

Comparison Of Fisheries Sectors Of Japan And Turkey In Production And Trade Opportunities

Mahmut Munir Guzel, Nagasaki University, Japan
Kazuhiko Kameda, Nagasaki University, Japan
Naotoshi Yamamoto, Ph.D., Nagasaki University, Japan

ABSTRACT

This study clarifies the changes in the trade of fish-related commodities (FRC) between Turkey and Japan, and discusses the outlook of such trade. Turkey's ability to adapt to the international food-safety standards enabled it to export primary commodities to the region. Turkey can draw from its EU experience when exporting primary products to Japan. Fisheries trade between Turkey and Japan has increased significantly in the past decade, from just over US\$12 million (2,404 tons) in 2000 to more than US\$49 million (3,653 tons) in 2011. From our interviews, we found that (1) there are significant fish-related trade opportunities between the two countries; (2) addressing the lack of knowledge or factual information in general is the most important task for increasing such fisheries trade; and (3) communication initiatives such as advertising, exhibitions, and field trips are necessary to increase the countries' basic understanding of each other's fisheries sector. In conclusion, detecting and capitalizing on new potential (FRC) (e.g., Atlantic bonito, Pacific saury, and sardine) in accordance with the preference of the market could be a new strategy that would promote further development of trade between the two countries.

Keywords: Turkey; Japan; Fisheries Sector; Exports; Imports

TRADE OPPORTUNITIES FOR FISHERIES IN TURKEY AND JAPAN

*T*raditionally, Turkey and Japan have had good trade and investment relations since the 19th century under the Ottoman Empire. At present, Japan invests heavily in Turkey; it invested US\$347 million in 2010 and US\$227 million in 2011. Japan is Turkey's 4th largest trading partner in the Asia-Pacific region (The Case of Turkey, 2011). In July 2011, Japan and Turkey developed a framework for economic cooperation in order to strengthen bilateral trade and investment. Today, global marine-products trade occurs mainly among the EU, East Asian, and Middle Eastern markets. Turkey's experience in exporting marine products to the EU has been favorable, and it can leverage this experience in its expansion to the other two markets. This paper examines Turkey's opportunities in and strategy for the East Asian market, specifically, Japan. The paper presents a clear picture of Turkey's marine-products sector by comparing the socioeconomic structure of its fisheries sector with that of Japan.

This paper is the first to survey the trade relations between fisheries in Japan and Turkey. Japan is Turkey's 61st largest export market in the world and 8th largest in the Asia-Pacific region. Turkey's total exports to Japan in 2011 were US\$296 million. Turkey is also Japan's 14th largest importer in the world and the 4th largest in the Asia-Pacific region. Japan's total exports to Turkey in 2011 were US\$3.3 billion (The Case of Turkey, 2011). The Turkish-Japanese Business Council has been attempting to improve bilateral trade and industrial cooperation between the two countries. Turkey's strong economy can be largely attributed to its young population. Turkey is also a geopolitically important nation because of its location at the crossroads of Asia, the Middle East, and Europe.

Vegetables and fruits are some of Turkey's other important exports. For instance, it exports hazelnuts, flour, tobacco leaves, and nuts adjustment articles to markets such as the EU and the United States. Turkey's primary commodities export is high owing to three main factors: its production capacity in the agriculture and

fisheries sectors, its marketing capacity for its primary goods, and its ability to adhere to food safety standards. These also largely explain Turkey's successful export expansion into the EU. Meanwhile, Turkey also exports bluefin tuna (domestically caught as well as sourced from other countries) to Japan.

For this study, we interviewed 90 businesspersons in the Tokyo, Istanbul, and Trabzon fisheries sectors. The participants were interviewed from September 1 to 15, 2011 and from November 4 to 15, 2011. The participants, who were Japan-Turkey Business Partnership Forum members, and employers of the Japanese International Cooperation Agency (JICA), Japan External Trade Organization (JETRO), Turkish Statistical Institute (TurkStat), Embassy of Turkey in Tokyo, Nagasaki University, Karadeniz Technical University, Tokyo University of Marine Science and Technology, and Trabzon Fisheries Research Institute, were interviewed regarding the Japan-Turkey trade relations, specifically regarding fisheries and marine-food trade.

The findings from our interviews are somewhat limited in that not all of our respondents are familiar with the fisheries sectors of Turkey and Japan. All participants agree that the Turkey-Japan relation is positive (82%: very positive; 18%: positive). Many also agree that Turkey has become an important intersection for Europe, the Middle East, and Central Asia. However, based on the present economic conditions in both countries, the respondents have concluded that "the present economic relation between Turkey and Japan is not very affirmative compared with the historical relations between the two."

FISHERIES SECTOR IN TURKEY

According to Turkish Statistical Institute (Turkstat) data, 3% of Turkey's eastern Mediterranean region is located in Europe and 97% in Asia. Turkey is surrounded by sea on three sides—the Black Sea in the north, the Mediterranean Sea in the south, and the Aegean Sea in the west. The Sea of Marmara in the northwest is an important internal sea.

The weather and distribution of organisms for each sea is different (Convention on Biological Diversity, 2010). The seas surrounding Turkey represent an exclusive economic zone of about 261,654 km² and an inshore fishing area of 56,093 km² (Seaaroundus.org, 2012). According to the latest data, there are 480 sea fish species and 236 inland water fish species in Turkey. Specifically, there are 388 fish species in the Turkish waters of the Mediterranean Sea, 389 in the Aegean Sea, 249 in the Sea of Marmara, and 151 in the Black Sea (European Environmental Agency, 2011). In the last 20 years, fishermen in Turkey have caught about 20–25 species of fish.

In 2010, Turkey's fish production increased by 4.8% over the previous year to about 653,000 tons. Turkey accounts for about 0.6% of the total world production of fish. Marine fish production by catch was about 480,000 tons (73%), by aquaculture about 137,000 tons (21%), and by inland fishery about 40,000 tons (6%). The marine fish stock in Turkey has been decreasing. Thus, freshwater stock and aquaculture technology development have become important fish sources (Figure 1).

In 2010, Turkey's total fish production came from the East Sea (58.8%), West Black Sea (17.4%), Aegean Sea (8.9%), Sea of Marmara (8.9%), and Mediterranean Sea (6.2%) (TurkStat, 2010). The fish processing industries play a vital role in increasing production and foreign income in Turkey. The processed fish are mostly frozen, marinated, smoked, and canned commodities.

From our interviews, we found that Turkey's domestic consumption of sea bream and sea bass has increased in recent years. Thus, Turkish fishing companies have increasingly spent more effort in catering to the domestic market; some fish dealers have even created their own chains or distribution networks. Turkey has also been focusing on (FRC) for export, such as anchovy, Atlantic bonito, horse mackerel, trout, sea bream, sea bass, and striped venus clam.

In 2010, the total catch of anchovy, mostly pelagic, was 229,000 tons (48% of the entire marine fish catch). Anchovy is a staple in the Turkish diet. The Atlantic bonito can be caught or as well as angled. In 2010, the total catch was about 9,400 tons (TurkStat, 2010). The high quality of bonito products in Turkey is quite apparent.

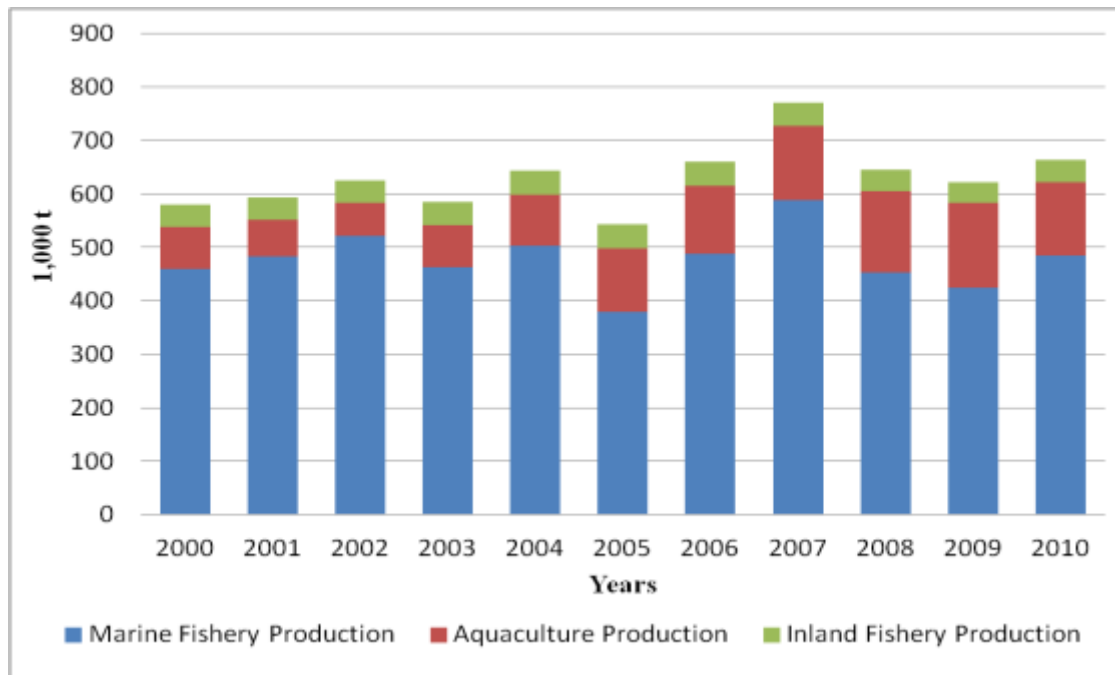


Figure 1. Annual fish production (ton) in Turkey

Source: Turkish Statistical Institute, various years

Horse mackerel is a main seasonal pelagic catch, totaling about 14,400 tons in 2010. Turkish fishing companies export it (both fresh and frozen) to the EU and the Middle East. Striped venus clam, which is sold by retailers, is exported to the EU, especially to Italy. In 2010, the striped venus clam catch was about 26,700 tons (TurkStat, 2011).

Turkey's aquaculture, also known as fish farming, began in the 1980s with rainbow trout (*Oncorhynchus mykiss*). Turkey's aquaculture production increased sharply in the 1990s. Modern aquaculture is one of the most promising and fastest growing sectors in Turkey. In 1986–2011, aquaculture production in Turkey increased from 3,000 tons to 167,000 tons. Turkey has significant inland water resources with a high potential for fishing and aquaculture. Aquaculture production is mainly sourced from farming for rainbow trout (47%); sea bass (29%); sea bream (18%); and other seafood such as carp, mussel, and trout (TurkStat, 2011).

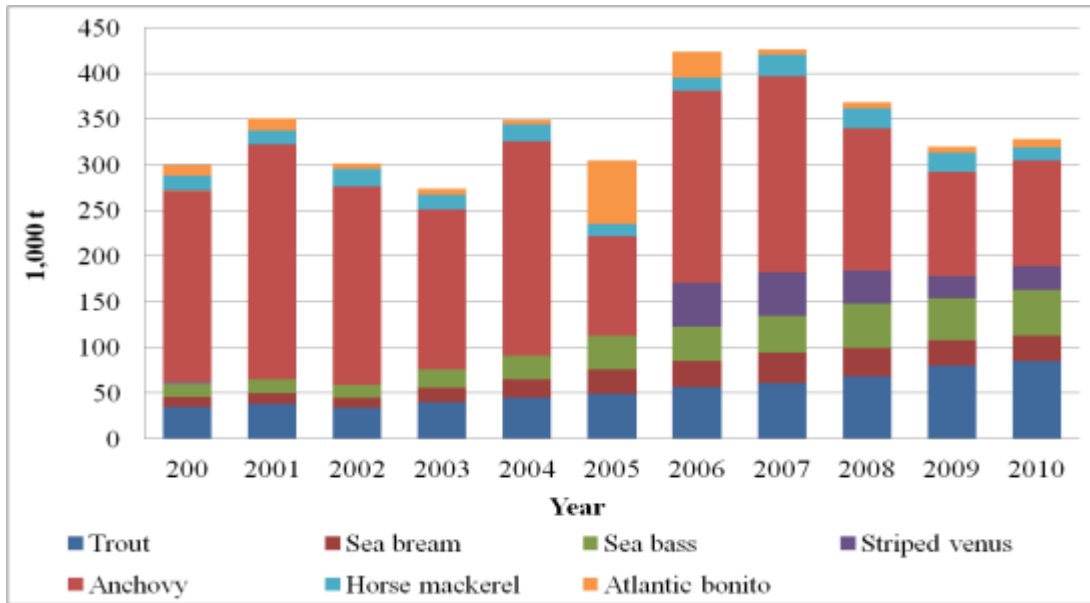


Figure 2. Turkey's annual catch of high-potential fish types for export to Japan

Source: Turkish Statistical Institute, various years

Turkey's Export and Import of FRC

The fisheries sector is not yet a key trade sector in Turkey. However, Turkey's exports and imports of FRC have rapidly increased in recent years. In 2000, Turkey's exports totaled 55,109 tons, worth US\$131 million, and imports reached 80,726 tons, worth US\$105 million in 2010 (TurkStat, 2011). The growing trend of FRC exports over the past two decades (see Figure 3) shows significant opportunities for Turkey. Thus, Turkey's fisheries sector would be an important factor influencing its EU membership.

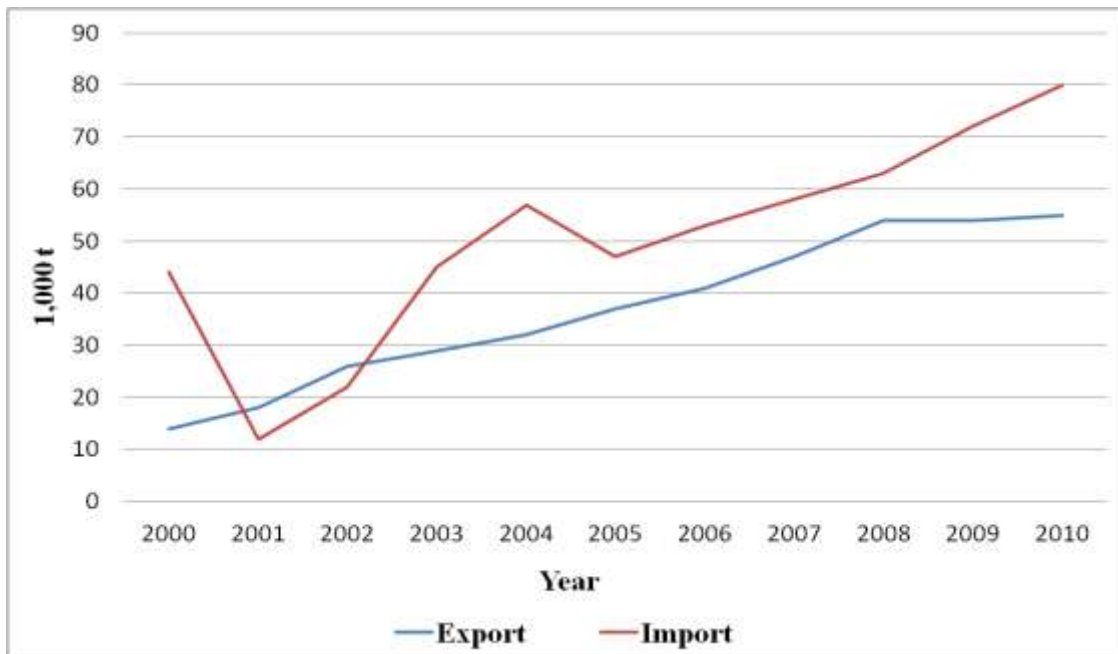


Figure 3. Turkey's annual exports and imports of marine products

Source: Turkish Statistical Institute, various years

Many of the Turkish respondents think that the Turkish fisheries sector puts pressure on fish stock and that this will negatively affect FRC exports in the near future. The Turkish fisheries sector has no limits on FRC imports. According to TurkStat, 80% of the total FRC imports in Turkey are frozen fish, which are bought by two major canneries. These canneries import frozen yellowfin tuna and frozen bonito from the Indian Ocean, caught by Spanish fleet. Turkey mainly imports fish from Norway, France, Iceland, Spain, China, and the United States. In recent years, the Turkish government has been developing and promoting its fisheries sector by acting as an intermediary between foreign importers and Turkish businesspersons. Turkey exports more than 200 types of FRC to more than 60 countries. In addition, the Turkish government has been supporting domestic businesses in their exports.

The government's efforts are important because of the high value FRC such as bluefin tuna, sea bass, and sea bream. Almost 50% of sea bass and sea bream, and 33% of rainbow trout caught in Turkey is exported to the EU. In addition, the entire domestic production of bluefin tuna is exported to Japan. However, Turkey's exports started stagnating in 2008 owing mainly to the decrease in the export of tuna to Japan (TurkStat, 2011).

Summary on the Turkish Fisheries Sector

As we have mentioned, Turkey's fisheries sector does not impose a limit on FRC imports. Turkey has imported tuna from other countries. The decrease in tuna exports to Japan reduced Turkey's overall FRC exports. These three phenomena show that Turkey's processing and freezing of tuna imported from other countries, which it then exports to Japan, is already established. Entrepreneurs in Turkey's fisheries sector regard Japan as their main market.

Given the situation described above, we can say that Turkey's domestic market-oriented tuna canning manufacturers are different from its exporters of tuna to Japan. This differentiation is based on the fact that primary commodities and food comprise 30% of Turkey's total exports. Turkey has been exporting to the EU and can use this experience in expanding their exports to Japan.

JAPANS FISHERIES SECTOR

The fisheries sector is important in Japan, as it plays a significant role in providing fish protein to the population. Japan's land area is 377,801 km², and its coastline is 29,751 km long. Japan's exclusive economic zone is approximately 4,479,388 km², ranked 9th in the world. This zone is 10.7 times as large as the national territory. There are approximately 3,300 fish species in the Japanese waters (Masuda et al., 1984).

Many fishermen in Japan are currently engaged in coastal fishing, but most of them face difficulties in finding their successors. Japanese traditional fishing gears and methods have been designed for environmental sustainability and respecting the characteristics of different fish biology. In each coastal fishing village, fishermen follow fishing regulations, which are based on historical customs.

Japan has developed a unique marketing and distribution system for fishery products with a network of fish markets in landing places and in the centers of consumption. This system ensures the survival of the fishermen's organizations and high fish consumption in Japan.

Japanese fish production has increased over the years, peaking in 1988. From 1972 until the first half of the 1980s, Japanese fisheries were the largest global producers, with a maximum capacity of 11.6 million tons in 1988 (Nobuyuki, 2011). Since then, however, Japanese fish production has declined steadily. Meanwhile, the production volume of coastal or offshore fisheries, excluding that for sardines, has been unchanged or moderately declining in the past few years (Fishery Agency of Japan, 2011).

In 2010, the total fishery production of Japan was 5.27 million tons, of which 4.08 million tons were from marine fishing. Marine aquaculture produces 1.1 million tons annually (MAFF, 2011a); Japan's aquaculture has recently tried to farm bluefin tuna in order to promote reasonable resource use.

The rich marine coastal areas surrounding Japan have developed a fish-eating culture. Japanese marine fisheries are divided into three categories: distant water fishing (mainly pelagic and in the foreign exclusive economic zone), offshore fishing (in the domestic exclusive economic zone, as well as in areas under bilateral agreements with neighboring countries), and coastal fishing.

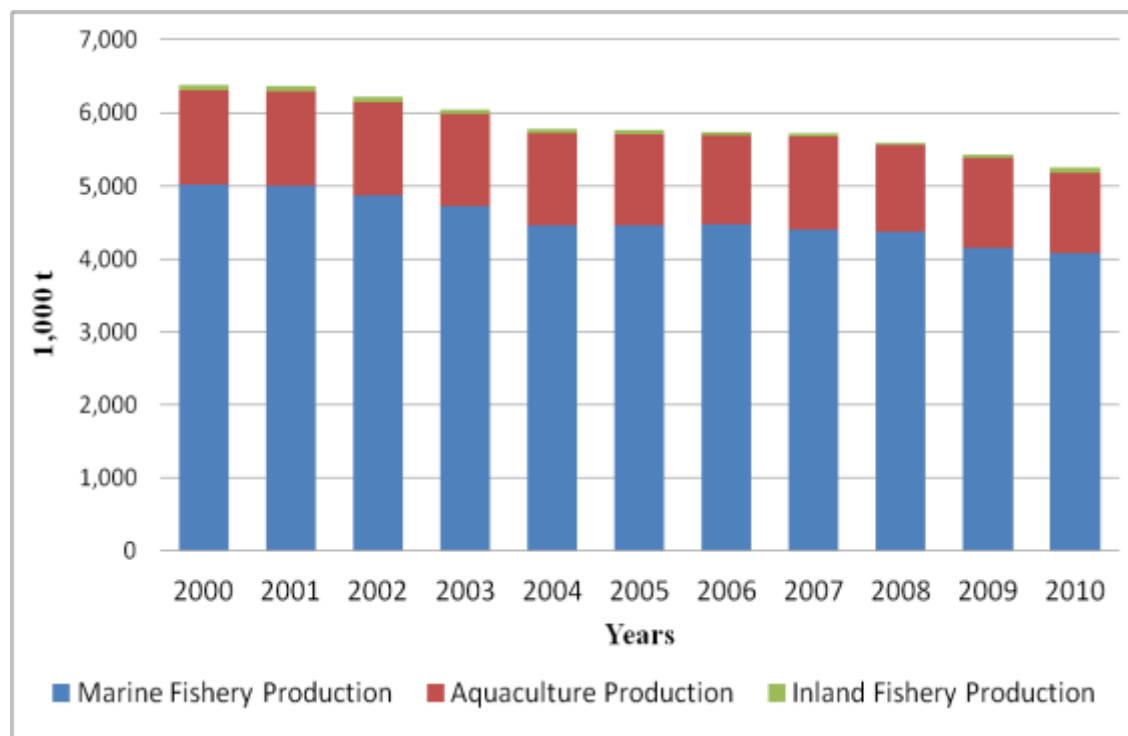


Figure 4. Japan's annual fish production (tons), 2000–2010

Source: MAFF, various years

The Export Potential of Fish Species in Japan

From our interviews, we found that in Turkey, the exports of tuna, bonito, red sea bream, Pacific saury, jack mackerel, and yellowfin tuna to Japan may indirectly help in creating new jobs. Wild-caught tuna in Japanese waters has decreased in recent years; it was approximately 194,000 tons in 2010 (MAFF, 2011b).

According to data from the Ministry of Agriculture, Forestry and Fisheries, the trade, processing, marketing, consumption, pricing, and profits of tuna exports to Japan mainly arise from the importance of tuna in Japanese cuisine, which includes sashimi, sushi, tuna steak, and canned tuna. In 2012, 332,500 tons of bonito were caught and exported to Japan. Tuna is also seared and hard smoked (*tataki* and *katsuobushi*, respectively) in Japan.

Red sea bream is also exported to Japan, where it is prepared as a steak and used in other Japanese dishes. The red sea bream is one of the most important commercial fish in Japan. A whole red sea bream is enough for an entire meal for one person, albeit it is quite expensive. Red sea bream production in 2010 was 95,000 tons.

The Pacific saury is another important commercial offshore fish in Japan. Its production in 2012 was approximately 230,000 tons. Meanwhile, jack mackerel is often served in Japanese casual restaurants. In Turkey, it is as well known to consumers as tuna, bonito, and Pacific saury. The production of jack mackerel in 2010 reached around 154,000 tons. Yellowfin tuna is caught in Japan mainly for the sashimi market. The production of yellowfin tuna in 2010 was approximately 100,000 tons. As mentioned earlier, the three major markets for yellowfin tuna are the EU, East Asia (especially Japan), and the United States (MAFF, 2011a, 2011b). Figure 5 shows the annual catch for the different fish species in Japan.

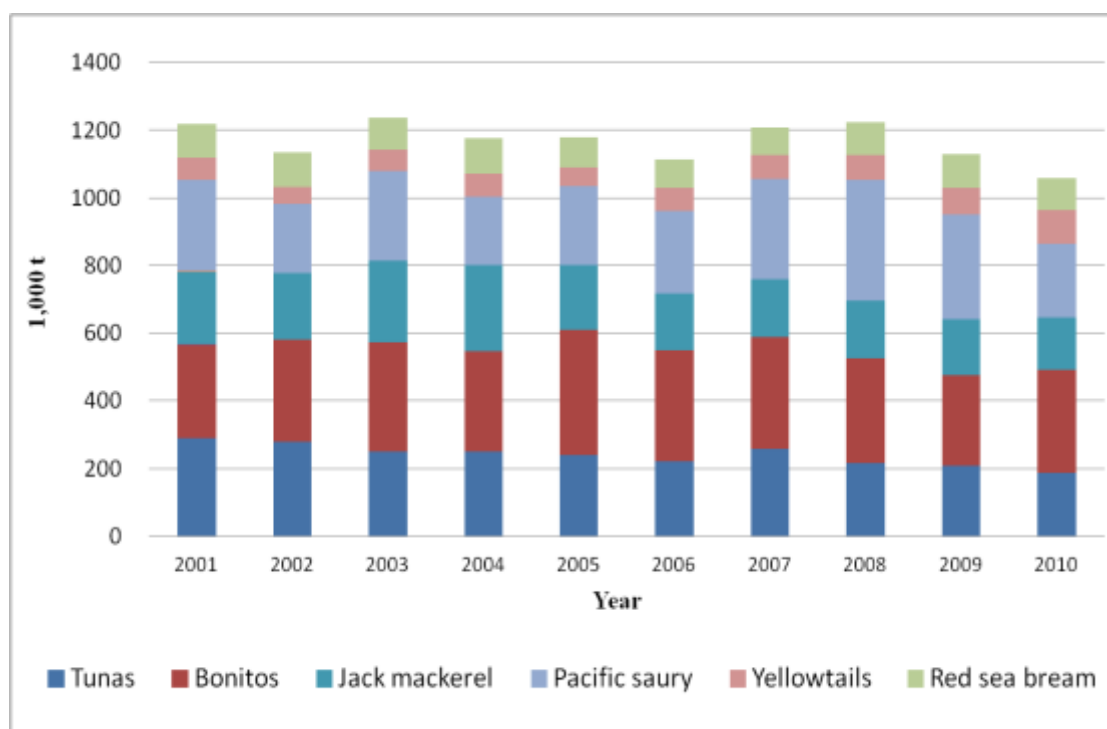


Figure 5. Japan’s annual catch of high-potential fish types for export to Turkey

Source: MAFF, various years

Japan’s Export and Import of FRC

Japan’s FRC exports have increased in the past decade (Figure 6). In 2010, it was approximately US\$2.2 billion. The most valuable commodities are pearl, salmon, mackerel, dried sea cucumber, Alaskan pollock, scallop, and bonito. The top countries to which these products are exported are Hong Kong, China (the mainland excluding Taiwan), the United States, Korea, and Thailand. Approximately 95% of the dried sea cucumber catch, which is the 10th most valuable item, is exported to Hong Kong (Japan’s Agriculture, 2010).

Japan is the largest importer of FRC in the world. The total imports are approximately US\$15.6 billion in 2010. About 40% of Japan’s fish consumption depends on imported FRC. Japan imports fresh, frozen, and even live FRC. Its main import commodities are tuna, bonito, shrimp, salmon, trout, and shrimp (including prepared or processed ones). The top exporters of FRC to Japan are the United States, China, Australia, Thailand, and Canada. Japan is the largest consumer of tuna in the world, importing 473,000 tons (Japan’s Agriculture, 2010).

From our interviews, we also found that there are enormous potential trade opportunities for Turkish businesspersons. The Turkish participants have expressed regret for not seeing this trade potential (both for exports and imports) until now.

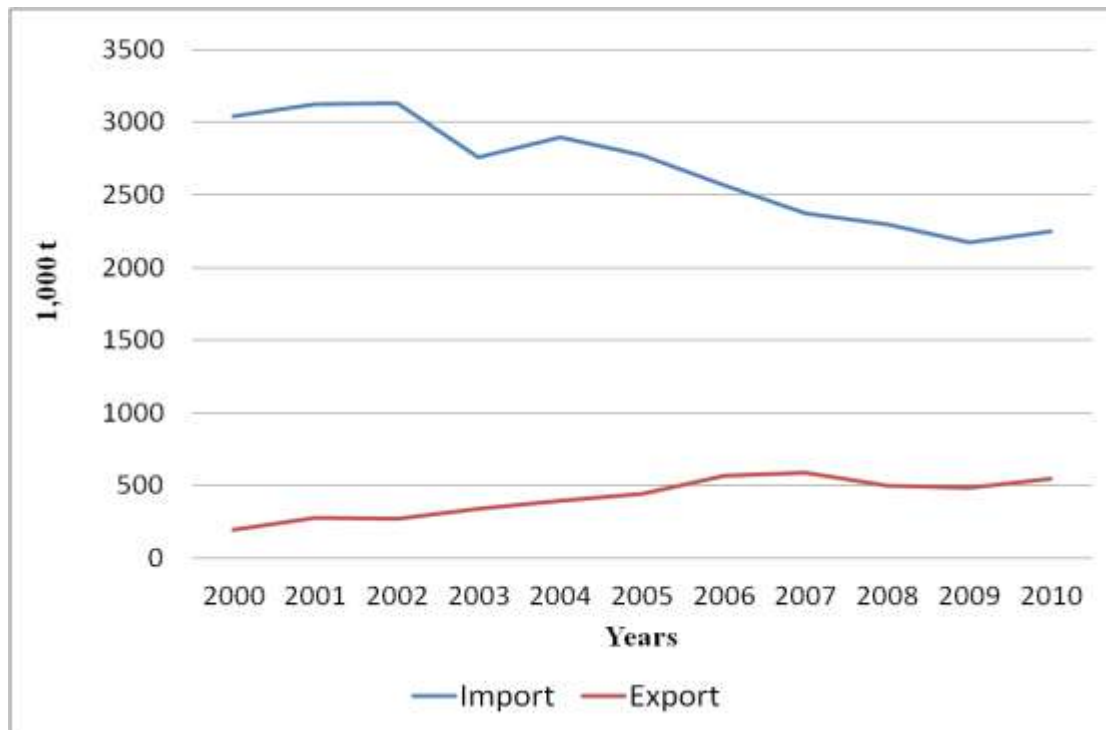


Figure 6. Japan's exports and imports of fishery products, 2000–2010

Source: Trade Statistics of Japan, various years

FISH CONSUMPTION IN TURKEY AND JAPAN

The main fish commodities are highly seasonal; for instance, when not in season, the price of fresh anchovies will increase (TurkStat, 2010). Our interview findings suggest that the total consumption of fishery products in Turkey lags far behind those of developed countries. For instance, the per capita fish consumption in Turkey is 7.8 kg/year, well below the EU average of 22.0 kg/year, and the global average of 16.0 kg/year (Per Capita Consumption, 2010; TurkStat, 2010). This variation, shown in Figure 7, depends mainly on the availability of small pelagic fish, especially anchovies.

The ocean is an important source of food in the Japanese diet. Today, nearly 40% of the protein consumed by Japanese people comes from seafood. Japanese consumption of fish remains strong (Per Capita Consumption, 2010): the per capita consumption in Japan is 58.6 kg/year, 6.7 times that in Turkey.

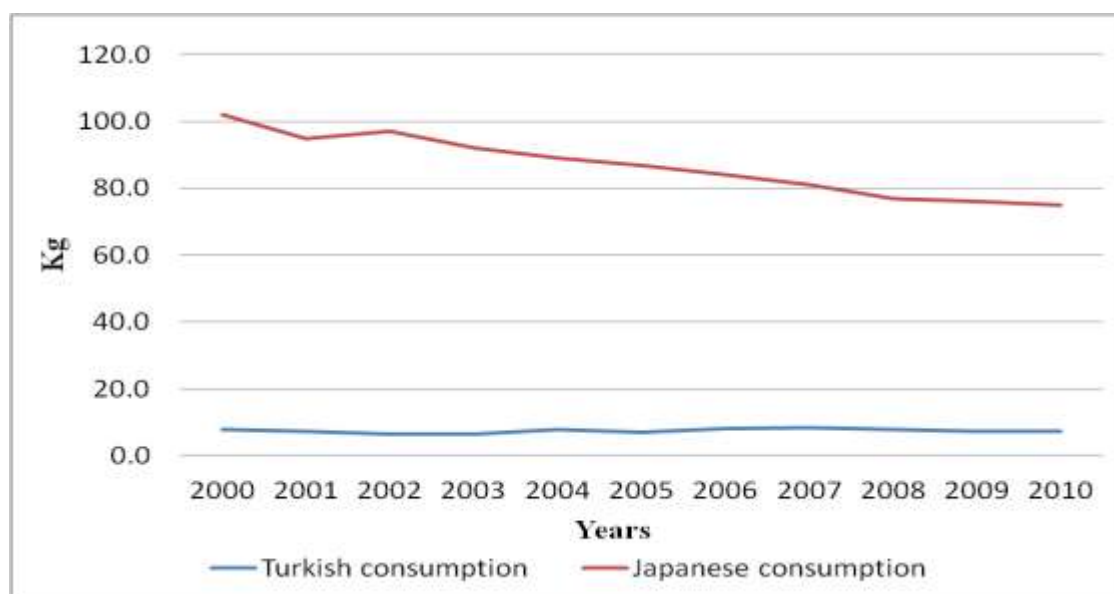


Figure 7. Annual per capita consumption of seafood in Turkey and Japan, 2000–2010

Source: Ministry of Agriculture, Forestry and Fisheries, Turkish Statistical Institute, various years

DISCUSSION

The Turkish economy has been performing remarkably, growing steadily over the past eight years. Its GDP more than tripled, from US\$231 billion in 2002 to US\$736 billion in 2010. Similarly, GDP per capita rose from US\$3,500 to US\$10,079 in this period (TurkStat, 2011). In addition, Turkey has continued to make efforts to meet the EU’s food-safety standards (handling, processing, storing, transporting, and quality control). These efforts have enabled Turkey’s FRC export expansion in the EU.

The data in Tables 1 and 2 show the positive economic and environmental impact of increased government economic conditions for regulations and standards. In 2009, the total fish trade from Japan to Turkey was approximately US\$101 million, higher than the US\$14 million in 2000; these exports include tuna (predominant export commodity), octopus, shrimp, sea snails, and shell export from Turkey to Japan. Japan exports some Japanese fish species to Turkey, which are then used for sashimi and sushi in Japanese restaurants in Turkey. In 2010, due to the global economic crisis and Japan’s tuna overstock, Turkey’s international trade dropped to approximately US\$34 million (Trade Statistics of Japan, 2010).

Table 1
Fisheries Export from Turkey to Japan, 2000–2011

Year	Amount (Ton)	Value (Million US\$)	Turkey’s fisheries export (%)	Japan’s fisheries import (%)
2000	1,764	12.6	23	0.07
2001	1,769	8.4	18	0.04
2002	3,653	10.4	10	0.05
2003	2,623	45.1	36	0.26
2004	4,129	79.3	44	0.48
2005	3,838	82.8	40	0.48
2006	3,634	84.1	36	0.46
2007	3,882	108.9	40	0.62
2008	2,859	98.4	26	0.66
2009	1,359	119.6	38	1.06
2010	1,369	35.4	11	0.32
2011	2,404	49.6	13	0.46

Note. Trade Statistics of Japan, various years

Table 2
Fisheries Export from Japan to Turkey, 2000–2010

Year	Amount (Ton)	Value (thousand US\$)
2001	35	332
2003	98	491
2008	29	2070

Note. Trade Statistics of Japan, various years

Our interview findings suggest that Turkey and Japan have good trade relations, and each contributes to the other's economy. The fisheries sector is not an important export sector for Turkey at the moment (The Case of Turkey, 2011). However, our interview findings showed interesting opinions; for instance, 11% of our respondents agree that "the fisheries sector's relation between the two countries is positive."

What does this finding mean? We have two viewpoints, described below. First, since FRC trade accounts for a small percentage of overall trade between Turkey and Japan, an increase in FRC trade would not significantly increase overall trade. Second, the trade between both countries has significant room for expansion. Turkey's experience exporting primary commodities to the EU, combined with the strategies of Japanese trading companies, will enable increased trade.

The positive outlook mentioned above depends significantly on the following factors:

- Knowledge about FRC and the fisheries sector of both countries;
- Sensitivity of Japanese companies to the market; and
- The food safety level (43%), which is especially requested for the FRC in Japan, and the location of the market (23%).

The participants in our interviews have made recommendations for how trade between Turkey and Japan can increase: increasing communication programs and activities through governmental support (54%), clarifying the status of the fisheries sector and its potential through scientific standards (88%), and sufficiently exchanging information on fishery commodities (71 %).

These descriptions clearly explain the significance of this study and the importance of the proposed research. The upward trend in Turkish trade, especially in FRC, shows a great potential for expanding the export sector.

In our interviews, the respondents agreed that "Turkey and Japan fisheries trade will increase in the near future" (92%: "Yes", 8%: "maybe"). However, they mentioned certain problem areas: (a) the Japanese food-safety standards, which are important criteria for Turkish businesses to be able to do business with Japan, and (b) the complex Japanese domestic commercial system and traditions.

CONCLUSION

There are regular cultural exchanges between Turkey and Japan. Bilateral relations between the two countries are friendly and cordial, and are steadily improving. This study aims to further develop the bilateral economic relations between the two countries. We suggest holding a series of workshops on various themes and sectors such as how to establish a business in each other's countries.

Innovation is vital for knowledge-based businesses to gain new ground and maintain a competitive edge. Therefore, the fisheries sector in Turkey needs a comprehensive strategy to ensure sustainable development and to maximize its potential.

Turkey's trade opportunities with Japan are as follows:

- Turkey can leverage its trade experience in the EU in the past decade to its marine-products export to Japan. An important aspect of this experience is the ability to respond to the EU food safety standards.
- Some species of fish have potential because they are suitable for the Japanese domestic food consumption. Such fish stocks are not used in Japanese traditional home cooking, but are used in fine-dining and casual restaurants, as well as in processed (precooked) food products.
- However, at present, Turkish entrepreneurs still face deficiencies in knowledge, partners, and government support, which hinder their export expansion to Japan.

ACKNOWLEDGEMENTS

We would like to thank Professor Dr. Katsuyasu Tachibana, dean of the Faculty of Fisheries at Nagasaki University, for his valuable help. We also are greatly indebted to various Turkish organizations, namely, the Department of Fisheries Technology and Engineering at Karadeniz Technical University, the Trabzon Fisheries Research Institute in Istanbul, the Trabzon fish market, and the Turkish Statistical Institute, as well as to various Japanese organizations, namely, the Tokyo University of Marine Science and Technology, the Tokyo Tsukiji wholesale fish market, the JICA, the JETRO office in Tokyo, Japan-Turkey Business Partnership Forum and the Embassy of the Republic of Turkey in Tokyo.

AUTHOR INFORMATION

Mahmut Munir Guzel, Graduate School of Fisheries Science and Environmental Studies, Nagasaki University 1-14 Bunkyo-machi, Nagasaki 852-8521, Japan. Corresponding Author: Tel: +818064428593. E-mail: mmg_01985@hotmail.com

Kazuhiko Kameda, Graduate School of Fisheries Science and Environmental Studies, Nagasaki University 1-14 Bunkyo-machi, Nagasaki 852-8521, Japan.

Naotoshi Yamamoto, Graduate School of Fisheries Science and Environmental Studies, Nagasaki University 1-14 Bunkyo-machi, Nagasaki 852-8521, Japan.

REFERENCES

1. The Case of Turkey. (2011). Fishery resources and international trade: The case of Turkey, January 31, 2011, p. 9.
2. Convention on Biological Diversity. (2010). Convention on biological diversity (CBD) and activities of Turkey coastal and marine biological diversity. p. 1.
3. Searoundus.org. (2012). Exclusive Economic Zones (EEZ). Retrieved from <http://www.searoundus.org/eez/>
4. European Environment Agency. (2010). Nature protection and biodiversity (Turkey). Retrieved from http://www.eea.europa.eu/soer/countries/tr/soertopic_view?topic=biodiversity
5. Turkstat, 2010: Sea Products Statistics of Turkish Statistical Institute, 2000-2010. Retrieved from http://www.turkstat.gov.tr/VeriBilgi.do?alt_id=47
6. Turkstat, 2011: Foreign Trade Statistics, 2000-2010. Retrieved from http://www.turkstat.gov.tr/VeriBilgi.do?alt_id=12
7. The Fishery Agency of Japan. (2011). Fisheries Policy Outline for FY2011 (White Paper on Fisheries, April 2010). Japan, the Fishery Agency of Japan.
8. H. Masuda, K. Amaoka, C. Araga, & T. Yoshino (Eds.). (1984), *The fishers of the Japanese archipelago* (p. 4). Kanagawa, Japan: Tokai University Press.
9. Ministry of Agriculture, Forestry and Fisheries. (2011a). Outline of forestry and fisheries cooperation. Retrieved from http://www.maff.go.jp/e/tokei/kikaku/monthly_e/index.html
10. Ministry of Agriculture, Forestry and Fisheries. (2011b). Monthly statistics: Forestry and fisheries. Retrieved from http://www.maff.go.jp/e/tokei/kikaku/nenji_e/85nenji/index.html
11. Nobuyuki, Y. (2011). Value chains of fishery products, Graduate School of Agricultural and Life Sciences, The University of Tokyo, p. 126.

12. Per Capita Consumption. (2010). Annual per capita consumption of fish. Retrieved from http://www.st.nmfs.noaa.gov/st1/fus/fus10/08_perita2010.pdf
13. Republic of Turkey Ministry of Economy. (2012). Pacific - Japan. Retrieved from <http://www.economy.gov.tr/index.cfm?sayfa=countriesandregions&country=JP®ion=6>
14. Trade Statistics of Japan. (2010). Trade Statistics of Japan Ministry of Finance. Retrieved from <http://www.customs.go.jp/toukei/srch/indexe.ht>