

Trends in Global, Indian and Regional Marine Products' Exports: A Comparative Study

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Abstract

Conventionally, any developing country or under developed country will make sincere attempts to boost themselves socially and economically. Economic activities will gradually lead to enhancement of the output of various goods and services in a country which will promote the growth of Gross Domestic Product (GDP). Besides, in the global market, as compared with the domestic business, the international business has a better scope to improve economic position. Exporting strategy has been a prominent one in international trade and commerce as it influences the GDP, inflation, interest and exchange rates and also promotes the foreign currency and revenue to the government. Amongst all the sectors, Fishery sector plays a key role, especially in the coastal areas of a country, as compared with other sectors. Fisheries and Allied Sectors, including the aquaculture, contribute to livelihoods for the people substantially. India is a not an exception on this front. Keeping in view, a systematic scientific enquiry into the status of the marine products worldwide becomes the need of the hour, especially in the coastal regions. The present study has been undertaken to make a comparative trend analysis of Global, Indian and Regional marine product's exports for ascertaining remedial measures.

Key Words: Exports, Marine Products, Fisheries and Allied Sectors, Socio-Economic Development

Introduction

Across the globe, socio-economic development of any country considerably depends on its industrial development. It does not only create new employment avenues to its educated youth and aspirants but also guarantees income and standard of living for them. In view of impossibility of providing full employment for poverty alleviation, any developing country is anticipated to leave no stones unturned in exploring alternative ways and means for an optimal use of its natural and human resources to achieve its socio-economic goals in the long run. Remarkably, it is an undeniable universal fact that the demand for the basic needs such as food, clothing and shelter will steadily and constantly grow corresponding to the growth of population throughout the world. Under this circumstance, it will become inevitable for such countries to opt for entrepreneurship development to accelerate the pace of growth and development of economy gradually. In order to attain the goals, all sectors of the national economy i.e. primary, secondary and tertiary, must strive very hard for extracting the maximum output from minimum and scarce resources. This efficient production function will, in turn, result in enhancement of GDP growth on one hand and thereby strengthen the socio-economic development on the other hand. During the process of its development both domestic and international businesses have been playing a crucial role universally. However, international business has a better scope than the domestic one in this aspect. Reportedly, the GDP growth rate of India prior to 1991 was 3.5 percent. It was having a close relationship with the contribution of export at the rate of 4.5 percent. Since 1991, especially after liberalisation era, the rate of exports had contributed about 11 percent to the GDP. Apparently, in order to maintain the overall health of Indian economy via balance of trade, exports and imports of goods and services become very essential. Such exports have an enormous potential to influence not only the rate of GDP but also the rate of

inflation, interest and the exchange rates. In turn, it may result in creation of new job opportunities, enhancement foreign currency reserves and also enhancement of Government revenue.

Amongst all the sectors, fisheries and Allied sectors play a pre-dominant role, especially in the coastal areas of any country, as compared with any other sectors. Several report reveal that fisheries and Allied Sectors, including the aquaculture, contribute to livelihoods for 800 million people and provide 3.1 billion people with 20 percent of their animal protein (FAO 2015), as well as micronutrients and essential fatty acids critical to cognitive and physical development (HLPE 2014).As one of the significant source of nutrients, the demand for fish is also likely to increase in varying degrees globally, in commensurate with the demand of the population for its consumption. It necessitates the imports and exports of fish products between the nations. In order to meet such growing demand for fish, particularly in developing countries, the quantum of production of fish may have to be doubled by 2030 (FAO 2014) for matching the demand. Evidently, many research studies have been carried out on the trends of export of marine products amongst the nations from time to time. Keeping in view, the current study has been undertaken on the topic entitled, “**Trends in Global, Indian and Regional Marine Products’ Exports- A Comparative Study**”.

Relevance of the Study

Fisheries sector plays a crucial role in the socio-growth and development of the country. So the fisheries sector has been considered as one of the prominent employment and income generators as it boosts the emergence of various allied sectors.

Reportedly, in three-quarters of the countries in the world, fishing sector has been contributing about 33 percent of protein requirements of a human body. Generally, fish is considered as one of the important sources of food for humans. According to the FAO report 2014, the output of fish, especially in developing countries, ought to be doubled by 2030 to meet its future demand. Undoubtedly, this endeavour of increasing the level of supply of fish to match its future demand becomes a challenge for a developing country like India. Hence, such countries are compelled to increase their annual outlay in research and development activities for assessing their role of exporting of marine products.

For attaining the overall economic growth and development, there is a need for constant assessment of the size of exports of marine products and its challenges globally, including India. Keeping in view the present study has been attempted to be described the Indian Marine Products Exports and its challenges.

Literature Review

The researcher has made sincere attempts to review the literature available on the current problem of investigation with the objective of identifying the research gap in the field of study. Few of them have been presented below;

AshisNandy & Raymond Owens (1977) attempted a research and compared the enterprising and non enterprising endeavours amongst the urban communities of Howrah in West Bengal. In their study, the researchers tried to identified the nature of psychological and social relationship of entrepreneurship in the community.

Athulya (2021), in her research paper entitled, '*How to Export Fish From India*' analysed the status of export of fish from India to different countries. Her study threw light on essential documents required for exporting such marine products.

Gaikwad .V. R. & Tripathi. R.N (1970),undertook a scientific enquiry on the entrepreneur in Tanakuregion of West Godavari, Andra Pradesh, India. Their study concentrated on the manufacturing units of the industrial magnet, Mullapadi Harishchandra Prasad and family.

*Gangadhara Rao. (1978)*in his research study investigated into the several factors influencing the entrepreneurs towards entrepreneurship in the coastal areas of Andra Pradesh, India. His study revealed that economic gain or profit was the predominant objective for taking up entrepreneurial ventures.

Further, it was also found in his study that the education and income were the most important factors influencing the entrepreneurs of the study area towards entrepreneurship.

Sharma K.L (1975) carried out a study on entrepreneurial performance of the interstate patterns by drawing samples from the population from the Indian States of Punjab and Uttar Pradesh, India. His study concluded by presenting a fact that socio economic background of the entrepreneurs play a vital role in promoting entrepreneurship in the study area.

Thomas Timberg (1978) conducted a survey to examine the role of Marwadi community in development of entrepreneurship in Northern India. The researcher found that the contribution of Marwadi community towards entrepreneurial growth was significant in the region.

Objectives of the Study

The following are the objectives of the present study.

- To make a comparative trend analysis of Global, Indian and Regional marine product's exports
- To highlight the contribution of India and Tamil Nadu (Region) towards the Global Marine Product's exports, and
- To suggest suitable measures for boosting the size of contribution to the Global marine products export in future.

Research Methodology

The current study is based on secondary data. The sources of data include the Published Annual Reports of various Departments associated with the Marine Product Exports at National and Regional levels. Besides, research articles, magazines, newspapers, project reports, internet etc., were also put at use.

The collected data was analysed with appropriate a statistical tool for drawing meaningful conclusion there-from.

Entrepreneurship Growth and Development in India: Its importance,

In general, there has been a significant contribution of entrepreneurship, especially after 1991 i.e. post liberalisation era, to the economic growth and development in India. The role of entrepreneurs in all sectors was felt very essential to boost the rate of growth of Indian economy at par with its counterparts in the world.

Entrepreneurial ventures not only result in economic gains to the entrepreneurs but also entail quality goods and services to the consumers. As a result, a business enterprise can achieve its broader goals of wealth maximisation via profit maximisation in the long run. In addition, such entrepreneurial activities lead to creation of job opportunities to the people and thereby ensure regular income and standard of living in the society. Over and above, it also enables a country to increase its national income through appropriate taxation modes.

In other words, the entrepreneurs are capable of bring out social changes in a traditional society by launching distinct goods and services to their consumers. In this way the modern production and marketing practices do gradually replaces the traditional ways and means of producing and marketing goods and services.

Similarly, entrepreneurs also considered as innovators according to the Schumpeterian's view. Accordingly, such innovative approaches of entrepreneurs are anticipated to create new projects and several others allied activities gradually. Undoubtedly, such entrepreneurial efforts lead to emergence of domestic and international businesses in various sectors.

Among them fishery sector has been contributing significantly to the growth of Indian economy. It is evident that this sector's production contribution was about 1 percent of the Gross Domestic Product (GDP) in India, according to a report on 08th January 2019 from the Press Information Bureau, Government of India under the Ministry of Agriculture and Farmer Welfare. Similarly there was an another report "The State of Fisheries and Aquaculture 2018" given by the Food and Agriculture

Organisation (FAO) on per capita fish consumption in India which was ranging from 5 to 10 kg. Besides, according to a report from the Food and Agricultural Organisation (FAO), SOFIA 2022, the contribution of India to World fish production in the year 2020 was 14.73 MMT to world the production of 179.00 MMT. Therefore the marine resources have an enormous scope and potential for export. The resources include aquaculture, coastal marine fisheries, inland fisheries etc. Further, the Department of Animal Husbandry under the Ministry of Agriculture and Farmer Welfare, Government of India has been launching and implementing several schemes grouped under “Blue Revolution Scheme” for attaining the overall development of the fisheries sector. Under the scheme, the developmental efforts were reportedly triggered upon boosting of the output and productivity, enhancing the fishermen’s livelihood and welfare. On 23rd October 2018 Rs 7522 Crore was approved by the Cabinet Committee of Economic Affairs (CCEA) for setting up of a Fishery and Aquaculture Infrastructure Development Fund (FIDF). Consequently, such infrastructure projects in fisheries sector were undertaken for development of fishing harbours, fish landing centers setting about diagnostic and aquatic facilities, transport facilities, fish market, cold storage etc, In India, the Department of Animal Husbandry, Dairying and Fisheries, Ministry of Agricultural Farmer Welfare, Government of India has extended financial assistance to the Fisheries sector during 2015 to 2019, to tune of Rs 1491.24 crore.

Over the above the National Fisheries Development Board was setup in India to

- focus on development of fisheries and aquaculture
- to conserve natural marine resources and ensure a sustainable management
- use the latest tools and technologies for achieving the optimum output and production efficiency in fisheries sector through research development activities and adopting the modern infrastructure mechanism for an effective management and utilisation of such techniques.
- to train the women in the marine sector and generate employment opportunities and ensure food and nutritional security through increasing the size of contribution of the fishery and its allied sector.

The National Fisheries Development Board (NFDB), since its establishment in 2006, has been introducing and monitoring many schemes for development of fisheries in the country. Such schemes include marine-culture, coastal aquaculture, seaweed cultivation, domestic marketing, and ornamental fisheries and so on.

A report from the Ministry of Statistics and Program Implementation, Government of India shows that the gross value added (in crore) by a fisheries economy during the period, 2011- 12 to 2020- 21 had increased from 8106946 (national GVA) to 18057810.

Fisheries Sector: An Engine for Economic Growth

According to the Fisheries Statistics 2020, the trend percentage contribution of GVA due to fisheries sector over the total GVA due to agriculture sector (current price) in India was Rs. 7.28 crore in 2018- 2019. It was also revealed in the report that the trend of percentage contribution of GVA due to fisheries sector goes on increasing steadily from Rs 4.53 crore from 291 to 6.67 crore between the years, 2011 – 2012 and 2017- 2018. The GVA (Rs in crore) by economic activity during the year 2011- 2012 to 2018- 2019 shows that the current basic price against fisheries was 212915 and the current price was 128011 in the year 2011 2012.

Export of Marine Products: At a Glance

1. At Global Level

From the global perspective, there is an undeniable fact that export of various products, including the fish products, has the highest potential to influence the foreign exchange earnings, level of inflation, exchange rates and interest rates. Such international business ventures in a global market do normally assist the countries to tackle their balance of payments (BOP) crisis as and when required.

In the long run, the exports of marine products do create new job opportunities and provide regular income to workforce in home and host countries. It gradually leads to promotion of their economic status via exports of fish products and its entrepreneurial ventures.

The contribution of various countries to the marine products' export (in quantity) and its trend during 2010-2022 have been provided in Table 1.a.

Table 1.a
Quantity of Marine Products' Export Trend during 2010—2022: Global Perspective at a Glance

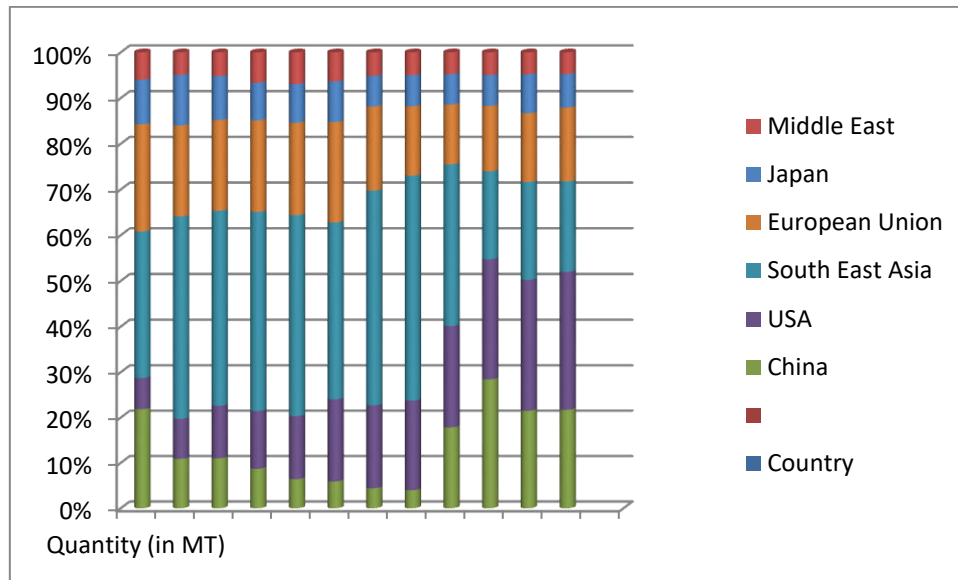
Co unt ry	Quantity (in MT)											
	Year											
	2010-2011	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-2020	2020-2021	2021-22
Chi na	159147	84515	87776	75783	59519	50042	45443	49701	225519	329479	218343	266989
US A	50095	68354	92447	110880	129667	153695	188617	247780	281913	305178	291948	372611
So uth Eas t Asi a	233964	343962	340944	380061	409931	328900	484819	616707	446966	223398	217710	243401
Eur ope an Un ion	170963	154221	158357	174686	188031	186349	189833	190314	165571	165773	152770	198484
Jap an	70714	85800	76648	71484	78772	75393	69039	85651	84080	78507	86814	90308
Mi ddl e Eas t	43983	38155	41419	58040	64608	53905	52973	62220	60232	57387	48606	58426
Ot her s	84225	87014	130623	112822	120716	97609	104224	124871	128278	129929	133319	139045

Source: Extract from Marine Products Export Development Authority, Kochi

Table 1.a shows that the participating countries in exports include USA, European Union, China, Japan, Middle East and Southeast Asia. Amongst the countries, the contribution of China to the marine products exports was the highest. The quantity of exports during the year 2021-2022 was 372611 MT. The contribution of Middle East towards fish products exports was the least. Its quantity of export was

58426MT worth 2079.12 crore only. It is further observed that there is a fluctuating trend in the global marine products' export by all the countries.

The trend of Marine Products (in Quantity) during 2010-2022 has been represented graphically in Chart 1.a



The value of fish products' export and its trend from the global perspective has been presented in Table 1.b

Table 1(b)
Value of Marine Products' Export Trend During 2010-2020: Global Perspective at a Glance

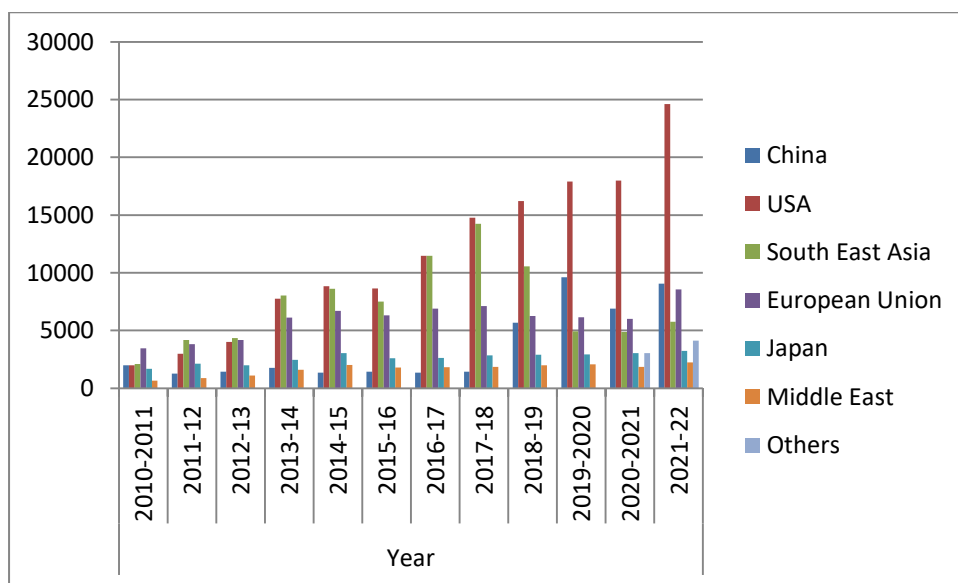
Co unt ry	Value (in Crore)											
	Year											
	2010-2011	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-2020	2020-2021	2021-22
Chi na	1977.81	1259.23	1444.86	1766.72	1349.00	1432.25	1341.94	1448.03	5672.76	9617.44	6908.63	9056.70
US A	1990.26	2977.53	4026.48	7744.67	8830.12	8633.40	11482.16	14769.83	16220.00	17904.37	17990.40	24603.34
So uth Eas t Asi a	2114.48	4193.27	4357.28	8046.59	8620.85	7499.16	11461.83	14250.26	10561.31	4929.90	4876.05	5747.98
Eur	3459.40	3810.417	6129.6129	6715.5631	6892.16892	7115.97115	6256136.71	6022.6022	8570.058570			

ope an Un ion		44	6.4 2	69	8	1.4 5	9	6	6.2 0		83	
Jap an	1683.39	2140. 67	199 9.5 9	2463. 83	3040.2 6	261 0.7 4	2621.3 7	2846.3 0	291 9.7 5	2920.28	3033. 36	3242.94
Mi ddl e Eas t	670.35	894.3 8	111 3.5 4	1599. 37	2020.8 6	179 3.6 7	1830.5 8	1849.1 0	197 9.3 4	2079.12	1843. 39	2235.53
Ot her s	1005.77	1321. 72	173 8.2 9	2462. 40	2864.9 3	214 0.1 6	2240.8 3	2827.4 0	298 0.0 2	3075.03	3046. 32	4129.95

Source: Extract from Marine Products Export Development Authority, Kochi

Table 1.(b) reveals that the USA, amongst all the participating countries, is occupying the highest position in terms of value in marine product export during 2010- 2022. Its trend of exports of the products has also been found to be quite positive and encouraging, while the trend is highly fluctuating during the period in case of all other countries. As in case of exports in terms of quantity, Middle East share of the exports of the fish products is the lowest in terms of value comparatively.

The trend of Marine Products (in Value) during 2010-2022 has been represented graphically in Chart 1.b



2. At National Level

A report from IBEF, 2022 says that India is having prominently major eight marine product producing States namely Andhra Pradesh, Gujarat, Karnataka, Kerala, Maharashtra, Odisha, Tamil Nadu, and West Bengal. Amongst them, Andhra Pradesh is considered as the largest producer of fish products in 2019- 2020. Its exports of marine products account for 35 percent of the Indian exports. The report further adds that India is the third largest marine product producing nation which accounts for about 7.96 percent of the total world marine products production. According to the report from the Ministry of Commerce

and Industry, Department of Commerce, Government of India, India has been identified as the fourth largest marine products exporting country in the world. The major exports markets of India include USA, China, EU, South East Asia, Japan and Middle East. Many reports revealed that the European Union has been the top exporter of marine products worldwide in the year 2020. Its value was 36.2 billion US Dollar, followed by China, the second largest exporter of the products contributing about 20.8 billion US dollar. The recent trend of export of marine products in terms of quantity and value during 2016-2020 has been tabulated in Table.2

Table 2 Quantity and Value of Exports of Marine Products (in Million) Trend during 2016- 2022: National Perspective

Year	Quantity in Tons(in lakh tonnes)	Value (in Crore)	USD(in Million)	* Change in Quantity (in Lakh tonnes)	* Change in Value ((in INR)	Change in Value (in USD)
2016-17	11.35	37870.90	5777.61	-	-	-
2017-18	13.77	45106.89	7081.55	2.42	7235.99	1303.94
2018-19	13.93	46589.37	6728.50	2.58	8718.47	950.89
2019-20	12.90	46662.85	6678.69	1.55	8791.95	901.08
2020-21	11.49	43720.98	5956.93	0.14	5850.08	179.32
2021-22	13.69	57586.48	7759.58	2.34	19715.58	1981.97

*Source: Marine Products Export Development Authority, Kochi * Computed Figures*

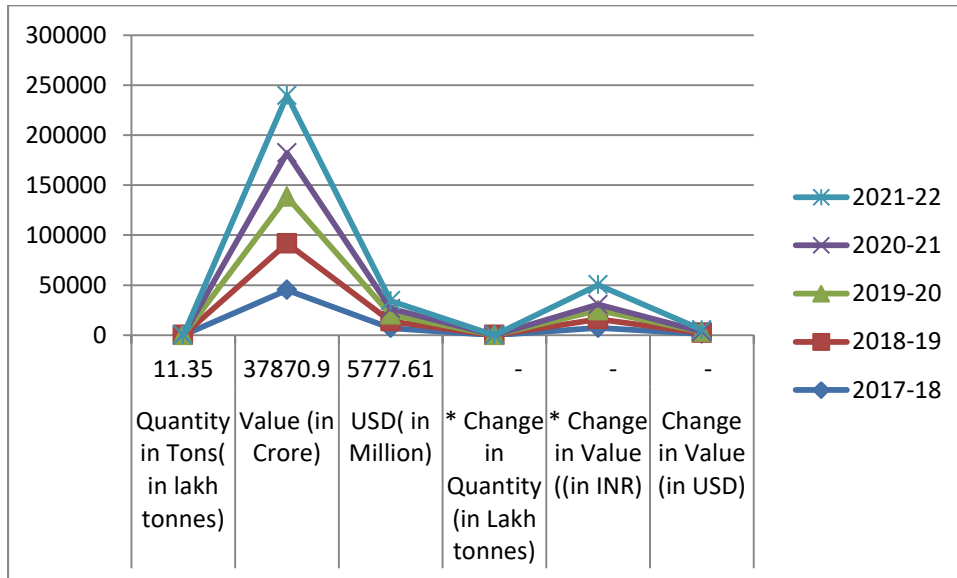
Table 2 reveals the trends of Marine Products' Exports during 2016-2022 from the national perspective. The report of the Marine Products Export Development Authority, Kochi, further, shows that the trend of export of fish and fish products in US dollar goes on increasing between the year 2010 – 2011 and 2014-2015. Similarly, the value of exports has also increased from 2856.92 dollars in 2010- 2011 to 5511.12 US dollars in 2014-2015.

Though the figure has come down to 4687.94 dollar in 2015 – 2016, it rose up further to 5777.61 US dollars and 7081.55 US dollars in 2017- 2018 and 6728.50 US dollars in 2018- 2019 before it declined slightly in the year 2019 -2020. It showed the value of exports of fish and fish products was 6678.69 dollar only in the latter year. However, the quantum of exports of fish and fish products had increased from 11.35 tonnes to 12.90 lakh tonnes between the period 2016 -2017 to 2019 -2020. Its value was Rs 12901.47 crore and Rs 46662.85 crore in the respective years.

If the data on the recent past 5 years is analyzed, it is noticed that the change in quantity is the highest in 2018-19. Further, it declines in 2019-20 but its value is higher in Indian Rupees as compared with its preceding year. On contrary, its value is the highest in 2017-18 (in USD), as it is subject to exchange rate fluctuations between the Indian Rupee and the US Dollar.

During the period 2020-2022, the quantity of exports of marine products has come down drastically in 2020-21 before it rose up from 0.14 lakh tonnes 2.34 lakh tonnes in2021-2022. Similarly, the value of exports (INR) did come down from Rs 8791.95 crore to 5850.08 crore in 2020-21 as compared with its preceding year 2019-20. However, the value of exports of fish products has almost tripled in 2021-22 which was evident. Therefore, its value has gone uptoRs 19715.58 crore. The same trend was prevalent even in case of change in value of exports in terms of US dollar during 2020-2022.

The change in Exports of Marine Products (in Quantity and Value) has been given Chart.2



According to a report from Press Information Bureau, Government of India, Ministry of Commerce and Industry, India, exported 1369264 MT of fish products worth 57586.48 Crore (USD 7.76 Billion). The value of its exports had risen by 31.71 percent in US dollars as its quantity of exports had gone up by 19.12 percent comparatively it was evident that India Food Export 1146510 MT of marine product worth Rs 43720.98 Crore (USD 5956.93 million).

Table 3.a Indian Major Port Marine Product Exports in 2018- 2020

Port	Value Quantity 2018-2019		Value Quantity 2019-2020		*Difference Q-Q	Growth	Increase/Decrease		Rank
	Value	Quantity	Value	Quantity			+	-	
Kattupalli/Ennore	778.84	18205	1220.50	26174	7969	43.78	✓		I
Krishnapatinam	4644.12	86248	5134.31	97708	11460	13.29	✓		II
Calcutta	5227.73	116167	5308.02	128150	11983	10.32	✓		III
Vizag	11913.07	221374	13139.73	241783	20409	9.22	✓		IV
Tuticorin	2768.77	55251	2942.64	57159	1908	3.45	✓		V
Chennai	2040.32	55296	2045.57	51539	-3757	-6.79		✓	VI
Pipavav	4844.03	293835	4556.19	257402	-36433	-12.4		✓	VII
JNP	4811.12	158213	4359.71	134766	-23447	-14.82		✓	VII I
Kochi	5861.55	180457	4904.49	146038	-34419	-19.07		✓	X
Mangalore/ICD	1886.43	141980	1358.89	1358.89	-46223	-32.56		✓	XI
Others	1813.39	65532	1692.80	53176	-12356	-18.85		✓	IX

Source: Extract From Marine Products Export Development Authority, Kochi

Table exhibits that there are 11 major ports and various minor unnamed ports under 'others' in India viz Calcutta, Chennai, J N P, Kochi, Krishnapatinam, Kattupalli/ Ennore, Mangalore, Pipavav, Vizag, Tuticorin and 'Others'. According to the MPEDA report 2021 the term others in table includes Kakinada, Mundra, Goa, Mumbai, Hazira, Trivandrum, Haldia, Hyderabad, Ahmedabad, Bangalour,

Ghogadanga, Mahadipur, Madurai, Port blair, Hill land customs, Veraval, Surat(Inhza),Calicut, Delhi, Trichy, Kandla, Agartala, Bhubaneswar airport, porbandar, paradeep, Karwar, NSICT, Karimgan, Mid Sea, OKHA. Apparently, 6 out of 11 ports have been contributing positively to the export of marine products by India in 2019-2020, as compared with its preceding year 2018-19 while the contribution of other ports are absolutely negative. Therefore, the ports making positive contribution towards the marine product's export include Kattupalli/Ennore, Krishnapatinam, Calcutta, Vizag, Tuticorin, Chennai, Pipavav, JNP, Kochi, Others and Mangalore/ICD who contribute to exports (in growth percent)-32.56, -19.07, -18.85, -14.82, -12.4, -6.79, 3.45, 9.22, 10.32, 13.29,and 43.78 respectively.

The above analysis, further throws light on the fact that the contribution of Kattupalli/ Ennore port towards the export is the highest whereas the contribution of Mangalore/ ICD port is the least. Notably, the contribution to the export of various other minor unnamed ports has also been negative.

The above data is presented in Chart 3.a

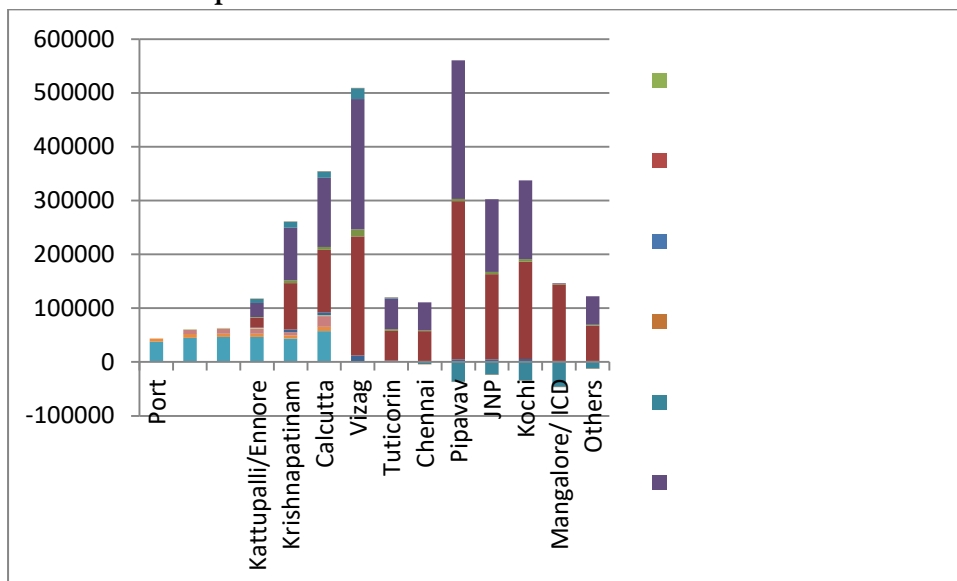


Table 3.b Indian Major Port Marine Product Exports in 2020- 2022

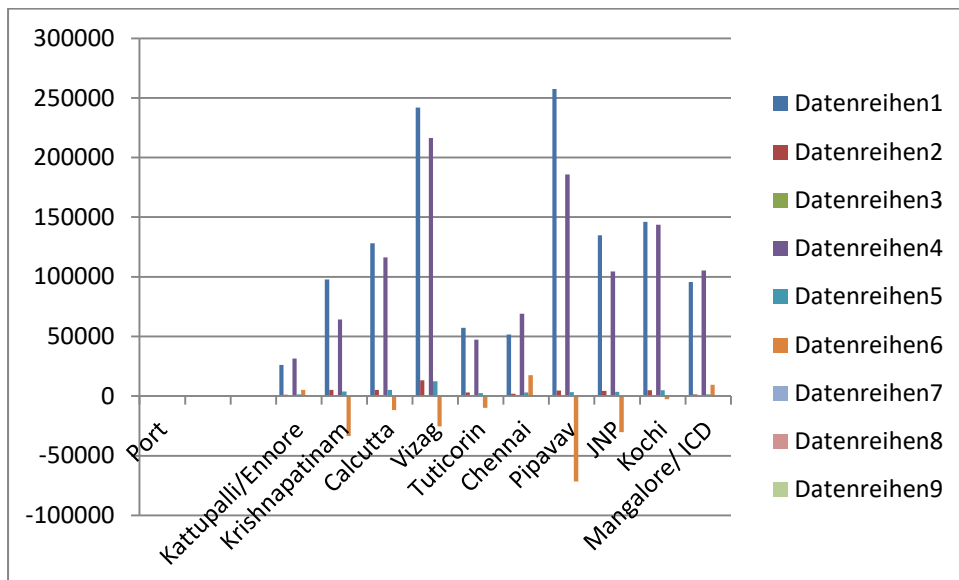
Port	Value Quantity 2020-2021		Value Quantity 2021-2022		#Difference V-V	#Growth	#Increase/Decrease		#Rank
	Quantity	Value	Quantity	Value					
Kattupalli/Ennore	26174	1220.5	31421	1533.49	5247	2.00	✓		III
Krishnapatinam	97708	5134.31	64230	3762.21	-33478	-3.04		✓	X
Calcutta	128150	5308.02	116419	5112.77	-11731	-0.92		✓	VI
Vizag	241783	13139.73	216457	12362.71	-25326	-1.05		✓	VII
Tuticorin	57159	2942.64	47299	2414.66	-9860	-1.73		✓	VII I
Chennai	51539	2045.57	68973	3147.48	17434	3.38	✓		II
Pipavav	257402	4556.19	185817	3330.9	-71585	-16.17		✓	XI
JNP	134766	4359.71	104435	3569.81	-30331	-2.25		✓	IX

Kochi	146038	4904.49	143552	4994.75	-2486	-0.17		✓	V
Mangalore/ ICD	95757	1358.89	105278	1539.45	9521	0.99	✓		IV
Others	65460	1949.03	530437	18010.39	16061.36	10.00	✓		I

Source: Extract From Marine Products Export Development Authority, Kochi
Computed Figures

Table exhibits that the Chennai port’s contribution towards the national export of marine products is the highest and positive, followed by Kattupalli/ Ennore and Mangalore / ICD which are ranked I, II and III respectively. Further, it is also clear that most of the ports’ contribution towards the marine products’ exports is highly discouraging, as it is evident from the ranks secured in table 3.b. Of all the ports, the contribution of Pipavav Port’s contribution is insignificant in terms of marine product exports from the national perspective. It is also worth- mentioning the Calcutta port falls under ‘neither good nor bad’ category in terms of fish products exports which occupies the center position (V rank) in the ranking list.

The above analysis shown in chart 3.b



3. At State Level

Export of Marine products in Tamil Nadu; At a Glance

According to Animal Husbandry, Dairying, Fisheries and Fishermen Welfare Department, Government of Tamil Nadu 2022-23, the State of Tamil Nadu, having the second longest coast line in the country covering about 1076 km, It is spreading across 14 coastal districts of the State. The report further reveals that the inland marine sector is currently supporting the livelihood of 2.36 lakh of inland fisher folk of Tamil Nadu.

The item- wise Export of Marine Products in the State in tabulated in

Table 4 Item-wise Export of Marine Products During 2010-2020

Product	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	*Trend
Frozen Shrimp	151465	189125	228620	301435	357505	373866	434486	565980	614145	652253	590275	728123	I
Frozen Fish	312358	347118	343876	324359	309434	228749	296762	353192	338933	223318	188130	226586	F
Frozen Cuttle Fish	59159	54671	63296	68577	82353	65596	63320	69183	60210	70906	59292	58992	F
Frozen Squid	87579	77373	75387	87437	69569	81769	99348	100845	101101	87631	61176	75750	F
Dried Item	79059	53721	72953	67901	70544	43320	61071	88997	95296	84417	85661	73679	F
Live Item	5208	4199	4373	5080	5488	5493	6703	7034	10179	7287	4379	7032	F
Chilled Items	21118	21278	26868	19755	31404	33150	31815	19501	17207	21202	17622	21689	F
Others	97145	114538	112841	109212	124947	113949	141442	172512	155487	142638	142975	177414	F

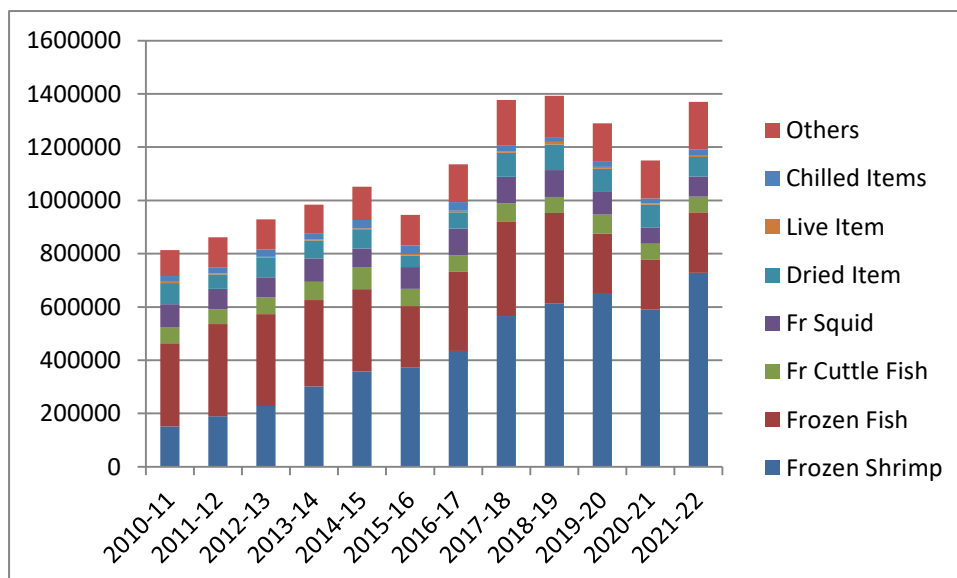
Source: Extract From Marine Products Export Development Authority, Kochi

* Observed Item-wise Trend

I = Increasing D = Decreasing F = Fluctuating

Table 4 reveals that the item-wise export of marine products during the 2010-2020 which include Frozen Shrimp, Frozen fish, Frozen Cuttle fish, Frozen Squid, Dried item, Live item, Chilled items and Others. It proves that the demand for Frozen Shrimp goes on increasing during the period, 2010 – 2020. However, it showed a declining trend in 2020-21 before it rose up again in 2021-22. The demand for the remaining products is fluctuating.

The same has been graphically represented below in Chart 4.



The trend of the export of fish and fish products in Tamil Nadu during 2008 – 2022 has been tabulated in Table 5. below;

Table 5

Export of Fish and Fish Products in Tamil Nadu(in lakhs) During 2008-2021: A Snap Shot

Year	Quantity (Tonnes)	Value(in Lakhs)	*Changes (in Lakhs)	*Overall Change (in percentage)	*Trend	
					Increase (+)	Decrease (-)
[1]	[2]	[3]	[4]	[5]	[6]	[7]
2008-09	68397	177220.00	-	-	-	-
2009-10	73327	198207.47	20987.463	11	✓	
2010-11	86181	286019.00	108799.00	61	✓	
2011-12	80715	302873.00	125653.00	70	✓	
2012-13	86585	333178.00	155958.00	88	✓	
2013-14	96429	531629.00	354409.00	199	✓	
2014-15	93477	503817.86	326597.86	184	✓	
2015-16	85063	418406.00	241186.00	136	✓	
2016-17	88257	434178.00	256958.00	144	✓	
2017-18	116664	542030.00	364810.00	205	✓	
2018-19	128845	559149.85	381929.00	215	✓	
2019-20	75700	NA	-	-		
2020-21	114900	43717.26	133502.74	305		✓
2021-22	110023	5565.46	171654.54	3084		✓

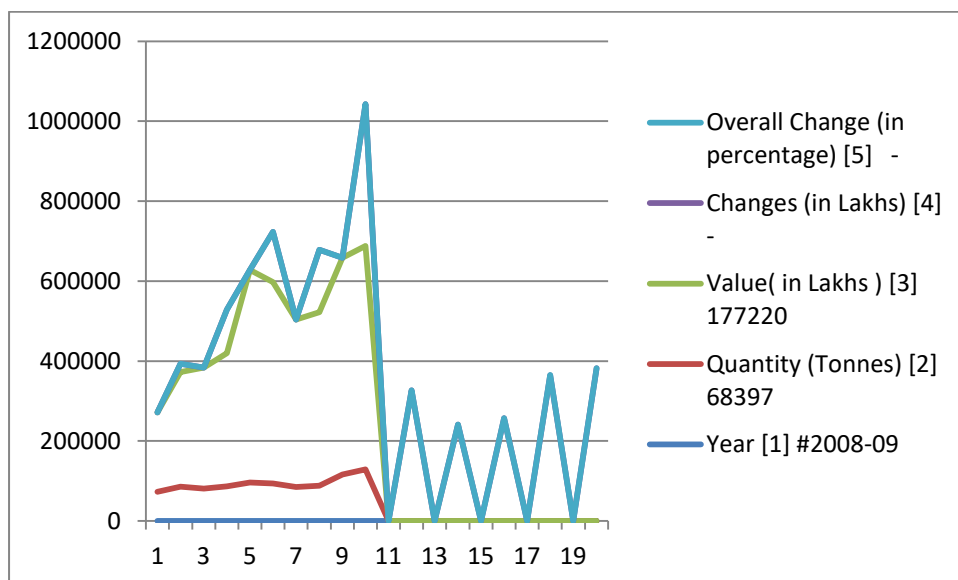
Source: Commissioner of Fisheries, Chennai-35 # Base Year * Calculated Figures NA NA = Not available

Table 5 reveals that the quantity of export of fish and fish products in Tamil Nadu goes an increasing constantly during the period, 2008 to 2018. However, as compared with the previous year 2009 to 2010. The quantum of exports of the fish produced is not sizable and remarkable in the year 2010 to 2011. It is obvious from the data in the table that the percentage of change in value of the exports had risen from 61 percent to 70 percent comparatively it may be considered as a meagre change as compared to the base year 2008 to 2009 in which the percentage of export was increased from 11 percent to 61 percent i.e. more than 5 times. Similarly, a slight variation in the quantum of increase between the years, 2010 to 2011 and 2011 to 2012 which constitute only 18 percent. Further, it was also observe that the quantum of export was more than taxable in 2012 to 2013 as compared with its previous year 2011 to 2012 it is clear from that data that the percentage was increased from 88 to 199 between the durations. Its further analysis shows that the quantity of exports of the fish products as shown a declining trend consecutively for couple of years following the year 2012 to 2013. It is apparent from the data that the percentage of export has drastically come down from 199 percent to 136 percent as compared with a base year 2008 to 2009. There

after a positive change in noticeable in the quantum of exports for this subsequent period of these years since 2014 to 2015. Therefore, the percentage of exports was 144, 205, and 215 in the years 2015 to 2016, 2016 to 2017, 2017 to 2018, to 2018-2019 respectively.

From the above analysis it may be inferred that the overall trend in fish and fish's products export was studiedly increasing during decade 2008 to 2018. During the span of 10 years, it was also witnessed that there is a fluctuating trend in the exports in certain years.

It may be graphically depicted as shown in Chart.5.



Findings of the Study;

The following are the key findings of the study ;

- The participating countries in exports include USA, European Union, China, Japan, Middle East and Southeast Asia. Amongst the Countries, the contribution of China to the marine products exports was the highest.
- Its quantity of exports during the year was 329479 MT worth Rs 9617.44 Crore. The contribution of Middle East towards fish products exports was the least its quantity of 57,387 MT worth 2079.12 Crore only.
- The trend of export of fish and fish products in US dollar goes on increasing between the year 2010 – 2011 and 2014- 2015.
- The value of exports has also increased from 2856.92 dollar in 2010- 2011 to 5511.12 US dollar in 2014-2015. The recent trend of export in terms of quantity and value during 2016-2020
- 4687.94 dollar in 2015 – 2016, it rose up further to 5777.61 US dollars and 7081.55 US dollars in 2017- 2018 and 2018- 2019 respectively before it declined slightly in the year 2019 -2020.
- The value of exports of fish and fish products was 6678.69 dollar only in the latter year. However, the quantum of exports of fish and fish products had increased

from 8.13 tonnes to 12.90 lakh tonnes during the period 2010 -2011 to 2019 -2020. Its value was Rs 12901.47 Crore and 46662.85 Crore in the respective years.

- The annual growth rate percentage (in value) of export of fish and fish products goes on decreasing evidently as its value was 28.39 percentage in 2010- 2011 which had decreased to 0.16 percent in 2019 – 2020.
- There are 11 major ports and various minor unnamed port under others in India viz Calcutta, Chennai, J N P, Kochi, Krishnapatinam, Kattupalli/ Ennore, Mangalore, Pipavav, Vizag ,Tuticorinand Others.
- Apparently, 6 out of 11 ports have been contributing positively to the export of marine products by India in 2019-2020, as compared with its preceding year 2018-19 while the contribution of other ports are absolutely negative.
- The ports making positive contribution towards the marine product's export include Kattupalli/Ennore, Krishnapatinam, Calcutta, Vizag, Tuticorin, Chennai, Pipavav, JNP, Kochi, Others and Mangalore/ICD whose contribute to exports (in growth percent) -32.56, -19.07, -18.85, -14.82, -12.4, -6.79, 3.45, 9.22, 10.32, 13.29,and 43.78 respectively.
- The further throws light on the fact that the contribution of Kattupalli/ Ennore port towards the export is the highest whereas the contribution of Mangalore/ ICD port is the least.
- The contribution to the exports of various other minor unnamed ports has also been negative.
- Quantity of export of fish and fish products in Tamil Nadu goes on increasing constantly during the period, 2008 to 2018. However, as compared with the previous year 2009 to 2010. The quantum of exports of the fish produced is not sizable and remarkable in the year 2010 to 2011.
- The percentage of change in value of the exports had risen from 61 percent to 70 percent comparatively. It is a meagre change as compared to the base year 2008 to 2009 in which the percentage of export was increased from 11 percent to 61 percent i.e. more than 5 times. Similarly, a slight variation in the quantum of increase between the years, 2010 to 2011 and 2011 to 2012 which constitute only 18 percent.
- The quantum of export was more than taxable in 2012 to 2013, as compared with its previous year 2011 to 2012. It is clear from the data that the percentage was increased from 88 to 199 between the durations.
- The quantity of exports of the fish products as shown a declining trend consecutively for couple of years following the year 2012 to 2013.
- The percentage of export has drastically come down from 199 percent to 136 percent as compared with a base year 2008 to 2009.It is a positive change in noticeable in the quantum of exports for this subsequent period of these years since 2014 to 2015.
- The percentage of exports was 144, 205, and 215 in the years 2015 to 2016, 2016 to 2017, and 2017 to 2018 respectively.

The overall trend in fish and fish's products export was steadily increasing during the decade 2008 to 2018. During the span of 10 years, it was also witnessed that there is a fluctuating trend in the exports in certain years.

Suggestions and Recommendations: Based on the current study, the following suggestion has been made;

- It may be ensured that there is a balance between the use of modern and traditional ways of conservation of the resource (ocean) for sustainable growth in marine products exports.

- Political interferences' may be curtailed for lubricating the wheels of the export business.
- Government may launch regional - specific training programs on need basis to promote the level of awareness amongst the budding entrepreneurs.
- Financial assistance may be provided to the needy entrepreneurs in the form of venture capital for starting up of new businesses.
- Cold storages at affordable costs may be created to curtail wastages of fish products.
- Fishery and its allied sectors may be encouraged at micro level initially and expansion on the same thereafter at macro level.

Limitations and scope of the study : The present study has the following limitations;

- Limited primary and secondary data is used.
- Production aspect of the marine products has not been considered.
- The study is extensive nature but not an intensive one.
- Data on export of marine products pre and post study period (2008-2018) have been ignored.
- Pre- dominantly the study is descriptive. Rather, it is not an analytical enquiry.
- The study is confined to a single country only, India. Therefore, it is not comparative.
- The current study is focusing on comparative analysis of trends in Global, Indian and Regional marine products only no other dimension are considered for further analysis.

Taking into consideration the above limitations, there is an enormous scope for future researches on this phenomenon. In other words mere depth researches on the contribution of fishing sector to the economic growth of our country/ globe may be undertaken by the budding researchers to add more knowledge to the existing literature of the research area.

Conclusion

Fishery sector contributes substantially the GDP growth of Indian economy. It has a tremendous potential to generate the employment avenues and entrepreneurship development. In other words, it has a better scope for domestic business and international business as well. The revenue earned from Indian marine products exports contributes to the Indian economy and also helps our country to overcome the BOP crisis via foreign exchange proceeds. Keeping in view, such mode of entry (exports) into international business must not be ignored in Indian context in developing country like India. Appropriate government policies and regional specific schemes, in consultation with the entrepreneurs dealing in marine products, may be yielding better results in future.

References

1. Gaikwad, V.R., and Tripathi, R.N. (1970); Socio- Psychological Factors Influencing Industrial Entrepreneurship in Rural Areas, National Institute of Community Development, Hyderabad, May, 1970.
2. GangadharaRao, N., Entrepreneurship in Industrial Estates (1978); A Study with Special Reference to coastal Andra, Research work (Ph.D,) submitted to the Andra University, Waltair, April, 1978.
3. Sharma, K.L. (1975); "Entrepreneurial Performance in Role Perspective, Abhinav Publications, New Delhi, 1975.
4. Thomas A. Timberg (1969); "Industrial Entrepreneurship among the Trading Communities of India. How the Pattern Differs, Economic Development Report, No.126, July, 1969.
5. Sethubalan P. (2019) "Production of Marine Fishing in Nagapattinam District of Tamilnadu" www.iosrjournals.org Volume 21, Issue 3.Ser VI (March.2019), PP 51-60

6. Sharma, K.L. (1975); "Entrepreneurial Performance in Role Perspective, Abhinav Publications, New Delhi, 1975.
7. Annual Report of The Marine Products Export Development Authority, 2017-2018, retrieved from www.mpeda.gov.in on 10/11/2022.
8. Annual Report of The Marine Products Export Development Authority, 2021-2022, retrieved
9. The Marine Products Export Development Authority (MPEDA), 2023, retrieved from mpeda.gov.in on 5/4/2023
10. Ministry of Commerce and Industry, Department of Commerce, Government of India, retrieved from Commerce.gov.in on 5/4/2023
11. Department of Fisheries, Ministry of Fisheries, Animal Husbandry and Dairying, Government of India (2021): "Entrepreneur Models in Fisheries and Aquaculture under PMMSY. nfd.gov.in
12. The Policy Note 2022-2023 Animal Husbandry, Dairying, Fisheries and Fishermen Welfare Department, Government of Tamil Nadu 2022-23.

Port-wise Indian Exports of Marine Products

Kattupalli Port



Source www.google.com

Krishnapatnam Port, Nellore, Andhra Pradesh, India



Source : www.facebook.com

Calcutta Port



Source: www.google.com

Vizag Port



Source: www.google.com

Tuticorin Port



Source: www.google.com

Chennai Port



Source: www.google.com

Pipavav Port



Source: www.google.com

JNP Port



Source: www.google.com

Kochi Port



Source: www.google.com

Mangalore Port



Source: www.google.com