

A Descriptive Study on Challenges & Opportunities Faced by Fishery Sector's in India

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Abstract:- Today Indian Fishery sector shows the tremendous growth and fishery sector plays vital role while providing employment opportunity to millions of people in the country. At present Indian fishery sector contribute 6.5% of global fish production and 5% of global fish trade. Fish and fish production of the country total accounted for 1% GDP in January 2019. The fish production is facing steady growth and has proved that there is 17 fold increases i.e. in 1950-51 the fish production is 0.75 MMT and in 2017-18 it was 12.6 MMT it is an all time high fish production achieved by India. This paper deals with the year wise export performance from 2005-2017, item wise export performance with percentage of growth and challenges as well as opportunities faced by fishery sector particularly fishermen in India. This paper suggest that government must entitled the fishermen community and arrange proper facility for their life time security.

Key words: Fishery sector, aquaculture, agriculture, export performance, fisherman.

INTRODUCTION:

Agriculture is a backbone of Indian economy, besides fisheries and aquaculture sector plays a vital role in development of Indian economy as well as today in Indian agriculture fisheries are a sunshine sector. India plays second largest producer of fish in the world with annual production of 9.06 million metric tonnes next to china. India blessed with vast coastline it occupies 8,118 km, today fishing sector plays one of the major industry which employees more than 14.5 million people and helps in increasing nutritional supply of food, generate adequate revenue to nation, huge export potential and play a big source of earning foreign exchange to our country. At present, India is the second largest producer of fish in the world with 13.7 MMT fish production with the value of Rs.47, 620 crore in 2018-19 and first in inland fish production with 65% of production in this 50% of production from culture fish. Agriculture is act as backbone of Indian economy but in agriculture fish and fish products export are defined as one of the largest sector which contributes 11.9% in 2017-18. Indian fish are exported to major developed countries in the world. The fishery sector acts as a source of large section of population comes under below poverty line especially fishermen.

OBJECTIVE OF THE STUDY:

- i. To examine the product wise export performance and year wise growth of marine products in India.
- ii. To analyse the challenges and opportunities faced by Indian fishery sector and fishermen.

REVIEW OF LITERATURE:

B. Ganesh Kumar, K.K. Datta et al. (2008), auction system is a primary process in daily fish activity. But every state has followed separate marketing policies in India. Due to lack of awareness fisherman have no knowledge in price list so middle men role is very important in fishing activity. The study concluded that everyone can follow uniform policies to avoid interaction of middlemen and profit is directly go to fishermen.

Capt Sricharan Y. Kaza and Dr. CH. Venkataiah (2012), in fishery sector when compare to past years 2010 and 2011 is boom period while using Reefer containers (VCTPL) for export activities. Due to involvement of modern technology the containers were enlarged in size with quality handling system, transportation system, modern processing plants, testing labs and so are facing development in their structure.

Sanjida Binte Islam and Dr.Md.Mamun Habib (2013), each and every stage of industry supply chain is important for all activities. The supply chain in fishery sector is very important because the products are perishable in nature. The six aspects of supply chain are inventory, information, transportations, sourcing, pricing and adequate facilities. The timely delivery as well as timely shipment to international market and local markets to avoid contamination.

S.Pavithra, P.S.Ananthan, M.Krishnan (2014), the shrimp exported from India is started in 1991-2011 but in 1992 there is decrease in shrimp export then interaction of China and Indonesia it will changed the unit value may start decline in major market. For good quality, breeding and hygienic nature Indian shrimp has continued demand in International market.

Anjana V.M and Dr. Rosa K.D (2015), in every year there is steady increase in fishery export of our country. The product frozen fish and frozen shrimp have ranked first position in India and South East Asia is largest importer of our country product. For improvement in the government should follow stable marketing policies to reach all over the world.

Dr. A. Asok and R. Saranya (2016), the fishery sector is major contribution in our country but at the same time the fishery commodity is always laying under the poverty line because of their hereditary occupation. Most of them are uneducated but with their hard work and involvement they catch high value species but sold it for very low price without the knowledge of grading system here middlemen are act as king makers.

Anoy V.P. and Dr.K.V.Raju (2016), after the WTO, EU, US involvement and continue restriction towards fish products. There is a change in market position for fishing industry, due to heavy competitions every exporter has start export good hygienic and high quality fish products in Kerala.

Shyam .S.Salim et al. (2017), most of young generations are starting migrate to other works because of high risk and life security. To change the position the government must take strict action against fishery community and provide proper facilities for their income as well as for their security to avoid migration.

Aswathy .N, Narayanan Kumar, Somy Kuriakose and Rekha J Nair (2018), by the involvement of latest technology high speed engine were developed. With help of technology fish capturing rate is high and the price also high but it not enough for fisherman. Due to continue increase in diesel prices and ice prices the fishermen earning is very low.

K.Radhakrishnan et al. (2018), due to implement of policies and conflict between nations there is decline position for Indian seafood in 1990. Then new trade policies were implemented the decline position changed and there is continue growth and demand for fishery products from India. Due to latest technology the cage culture and aquaculture were increasing day by day and export also increases.

METHODOLOGY:

This present study is based on secondary data. The data are collected from publications of Marine Product Export Development Authority (MPEDA), newspapers, websites, wikipedia and journals. For analysis CAGR (Compound Annual Growth Rate) method is used.

OBJECTIVE I

Item wise Export of Marine products:

Before 1960, India has exported dried items to major fish markets to our neighbouring countries like Singapore, Sri Lanka, Myanmar etc., after the development of technology the situation was changed from dried items to frozen items like frozen shrimp, frozen fish, frozen cuttle fish, frozen squid, dried items, live items, chilled items and others.

Table 1. Shows the item wise export during the year 2015-2016 and 2016-2017

| Items | 2015-2016 | | | 2016-2017 | | | Growth Rate % | | |
|--------------------|-----------|----------|---------|-----------|----------|---------|---------------|-------|-------|
| | Q | V | \$ | Q | V | \$ | Q | V | \$ |
| Frozen Shrimp | 373866 | 22468.12 | 3096.68 | 434486 | 24711.32 | 3726.38 | 16.21 | 9.98 | 20.33 |
| Frozen Fin Fish | 228749 | 3462.25 | 529.85 | 296761.88 | 4460.9 | 672.47 | 29.73 | 28.84 | 26.92 |
| Frozen Cuttle Fish | 65596 | 1636.11 | 250.31 | 63320 | 1944.5 | 292.73 | -3.47 | 18.85 | 16.95 |
| Frozen Squid | 81769 | 1615.21 | 247.53 | 99348 | 2575.29 | 388.64 | 21.50 | 59.44 | 57.01 |
| Dried items | 43320 | 725.58 | 111.57 | 61071 | 871.74 | 199.77 | 40.98 | 20.14 | 79.05 |
| Live items | 5493 | 308.81 | 47.77 | 6703 | 403.75 | 61.05 | 22.03 | 30.74 | 27.80 |
| Chilled items | 33150 | 809.5 | 124.51 | 31815 | 769.81 | 116.02 | -4.03 | -4.90 | -6.82 |
| Others | 113949 | 1817.87 | 279.71 | 141442 | 2133.59 | 320.54 | 24.13 | 17.37 | 14.60 |
| Total | 945892 | 30420.83 | 4687.94 | 1134948 | 37870.9 | 5777.61 | 19.99 | 24.49 | 23.24 |

Source: compiled by author based on MPEDA data

Q: Quantity in Tones, V: value in Rupees, \$: USD Million

The table 1 shows the highest annual growth of frozen fin fish in 2016-2017 increased by 29.73% quantity, 28.84% rupee value and 26.92% in USD \$ respectively. Secondly live items are increased by 22.03%, 30.74%, 27.80% as quantity, value in rupee and USD \$ respectively. Frozen shrimp in 2016 to 2017 increased by 16.21% quantity, 9.98% rupee value and 20.33% USD \$ value respectively. Other items also shows considerable growth when compare

to previous year and frozen cuttle fish face certain decrease by -3.47% in quantity when compare to previous year but comparable increase in value and USD \$.

Year Wise Export Performance of Marine Products:

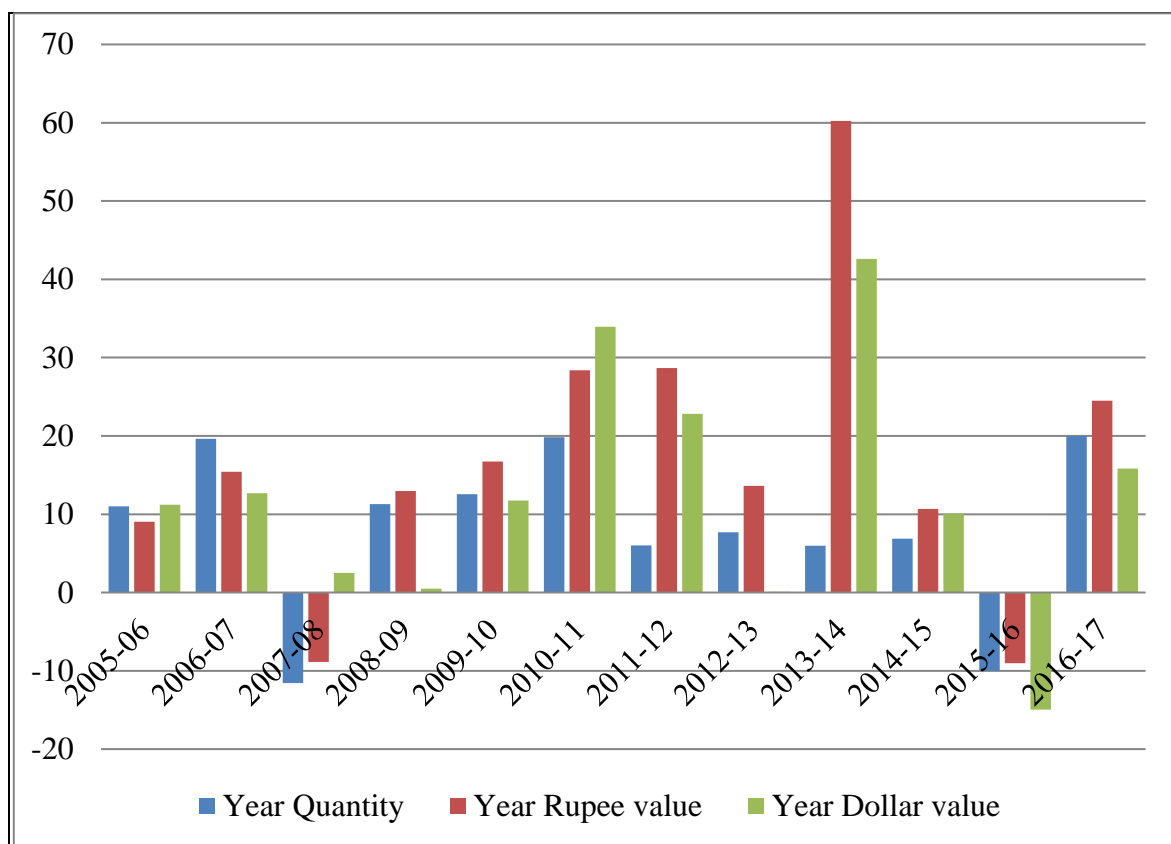
The table 2 shows the overall export performance and growth rate of marine products for past 12 years from 2005-2017.

Table 2. Shows export of Indian marine products and its Growth rate (2005-2017)

| Year | Quantity in Tones | Value in Rs. Crore | Value in US \$ Million | Growth Rate % | | |
|---------|-------------------|--------------------|------------------------|---------------|-------------|--------------|
| | | | | Quantity | Rupee value | Dollar value |
| 2005-06 | 512164 | 7245.30 | 1644.21 | 11.02 | 9.05 | 11.21 |
| 2006-07 | 612641 | 8363.53 | 1852.93 | 19.62 | 15.43 | 12.69 |
| 2007-08 | 541701 | 7620.92 | 1899.09 | -11.58 | -8.88 | 2.49 |
| 2008-09 | 602835 | 8607.94 | 1908.63 | 11.29 | 12.95 | 00.50 |
| 2009-10 | 678436 | 10048.53 | 2132.84 | 12.54 | 16.74 | 11.75 |
| 2010-11 | 813091 | 12901.47 | 2856.92 | 19.85 | 28.39 | 33.95 |
| 2011-12 | 862021 | 16597.23 | 3508.45 | 6.02 | 28.65 | 22.81 |
| 2012-13 | 928215 | 18856.26 | 3511.67 | 7.68 | 13.61 | 0.09 |
| 2013-14 | 983756 | 30213.26 | 5007.70 | 5.98 | 60.23 | 42.60 |
| 2014-15 | 1051243 | 33441.61 | 5511.12 | 6.86 | 10.69 | 10.05 |
| 2015-16 | 945892 | 30420.83 | 4687.94 | -10.02 | -9.03 | -14.94 |
| 2016-17 | 1134948 | 37870.9 | 5777.61 | 19.99 | 24.49 | 15.83 |

Source: compiled by author based on MPEDA data

Fig. 1. Shows the year wise growth percentage of marine products exported from India



The graphical representation and above table 2 shows the standard growth from 2009-10 to 2014-15 for six year on basis of quantity, value in rupee and US \$ value respectively. In the year 2007-08 and 2015-16 there is a decline in quantity, rupee value and US \$ by -10.02%, -9.03% and -14.94% respectively but in 2016-17 comparably there is positive growth by 19.99%, 24.49% and 15.83% respectively.

OBJECTIVE II

Opportunities faced by fishing sector:

Due the involvement of central and state government the fishing sector faces tremendous growth in past ten years. The Department of Animal Husbandry Dairying and Fisheries are the main authority for

development of fishery sector and the Ministry of Food Processing Industries play as an agency for growth of fishing industries and provide employment to the female members in fishermen family.

On the base of Blue Revolution the government undertake some measures based on promoting aquaculture, adequate training of fishermen about new technology and tapping neglected water bodies and the White Revolution were announced with increased investment, infrastructure development, proper training for fishermen in fishing sector. They provide various legislations like environment protection act, water act, fisheries act etc. charter foreign vessel banning were undertaken and provide motorised traditional fishing craft with modern technology and techniques.

In the Budget 2018 announced as to help working capital needs of fishermen government has extended the facility of Kisan Credit Cards. Next announcement is based on setting up FAIDE- Fisheries and Aquaculture Infrastructure Development Fund for fisheries sector and AHIDF- Animal Husbandry Infrastructure Development Fund for animal husbandry sector combine of Rs.10,000 Crore for infrastructure requirements. With the help of "Make in India" and "Skill India" the fishery sectors yield more economic benefits from government.

The major activities taken by NFDB (National Fisheries development Board) include fisheries development in reservoirs, ponds and lakes aquaculture, mariculture, coastal aquaculture, cultivation of seaweed and major infrastructure development like fish dressing centres, fishing harbours and landing centres, technology upgradation, solar drying of fish, deep sea fishing, domestic marketing and tuna processing etc.

Fishing problems and challenges:

Here, some of the fishing problems and challenges were highlighted.

Problems faced by marine:

Globally 80% of marine pollution is based on land and human based activities from plastic bags to pesticides. This includes:

- Oil spills – every year around 12% of oil entering into the sea and it cause much damage to marine, according to the study conducted by US National Research Council, 36% of waste comes from rivers and drains and runoff from industry and urban areas.
- Solid garbage – most probably it is a plastic waste particularly plastic bags we may not dispose correctly just throw away and it reaches sea and it take huge long time to decompose by mistaken sea animals are taken as food it cause saviour damages to marine animals and ocean. Plastic items such as plastic bottles, balloons, glass bottles, packaging material, shoes etc.,
- Sewage disposal – most of untreated and under treated sewage waste are comes from many parts of the world, in Mediterranean sea 80% of untreated sewage waste are discharged it causes saviour human diseases.
- Toxic chemicals – such as pesticides, radioactive waste, chemical weapons, chemical used in consumer products are directly disposal into ocean it causes life of marine animals such as fish, polar bear, whales, dolphin etc., when sea foods are consumed by human it causes health problems including cancer.

Problems based on shipping:

Today more than 50,000 merchant ships are travelling in world oceans and more than 7 billion tonnes of cargo was shipped by sea, most of import and export activities i.e., more over 90% trade is based on shipping based on this massive pollution and damages are lead by poor shipping practice. This damage includes: Through operational discharge and accidental spills on that time ships release

oils and toxic chemicals into the ocean. For example in few months before ship accident occurred in Mumbai that time the ocean full oil. Next traffic of ship in harbour today by growth of import and export sector shipping lanes are become more congested and increased in shipping traffic also one of reason for spills and accidents.

Problem based on Tourism and Hotel development:

In India tourism play a vital role in countries growth. Most of 80% of the tourist place is near seashore. So to attract their customer every hotels were modernised and coastline are becomes concrete, it is also one of environmental impact of marine.

Problems and challenges faced by fishing sector and fishermen:

Recently, the most important challenge is faced by fishing sector is usage of formalin and ammonia in fish. To stop the activity the government and food safety department form inspection department by the continuous inspection they seizure nearly 9,600 kg of fish in last month. After this situation the rumour will spread, this causes price will comes down. This serious problem faced by traditional as well as small scale fishermen community and fishing sector.

By the intervention of middlemen and wholesalers the fishermen are lose their profit they may purchase the fresh catch at lower rate and protect themselves then sale for higher rate. The marketing channels in the fishing sector are

- Fishermen-Auctioneer-Commission agents-Wholesalers-Retailers-Consumers
- Fishermen-Auctioneer-Local retailers/vendors'-Consumers
- Fishermen-Auctioneer-Commission agents-Processor-Exporter

Through this channel the first and foremost risk is based on fishermen but the benefits and high profits are enjoyed by middlemen in fishing sector

Due to the poverty of fishermen they not able to use latest technology still now days also they follow traditional fishing.

Poor infrastructure and lack of cold storage facility in their boats they not able to give fresh fish so the quality of fish comes down and the rate also down.

In deep sea fishing private owners are play sufficient role with mechanized boats with latest technology.

During the ban period from April 15 to June 14 these two months they may not able to run their family without any struggle. They not get enough money during the period the government announce Rs.10, 000 as relief assistance but it's not enough to meet their daily needs.

Due to the lack of training, the quality of fish feed is getting poor in now a days. Most important challenge faced by every fisherman is boundary problems. Without latest equipment like GPRS they don't know about miles or kilometres into the sea it is one reason and the another one is fisherman are working under private ship owners and once they going for catching the owner will spend Rs.2,00,000 to Rs.3,00,000 for single trip. So the owners

are forced their workers to get the stock of fish's upto Rs.5, 00,000. These two reasons are placed by fisherman community for their boundary crossing.

Findings:

1. The product wise export shows highest growth rate for frozen fin fish by 29.73% in quantity, 28.84 in rupee value and 26.92% in US \$.
2. The year wise export shows highest growth rate for the period 2013-2014 on the basis of quantity, rupee value and US \$.

Suggestions:

1. Regulating usage of plastic bags, avoid dropping of industrial and sewage waste in and around seashore areas.
2. To encourage the research and development to support small scale fisheries sector.
3. Generate awareness about the new technology, healthy fish feed and provide efficient financial support from government to brought new equipments.
4. Joint patrolling and provide GPRS support around the maritime boundaries should reduce the arrest and killing incident of border crossing.
5. Provide adequate incentives to encourage the growth of export.

CONCLUSION:

The short study indicates that the efficient growth of fishery sector and fishermen is based on our government. The state government should take necessary steps towards fishermen community and give necessary compensations directly to them. The right time action and support will help the fishermen to overcome their poverty and security for life. Immediate action or create awareness regarding the oceanic pollution and protect protein enrichable item of fish to next generation. So the fishery sector occupies unavoidable place in front of development of countries utility, employment generation and foreign exchange earner in India. Both central and state government has provide welfare facilities to fishery people and to encourage the participation of young generation about marine industry and its importance through fishing courses offered by different fishing colleges in India.

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