with different characteristics and production potentials on three sides: the Black Sea, the Aegean, and the Mediterranean. Our country also has the entire Marmara Sea, an inland sea. There are many rivers in 25 river basins, 200 natural lakes, 318 dam lakes, and about 1,300 ponds (Eleventh Development Plan 2019-2023).

Türkiye is both an importer and exporter of aquatic products and has a positive trade balance in this area. The production quantity and value of aquatic products in 2021 were 328,158 tons and 3,614,772,762 TL for fishing, and 471,686 tons and 18,482,440,710 TL for aquaculture, respectively. The total quantity and value were 799,844 tons and 22,097,213,472 TL (Turkstat; DGFA).

According to provisional data from TSI, Türkiye's aquatic product imports and exports in 2021 were 238,732 tons and 12,405,903,730 TL in value for exports, and 104,708 tons and 1,962,837,828 TL in value for imports (Turkstat; DGFA).

Aquaculture production increased by 1.8% in 2021 compared to the previous year, reaching 799,851 tons. Of this production, 32.8% were marine fish obtained through fishing, 4.1% were freshwater fish obtained through fishing, and 59% were obtained through aquaculture (Turkstat). Aquatic product fishing decreased by 9.9% in 2021. Total production obtained through fishing was 328,165 tons, while production obtained through aquaculture was 471,686 tons. Marine fishing decreased by 10.9% compared to the previous year, while freshwater fishing increased by 0.1% (Turkstat).

Table 66. Aquaculture Production in Türkiye (Tonnes)

Years	Capture Production (tonnes)			Aquaculture Production (tonnes)			Total (Tonnes)
	Sea	Freshwater	Total	Sea	Freshwater	Total	
2015	397,731	34,176	431,907	138,879	101,455	240,334	672,241
2016	301,464	33,856	335,320	151,794	101,601	253,395	588,715
2017	322,173	32,145	354,318	172,492	104,010	276,502	630,820
2018	283,955	30,139	314,094	209,370	105,167	314,537	628,631
2019	431,572	31,596	463,168	256,930	116,426	373,356	836,524
2020	331,281	33,119	364,400	293,175	128,236	421,411	785,811
2021	295,018	33,140	328,158	335,644	136,042	471,686	799,844

Source: Turkish Statistical Institute, Directorate General of Fisheries and Aquaculture.

Production of aquatic products in Türkiye is carried out through fishing and aquaculture, and the production is obtained from both marine and inland waters. The highest increase rate in the last seven years occurred in 2019 with a total production of 836,524 tons. While an annual increase is observed in aquaculture production in our seas and inland waters, fishing production shows fluctuations from year to year.

8.2.2. Fisheries

Fisheries in our country are carried out through fishing and aquaculture in seas and inland waters. The total amount of fishery in 2015 in seas and inland waters was 431,907 tons, while this total was measured as 328,158 tons in 2021. It is observed that the values of fisheries in seas and inland waters varied from year to year between 2015 and 2021 and decreased gradually over the years. It is observed that the highest production was achieved both in the sea and inland waters in 2019. The amount of the most caught sea fish was 262,297 tons. The least caught sea fish in the last seven years was 222,024 tons in 2018.

Table 67. Production Quantity of Fishery Products

Years	Sea (Tonnes)			Freshwater (Tonnes)			Total
	Fishes	Other	Total	Fishes	Other	Total	
2015	345,765	51,966	397,731	32,376	1,800	34,176	431,907
2016	263,725	37,739	301,464	31,509	2,347	33,856	335,320
2017	269,676	52,496	322,173	29,396	2,749	32,145	354,318
2018	222,024	61,931	283,955	27,607	2,532	30,139	314,094
2019	374,726	56,846	431,572	28,618	2,978	31,596	463,168
2020	291,910	39,371	331,281	30,150	2,969	33,119	364,400
2021	262,290	32,728	295,018	31,248	1,972	33,140	328,158

Source: Turkish Statistical Institute, Directorate General of Fisheries and Aquaculture, 2022.

The most commonly caught pelagic fish in fishing are anchovy, sardine, horse mackerel, bonito, bluefish, and brisling. When the distribution of caught fish by species is examined, anchovy is the most caught fish with a quantity of 151,598 tons. Anchovy fish was followed by sprat with 28 thousand 41 tons and mackerel with 19 thousand 590 tons (Table 68).

According to data obtained from Turkstat, Türkiye has the largest share in Black Sea fishery. Of the 151,598 tons of anchovy caught in 2021, only 99,352 tons were caught in the Eastern Black Sea. The amount of anchovy caught in the Western Black Sea was 35,928 tons. While 212,253 tons of anchovy were caught in the Eastern Black Sea in 2019, fluctuations in anchovy fishing have been observed over the years.

Table 68. Production Amounts (Tons) of the Most Commonly Caught Pelagic Fish Species

Years	Anchovy	Sardine	Horse Mackerel*	Bonito	Bluefish	Brisling
2015	193,492	16,693	16,664	4,573	4,136	76,996
2016	102,595	18,162	11,148	39,460	9,574	50,225
2017	158,094	23,426	12,985	7,578	1,936	33,950
2018	96,452	18,854	20,678	30,920	5,767	20,057
2019	262,544	19,119	19,505	1,578	1,214	38,078
2020	171,253	21,265	12,349	22,743	3,722	26,804
2021	151,598	15,800	24,006	2,595	5,804	28,041

Source: Directorate General of Fisheries and Aquaculture, 2022.

According to the data obtained from the General Directorate of Fisheries and Aquaculture, as of the end of 2021, the number of licensed fishing vessels for fishing of aquatic products is 18,476 in total, with 15,291 in seas and 3,185 in inland waters. Among the vessels in our seas, 891 are between 10-12 meters and 12,779 are small-scale fishing vessels under 10 meters. The number of licensed fishing vessels in inland waters is 3,185 (Table 69).

Table 69. Size Distribution of Fishing Boats (2021) (Number of Boats)

Field of Activity	Height Group (ft)							Total
	0-4.9	5-7.9	8-9.9	10-11.9	12-19.9	20-29.9	30+	
Sea	679	8,693	3,407	891	867	466	288	15,291
Freshwater	398	2,312	391	22	62	0	0	3,185
Total	**1,077**	**11,005**	**3,798**	**913**	**929**	**466**	**288**	**18,476**

Source: Directorate General of Fisheries and Aquaculture, 2022.

The most commonly caught demersal marine fish are the species of haddock, hake, mullet, red mullet, and turbot. In demersal fishery, the annual variation is less than that of pelagic fishery. Among demersal species, the catch of whiting has shown the most significant variation, with

annual catch ranging from 8.2 to 13.1 thousand tons between 2015 and 2021. In recent years, there has been a slight increase in production compared to other years. The catch of red mullet has been partially fluctuating between 1.2-1.7 thousand tons over the last seven years, while the catch of mullet (2-3.4 thousand tons) and hake (average of 1 thousand tons) has shown an increasing trend. The catch of turbot, another important demersal species, has fluctuated between 139 and 487 tons in recent years (Table 70), according to the data from the General Directorate of Fisheries and Aquaculture.

Table 70. Production Quantities of Most Commonly Caught Demersal Fish in Tons

Years	Haddock	Hake	Mullet	Red Mullet	Turbot
2015	13,158	706	3,476	1,255	239
2016	11,541	784	3,047	1,454	221
2017	8,248	1,011	2,074	1,406	167
2018	6,814	1,019	2,915	1,399	139
2019	8,941	1,270	2,342	1,719	272
2020	9,364	1,149	2,775	1,604	412
2021	10,380	839	3,072	1,359	487

Source: Turkish Statistical Institute, Directorate General of Fisheries and Aquaculture, 2022.

The most commonly caught other sea products are razor clams, sea snails, shrimp, black mussels, and squid. Among them, razor clam is the most caught other sea product. The species that provide the highest catch in the production of other sea products in our country, apart from fish, is white razor clam caught mostly in the Western Black Sea (Eleventh Development Plan 2019-2023).

Table 71. Production Quantities of the Most Caught Other Sea Products (Tonne)

Years	Sand mussels*	Sea snails	Shrimps**	Land mussels	Cuttlefish
2015	37,409	8,795	3,995	240	745
2016	20,937	10,354	4,501	78	925
2017	34,941	9,194	4,730	536	986
2018	44,534	9,672	4,536	604	1,042
2019	36,627	11,646	5,137	1,170	940
2020	21,881	8,461	5,204	1,035	961
2021	16,824	7,008	5,494	1,371	837

Source: Turkish Statistical Institute, Directorate General of Fisheries and Aquaculture, 2022.

8.2.3. Aquaculture

Aquaculture production, which was first recorded in statistics in 1986 with a production of 3 thousand tons, has shown a more or less continuous increase between 1986 and 2016, except for the years 2001-2002. Aquaculture production has continued to grow steadily since 2003 (Eleventh Development Plan 2019-2023).

In global aquaculture production, total capture in marine and inland waters was 90,265,933 tons, while total aquaculture production in marine and inland waters was 87,502,609 tons in 2020 (Turkstat).

Aquaculture production in our country was 335,644 tons, accounting for 71.2% of the total, while inland waters accounted for 136,042 tons, or 28.8% of the total, resulting in a total of 471,686 tons, with a share of 11.9% in the change compared to the previous year (Table 72) (Turkstat).

Table 72. Production Quantity of Marine and Inland Aquaculture

Years	Aquaculture Productions				Total (Tonne)	Change compared to the previous year (%)
	Sea (Tonne)	Share in total (%)	Freshwater (Tonne)	Share in total (%)		
2015	138,879	57,8	101,455	42,2	240,334	2.2
2016	151,794	59,9	101,601	40,1	253,395	5.4
2017	172,492	62,4	104,010	37,6	276,502	9.1
2018	209,370	66,6	105,167	33,4	314,537	13.8
2019	256,930	68,8	116,426	31,2	373,356	18.7
2020	293,175	69,6	128,236	30,4	421,411	12.9
2021	335,644	71,2	136,042	28,8	471,686	11.9

Source: Turkish Statistical Institute, Directorate General of Fisheries and Aquaculture.

In recent years, total production in our seas and inland waters has been the fastest-growing sector among all food production. According to TSI data from the last fishing season, the production of seafood from fishing amounted to 295,018 tons in the sea and 33,140 tons in our inland waters, with a total of 328,158 tons. The production of aquaculture was 335,644 tons in the sea and 136,042 tons in our inland waters, totaling 471,686 tons. Türkiye's total seafood production was 799,844 tons.

The most commonly grown species in Türkiye are trout, sea bream, and sea bass. Trout production has increased year by year in our seas and inland waters since 2015. Of the total production of 108,038 tons in 2015, 101,000 tons were obtained from our inland waters. The second most commonly grown species is sea bass with 155,151 tons, followed by sea bream with 133,476 tons in 2021. It is observed that the share of sea-based trout farming in production has been increasing over the years (Table 73).

Table 73. Production Quantities of the Most Cultivated Species in Türkiye (Tons)

Years	Trout			Bream	Perch
	Freshwater	Sea	Total		
2015	101,166	6,872	108,038	51,844	75,164
2016	101,297	5,716	107,013	58,254	80,847
2017	103,705	5,952	109,657	61,09	99,971
2018	104,887	9,61	114,497	76,68	116,915
2019	116,053	9,92	125,745	99,73	137,419
2020	126,101	18,182	144,283	109,749	148,907
2021	135,732	31,554	167,286	133,476	155,151

Source: Turkish Statistical Institute, Directorate General of Fisheries and Aquaculture, 2022.

Türkiye has suitable cultivation facilities, technology, and human resources for the development of aquaculture production. Our country is one of the leading countries in aquaculture among the Middle East, Caucasus, and European Union countries due to its location (Eleventh Development Plan, 2019-2023).

Most of our aquaculture facilities, especially our inland facilities, are small-scale family businesses (Eleventh Development Plan, 2019-2023).

As of the end of 2021, there are a total of 2,223 aquaculture facilities, including 488 in the seas and 1,735 in inland waters. The number of facilities with a capacity between 0-50 tons/year is 133 in the seas (Table 74).

Table 74. Distribution of Aquaculture Facilities by Capacities (2021)

Group	Capacity Group (Tonne)	Number of Facilities (Piece)	Total Project Capacity (Tonne/Year)
Sea	Hatchery*	**27**	**1,028,250,000 (Fry/Year)**
	0-50	133	3,685
	51-100	14	1,165
	101-250	19	3,104
	251-500	52	17,956
	501-1000	131	117,724
	1001>	112	245,440
	Total	**432**	**389,074**
Freshwater	Hatchery*	**77**	**619,286,900 (offspring) 283,092,000 (egg)**
	0-50	1,101	19,303
	51-100	112	9,955
	101-250	220	44,108
	251-500	126	54,399
	501-1000	97	82,357
	1001>	2	4,900
	Total	**1,735**	**215,022**

Source: Turkish Statistical Institute, Directorate General of Fisheries and Aquaculture.

According to the 2021 TSI data on the distribution of aquaculture facilities by capacity, there are 27 marine fish hatcheries in our country, with a fry capacity of 1,028,250,000 units/year and an egg capacity of 140,402,000 units/year. There are 77 inland fish hatcheries with a fry capacity of 619,286,900 units/year and an egg capacity of 283,092,000 units/year. In addition, the existing aquaculture facilities have a fry capacity of 934,728,120 units/year and an egg capacity of 570,311,495 units/year (Turkstat; DGFA, 2022).

8.3. Economic Evaluation of Aquaculture Sector

8.3.1. Production Quantity and Value of Aquatic Products

The production quantity and value of aquatic products in 2021 are 328,158 tons and 3,614,772,762 TL for fishing, and 471,686 tons and 18,482,440,710 TL for aquaculture, with a total quantity of 799,844 tons and a total value of 22,097,213,472 TL (Table 75) (Turkstat; DGFA).

Table 75. Production Quantity and Value of Aquaculture Products

Years	Fishing		Aquaculture		Total	
	Quantity (Tonne)	Value (₺)	Quantity (Tonne)	Vaule (₺)	Quantity (Tonne)	Vaule (₺)
2015	431,907	1,245,020,381	240,334	2,569,208,590	672,241	3,814,228,971
2016	335,320	1,340,878,317	253,395	3,239,320,980	588,715	4,580,199,297
2017	354,318	1,535,702,592	276,502	4,049,199,270	630,820	5,584,901,862
2018	314,094	1,852,664,426	314,537	5,606,828,410	628,631	7,459,492,836
2019	463,168	2,380,414,908	373,356	7,694,124,480	836,524	10,694,124,480
2020	364,400	2,848,969,147	421,411	10,859,581,980	785,811	13,708,511,127
2021	328,158	3,614,772,762	471,686	18,482,440,710	799,844	22,097,213,472

Source: Turkish Statistical Institute, Directorate General of Fisheries and Aquaculture

8.3.2. Türkiye's Import and Export of Aquatic Products

According to the 2021 TSI data, which are temporary, Türkiye's seafood export and import figures are as follows: exports amount to 238,732 tons with a value of 12,405,903,730 TL, while imports amount to 104,708 tons with a value of 1,962,837,828 TL (Table 76) (Turkstat; DGFA).

Table 76. Türkiye's Aquaculture Import and Export

Years	Export			Import		
	Quantity (Tonne)	Value ($)	Value (₺)	Quantity (Tonne)	Value ($)	Value (₺)
2015	121,053	692,220,595	1,879,701,163	110,761	250,969,660	685,467,749
2016	145,469	790,303,664	2,398,269.,090	82,074	180,753,629	548,878,092
2017	156,681	854,731,829	3,128,112,446	100,444	230,111,248	841,383,610
2018*	177,500	951,793,070	4,578,607,932	98,315	188,965,220	898,860,692
2019	200,226	1,025,617,723	5,818,776,189	90,684	189,438,745	1,076,277,706
2020	201,375	1,064,877,338	7,525,105,681	85,269	156,929,169	1,101,957,132
2021**	238,732	1,376,291,922	12,405,903,730	104,708	217,179,174	1,962,837,828

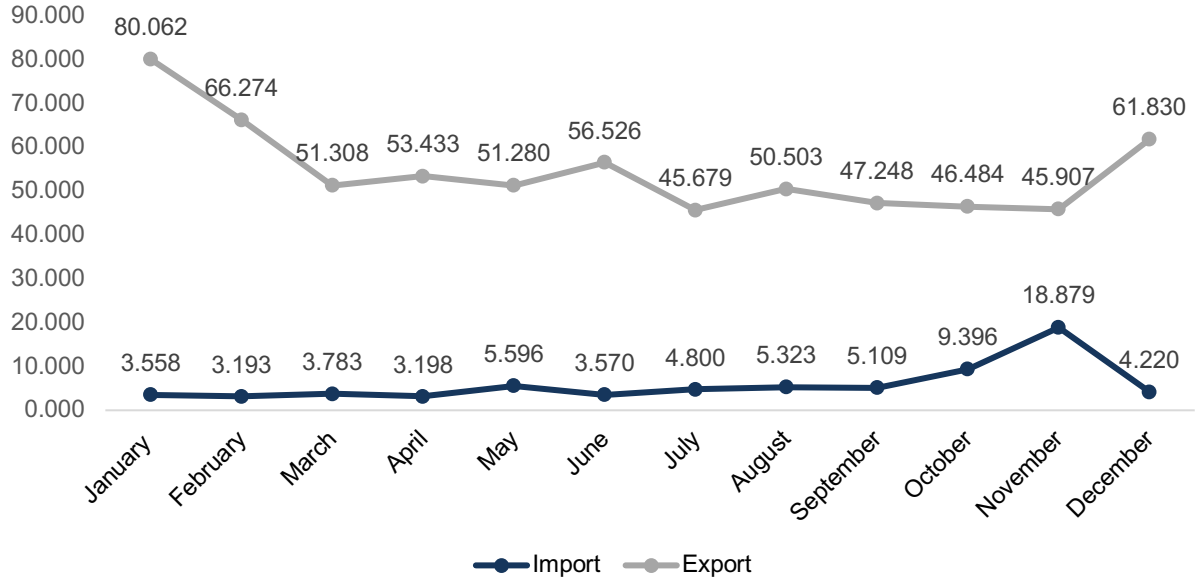
Source: Turkish Statistical Institute, Directorate General of Fisheries and Aquaculture.

8.3.2.1.Foreign Trade

The developments in foreign trade for the fisheries and aquaculture sector in the year 2022 are as follows: the export amount for the fisheries and aquaculture sector from January to December was a total of 656 million 248 thousand dollars, while the import amount was a total of 70 million 630 thousand dollars. In December 2022, the export amount for the fisheries and aquaculture sector was 61 million 830 thousand dollars, and the import amount was 4 million 220 thousand

dollars. Looking at economic activities, the share of the agriculture, forestry, and fisheries sector in exports in December was 3.9%, while the share of this sector in exports from January to December in terms of economic activities was 3.1% (Graph 53).

Graph 53. Export and Import Values (Thousand US$) of Fisheries and Aquaculture Sector, January-December 2022



Source: Turkish Statistical Institute

8.3.3. Production and Consumption in Aquaculture

Fish and other aquatic products are an important animal food with many superior properties, such as protein, energy, vitamins, and minerals, as well as digestibility. It is essential for people of all ages to consume this high-quality food (Eleventh Development Plan, 2019-2023).

In 2021, the production was 799,844 tons, exports were 238,732 tons, and imports were 104,708 tons. According to the data of the Turkish Statistical Institute (Turkstat), the consumption of fish and seafood was evaluated as 554,284 tons in terms of tonnage, and fishmeal/oil production was 110,209 tons (Table 77).

Table 77. Production, Export, Import, and Consumption of Aquatic Products

Years	Production (Tonne)	Export (Tonne)	Import (Tonne)	Consumption (Tonne)		Evaluated (Tonne)	Per capita consumption (Kg)
				Domestic consumption	Fishmeal/oil*		
2015	672,241	121,053	110,761	479,741	176,138	6,070	6.1
2016	588,715	145,469	82,074	426,085	93,096	3,992	5.5
2017	630,820	156,681	100,444	441,573	130,917	2,080	5.5
2018**	628,631	177,500	98,315	498,959	47,276	3,115	6.1
2019	836,524	200,226	90,684	514,640	209,109	2,850	6.3
2020	785,811	201,157	85,269	559,932	107,223	2,768	6.8
2021	799,844	238,732	104,708	554,284	110,209	1,277	6.6

Source: Turkish Statistical Institute, Directorate General of Fisheries and Aquaculture
Note: *Amount processed in fishmeal and fish oil factories
**Starting from 2018, import and export figures include the GTİP codes 010690009011 and 020890700000.

CHAPTER IX

SHIP AGENCY

9. SHIP AGENCY

9.1. Ship Agency

The Definition of Ship Agents and Ship Agency Services

Ship agents are real persons or legal entities who are paid to protect the rights and interests against the third parties of the ship owners, ship's masters, ship-operators and ship-charterers ; relating to the cargo and passenger operations of naval and commercial vessels and vehicles within the area of their appointment.

Ship Agency Services means the fulfilment of operations regarding passenger, cargo, maintenance/repair, survey, supply, change of personnel, loading/discharging, having pilot/tugboat services and etc. of all kinds of naval and commercial vessels and vehicles which are calling at Turkish ports, in the presence of relevent individuals, instutitions and authorities and providing complete application of the rules that are implemented by the Laws of the Republic of Türkiye and giving all kinds of information regarding such business accurately and completely.

The Legislation on Ship Agency Activitiy

Shipping agency companies operating in our country are subject to the provisions of the Turkish Commercial Code No.6102, in particular, the Regulation on Ship Agencies dated 05.03.2012 and numbered 28224, and Communiqué Regarding Wage Tariff of Shipping Agency Services (Ship Agency Services Tariff) dated 10.03.2008 and numbered 26812.

According to the Regulation on Ship Agencies, a company wishing to operate as a ship agency in our country must obtain a ship agency authorization certificate from the Ministry of Transport and Infrastructure, General Directorate of Maritime Affairs.

Data on Shipping Agencies

According to the data of the Ministry of Transport and Infrastructure, as of 31.12.2022, there are a total of 1186 shipping agency companies operating in our country with a ship agency authorization certificate. This number reaches 1434 with the shipping agency companies that have the branch authorization certificate.

Shipping agency companies operate in a total of 26 provinces, and it is seen that 82% of the companies operate in İstanbul, Muğla, İzmir, Mersin, Kocaeli and Hatay (6 provinces in total), where ship agency services are carried out intensively.

According to the data of the Ministry of Transport and Infrastructure, shipping agency personnel identification cards were issued to 1174 people in 2022.

Table 78. Data of Ship Agencies Authorized by Years

Years	Head Office	Branch Office	Total	%
2013	792	200	992	---
2014	800	194	994	0.2
2015	872	201	1,073	7.9
2016	937	196	1,113	5.6
2017	985	212	1,197	5.6
2018	1,008	221	1,229	2.6
2019	1,082	213	1,295	5.1
2020	1,074	222	1,296	---
2021	1,117	229	1,346	3.7
2022	1,207	247	1,454	8.0
2023	1,186	248	1,434	-1.5

Source: Ministry of Transport and Infrastructure (31.12.2022)

Table 79. Distrubion of Ship Agencies By 6 Provinces

Number	Name Of Province	Head Office	Branch Office	Total Number of Company	%
1	İstanbul	507	28	535	37.0
2	İzmir	115	63	178	13.0
3	Muğla	136	14	150	11.0
4	Mersin	100	45	145	10.0
5	Hatay	76	26	102	7.0
6	Kocaeli	61	28	89	6.0

Source: Ministry of Transport and Infrastructure (31.12.2022)

Table 80. Distrubion of Ship Agencies By 4 Regions

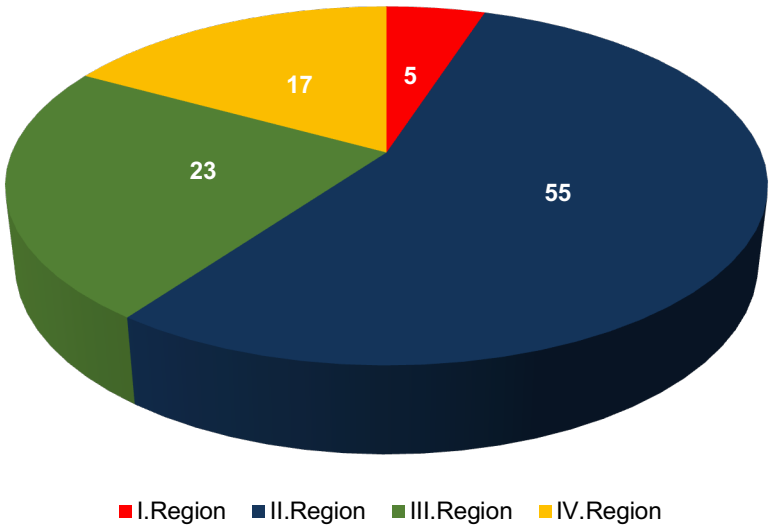
Regions	Head Office	Branch Office	Total Number of Company	%
I.Region (Black Sea)	58	17	75	5.0
II.Region (Marmara Sea)	655	73	728	55.0
III.Region (Agea)	271	81	352	23.0
IV.Region (Mediterranean)	202	77	279	17.0
Total	1186	248	1.434	

Source: Ministry of Transport and Infrastructure (31.12.2022)

More than half of a total of 1,186 shipping agency companies operate in the 2nd Region, where the industrial cities Istanbul, Kocaeli and Bursa are located.

It is observed that 23% of the shipping agency companies operate in the 3rd Region, which includes Muğla Province, where ship agency services are provided to yachts, and İzmir and Aydın provinces, where agency services are intensively provided to cruise ships.

Graph 54. Distrubion of Ship Agencies By 4 Regions (%)



Source: Ministry of Transport and Infrastructure (31.12.2022)

9.2. Freight Forwarders

Freight forwarding companies operate with the freight forwarder authorization certificate they have received in accordance with the Freight Organization Regulation published in the Official Gazette dated 27.08.2022 and numbered 31,936.

In order to have a freight forwarder authorization certificate, companies must have a capital of at least 150.000 Turkish Lira and pay the freight forwarder authorization certificate to Ministry of Transport and Infrastructure, fee of 273,244 TL for 2022.

Currently, there are 7.596 freight forwarding companies authorized by the Ministry of Transport and Infrastructure.

9.3. Maritime Trade Inspection Service Activities

In our country, maritime trade inspection services are provided with the maritime inspection authorization certificate obtained from the Ministry of Transport and Infrastructure, the General Directorate of Maritime Affairs, within the framework of the Maritime Trade Inspection Services Regulation dated 19.11.2019 and numbered 30953.

Currently, there are 146 marine inspection companies authorized by the Ministry of Transport and Infrastructure.

Marine inspection service areas according to the Maritime Trade Inspection Services Regulation;

1) Ship inspeciton services have been as;

a) Ship purchase and sale survey,

b) Ship's charter survey,

c) Fuel and oil indication survey,

d) Cargo supply survey,

e) Ship dismantling Survey.

2) Inspection services for loading and unloading;

a) Ship loading/unloading and transshipment survey,

b) Port and tank area survey,

c) Container stock control and stowage safety survey at the port area and coastal facility

d) Pre-loading check.

determined.

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