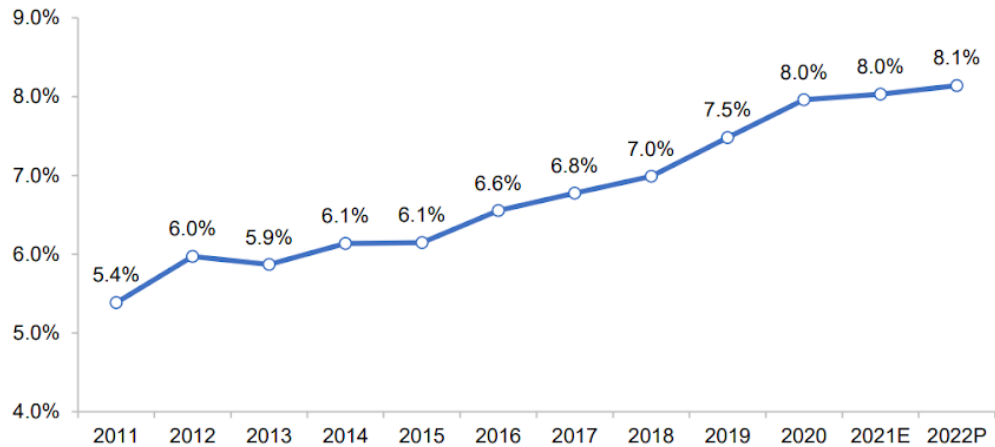


## A) Industry Overview:



**India's growing share in global fish production**



Source: OECD-FAO Agricultural Outlook 2022-31, CRISIL MI&A Research

### **Government providing support for the fisheries sector in India**

#### **Pradhan Mantri Matsya Sampada Yojana (PMMSY)**

As a part of the Aatmanirbhar Bharat Abhiyan, the government approved PMMSY in fiscal 2021 to enhance the country's Blue Revolution by focusing on sustainable and responsible development of the fisheries sector. The major objectives and aims of this scheme include:

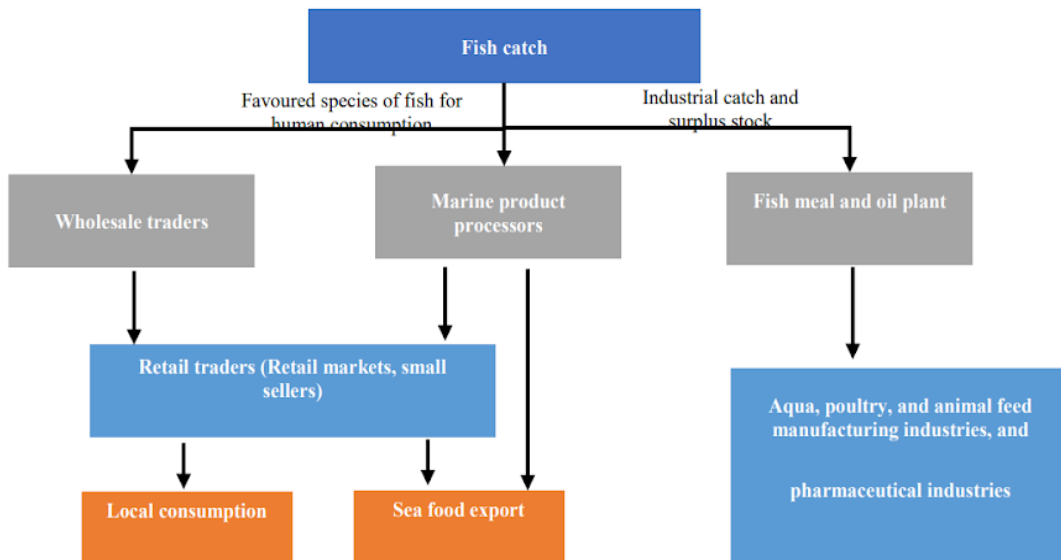
- Harnessing of fisheries potential in a sustainable, responsible, inclusive, and equitable manner
- Enhancing fish production and productivity through expansion, intensification, diversification, and productive utilisation of land and water
- Modernising and strengthening of the value chain - post-harvest management and quality improvement
- Doubling fishers and fish farmers' incomes and generation of employment
- Enhancing contribution to agriculture GVA and exports
- Social, physical and economic security for fishers and fish farmers
- Robust fisheries management and regulatory framework

### Fisheries and Aquaculture Infrastructure Development Fund (FIDF)

The FIDF has been envisaged under Union Budget 2018. With a fund size of ₹ 75.2 billion, this scheme tries to improve the fisheries infrastructure, both marine and inland, and also achieve the target of 15 million tonnes of fish production by 2020, set under the Blue Revolution. In addition, FIDF also tries to achieve sustainable growth of 8-9% to achieve fish production of 20 million tons by fiscal 2023.

The National Fisheries Development Board (NFDB), Hyderabad, acts as the nodal implementing agency. FIDF provides concessional finance to the eligible entities (EEs), which include state governments/Union territories and state entities to develop identified fisheries infrastructure facilities. This concessional finance is provided through nodal loaning entities (NLEs) such as:

- National Bank for Agriculture and Rural Development (NABARD);
- National Cooperatives Development Corporation (NCDC); and
- All scheduled banks.



Source: Industry, CRISIL MI&A Research

Note: Animal feed includes feed to animal husbandry industries and pet food industries

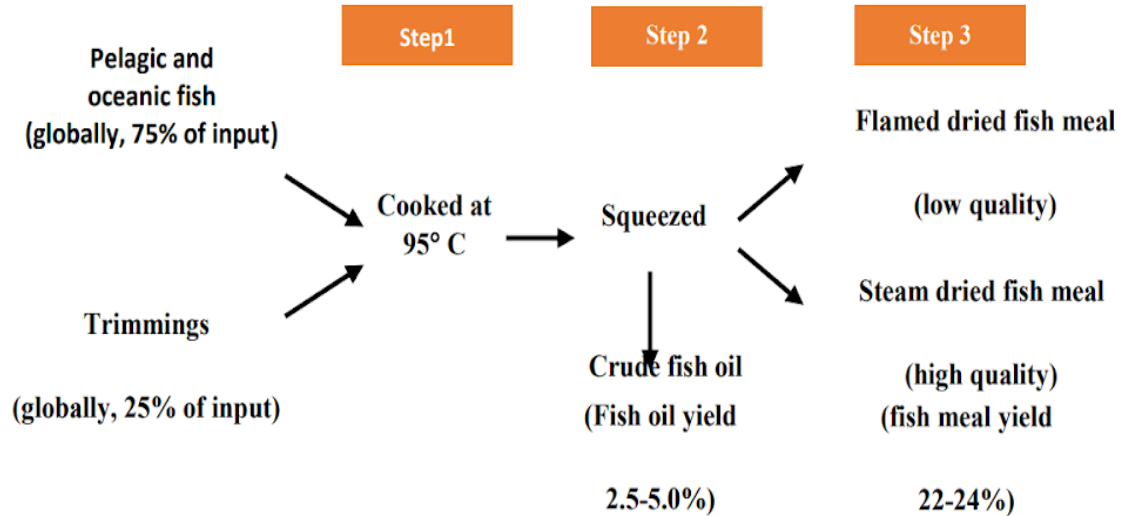
Fish meal and fish oil are produced from i) fish considered as industrial catch (those caught specifically for making fish meal and fish oil) and ii) surplus stock from by-catch of fisheries for human consumption. Sometimes offal and trimmings from sea-food processing industries are used along with whole fish, to produce fish meal - the proportion of this mixture varies between large players and small players with large players using smaller proportion of offal and trimmings to produce fish meal when compared to that of small players. Industrial catch are high protein edible species of fish such as sardines, which are the major source of protein in the aqua feed protein chain. While industrial catch comprises edible species of fish, they are not majorly favoured for direct human consumption. On account of the economical price of the raw material (fish), wild species from sea are generally used in the fish meal and fish oil industry rather than aquaculture species. According to the International Fish meal and Fish Oil Organisation (IFFO), now known as IFFO - The Marine Ingredients Organisation, 30-35% of the wild catch goes into the production of fish meal and fish oil.

### **Value chain of the industry**

The fish meal and fish oil industry relies on fishing in oceanic waters for procurement of raw materials. Typically, the larger raw material vendors (fishermen) use mechanised and motorised boats while the smaller fishermen use non-motorised boats, along with gears such as seines, trawls, gillnets and bagnet for fishing. According to Central Marine Fisheries Research Institute (CMFRI) data, mechanised and motorised boats accounted for ~98.8% of the total marine landings while non-motorised boats comprised the rest 1.8%, as of 2021.

In India, the peak season for fishing is August-December and the slack season is January-May. Fishing is not allowed in Indian waters during June-July, as it is the monsoon season. Fish meal and fish oil production follows the same season as fishing. The output is stocked to cater to the demand of domestic and exports market.

## Production of fish meal and fish oil



Source: [www.thefishsite.com](http://www.thefishsite.com), CRISIL MI&A Research

### c. Indian fish meal and fish oil industry size

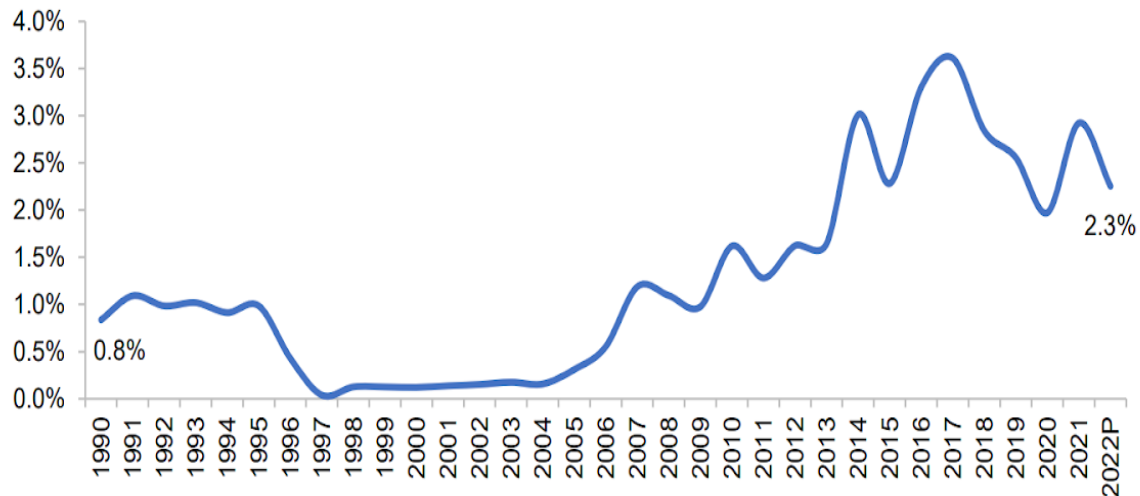
In India, Karnataka, Kerala, Maharashtra, Gujarat and Tamil Nadu are home to key fish meal plants. Karnataka has the maximum number of plants, mostly in and around Mangaluru.

#### Indian fish meal and fish oil industry is estimated to reach ` 16-20 billion by fiscal 2026

CRISIL MI&A Research estimates, the Indian fish meal and fish oil industry de-grew at a CAGR of (4)-(5)% from ` 18.0 – 24.0 billion in fiscal 2018 to ` 13.0 – 17.0 billion in fiscal 2022. While in volume terms, it is estimated to have de-grown at a CAGR of (9)-(13)% from 180,000 – 220,000 tonnes in fiscal 2018 to 100,000-140,000 tonnes in fiscal 2022. This decline can be attributed to the decrease in fish landing (specifically of oil sardine fish) over the years due to change in climatic and natural conditions. In addition, as per our industry interactions, implementation of GST on fish oil (at 12%) and fish meal (at 5%), since 2019, has led to increase in prices, causing end consumers to favour cheaper imports as compared to domestic produce.

However, in fiscal 2023, the industry is estimated to see a huge jump in value as well as volume. It is likely to see an on-year growth of 130-150% in value terms and 90-110% in volume terms. This sudden rise can be majorly attributed to the increase in oil sardine landings (major raw material for fish meal and fish oil) coupled with increased traction in exports led by production shortage in Peru region and higher exchange rates in the global markets.

### India's fish meal and fish oil production as a percentage of global production



*P: Projected*

Source: OECD-FAO Agricultural Outlook 2022-31 and CRISIL MI&A Research

### Insect feed emerging as an alternative source in animal feed industry

With increasing demand driven by more population opting for animal-based nutrition coupled with limitation of fish meal due to its environmental impact has raised the requirement for new source of protein in the animal feed industry. Insect based nutrition is emerging as a new source of protein in the global animal feed industry. The emergence is majorly led by the following factors.

- Insects have high protein content (50-80% on a dry matter basis)
- Insects are natural diet for most animals
- Insect farming requires less water, less land, less production and has small environmental footprint when compared with other species.
- Use of insect feed also contributes to circular economy upcycling of low agriculture food materials into high value protein

### Brief information about key players in the industry

Company name	Established in	Registered as company in	Production capacity (in metric tonne per day)	Plant locations	Corporate office
Mukka Proteins Ltd	2003	2010	167	Mangalore, Karnataka	Mangalore, Karnataka
TJ Marine Products Pvt Ltd	2004	2014	240	MIDC Ratnagiri, Maharashtra	Udupi, Karnataka
Arbee Aquatic Proteins Pvt Ltd	1978	2013	82	Alleppey, Kerala	Kottayam, Kerala
Akash Fishmeal and Fish Oil Pvt Ltd	-	2015	160	Vengurla, Maharashtra	Sindhudurg, Maharashtra
Omega Fishmeal and Oil Pvt Ltd	2011	2011	200	Ratnagiri, Maharashtra	Mumbai, Maharashtra

## B) Company's Business:

As a manufacturer of Fish Protein products, company's manufacture and supply fish meal, fish oil and fish soluble paste which is an essential ingredient in the manufacturing of aqua feed (for fish and shrimp), poultry feed (for broiler and layer) and pet food (dog and cat food). Further, fish oil also finds its application in pharmaceutical products (additionally, Omega-3 pills and related products derived from fish oil are gaining importance as high nutrient and healthy dietary supplements), soap manufacturing, leather tanneries & paint industries. Company's sell products domestically and also export them to over 10 countries, including Bahrain, Bangladesh, Chile, Indonesia, Malaysia, Myanmar, Philippines, China, Saudi Arabia, South Korea, Oman, Taiwan and Vietnam.

Company was originally formed as a partnership firm constituted under the Indian Partnership Act, 1932 under the name "Mukka Sea Foods Industries" pursuant to a deed of partnership dated March 13, 2003. "Mukka Sea Foods Industries" was thereafter converted from a partnership firm to a private limited company under Part IX of the Companies Act, 1956, as "Mukka Sea Food Industries Private Limited".

Company maintains their facilities along the coastline to minimize dependency on any particular coastal landing sites and fish catchments and thus providing fresh, adequate and cost-effective access to their key raw material i.e. pelagic fish, such as sardine, mackerel, anchovy, etc. Company strategically located Facilities also enable them to maintain high product quality and

optimize on the transport cost. As on September 30, 2023 company's annualized aggregate manufacturing capacity is 115050 MTPA of fish meal, 16950 MTPA of fish oil and 20340 MTPA of fish soluble paste.

### Insect Protein Segment:

Insects contribute to a circular economy by upcycling of low-value agri-food materials into high-value protein and other applications. Insect-based nutrition is emerging as a whole new category in food and feed systems. It has the potential to bring new value-added propositions based on its nutritional, functional, and environmental benefits.

### Product wise revenue:

(₹ in million except share data)

Name of Products	As on September 30, 2023	As % of Revenue from Operations	As on March 31, 2023	As % of Revenue from Operations	As on March 31, 2022	As % of Revenue from Operations	As on March 31, 2021	As % of Revenue from Operations
Fish meal	5,221.79	86.16%	9,620.72	81.73%	7,120.81	92.42%	5,468.30	90.56%
Fish oil	536.63	8.85%	1,653.21	14.04%	325.50	4.22%	370.58	6.14%
Fish soluble paste	136.46	2.25%	269.13	2.29%	211.06	2.74%	77.79	1.29%
<b>Total (A)</b>	<b>5,894.88</b>	<b>97.26%</b>	<b>11,543.06</b>	<b>98.06%</b>	<b>7,657.37</b>	<b>99.38%</b>	<b>5,916.67</b>	<b>97.99%</b>
Insect meal*	10.06	NA**	27.90	NA**	7.52	NA**	-	-
Insect oil*	6.81	NA**	18.88	NA**	5.10	NA**	-	-
<b>Total (B)</b>	<b>16.87</b>	<b>0</b>	<b>46.77</b>	<b>0</b>	<b>12.61</b>	<b>-</b>	<b>-</b>	<b>-</b>

\*Insect meal and insect oil is presently used for captive consumption by our Company

\*\*Sales as per the standalone financials of EPPL

### Geography wise Revenue:

(₹ in million)

Name of Products	As on September 30, 2023	As on March 31, 2023	As on March 31, 2022	As on March 31, 2021
Within India revenue	1,901.21	4,865.00	5,693.24	2,638.66
Outside India revenue	3,993.66	6,678.06	1,964.13	3,278.00
<b>Total revenue from sale of products (A +B)</b>	<b>5,894.88</b>	<b>11,543.06</b>	<b>7,657.37</b>	<b>5,916.67</b>
Others	10.51	20.57	4.05	(11.59)
Export Benefits	155.36	207.21	43.27	130.17
Discount received	-	-	0.05	0.38
Deferred Income (Subsidy on Machinery)	0.19	0.38	0.30	0.30
Other operating income	-	-	-	2.42
<b>Revenue from operations</b>	<b>6,060.94</b>	<b>11,771.22</b>	<b>7,705.03</b>	<b>6,038.34</b>

### C) Subsidiaries and Associates:

<b>Name of the entity</b>	<b>Shareholding of our Company (in %)</b>	<b>Relationship</b>	<b>Activities</b>	<b>Location &amp; Country</b>
<b>Ocean Aquatic Proteins LLC</b>	63.00%	Subsidiary	Manufacturing of fish meal, fish oil, fish soluble paste	Asrar and Shinas, Oman
<b>Atlantic Marine Products Private Limited</b>	50.99%	Subsidiary	Manufacturing of fish meal	Jafrabad, Gujarat
<b>Haris Marine Products Private Limited</b>	98.00%	Subsidiary	Manufacturing of fish meal, fish oil, fish soluble paste	Mangaluru, Karnataka
<b>MSFI (Bangladesh) Ltd.</b>	49.00%	Associate	Trading of fish meal, fish oil, fish soluble paste	Dhaka, Bangladesh
<b>Ocean Proteins Private Limited</b>	40.00%	Associate	Processing of shrimp & surimi	Baikampady, Mangaluru, Karnataka
<b>Progress Frozen and Fish Sterilization</b>	51.00%	Partnership Firm where our Company has substantial capital contribution	Manufacturing of fish meal	Porbandar, Gujarat
<b>Pacific Marine Products</b>	31.33%	Firm where our Company has substantial capital contribution	Manufacturing of fish meal	Veraval, Gujarat
<b>Ullal Fish Meal and Oil Company</b>	96.00%	Partnership Firm where our Company has substantial capital contribution	Manufacturing of fish meal, fish oil, fish soluble paste	Ullal, Mangaluru, Karnataka



<b>Mangalore Fish Meal and Oil Company</b>	88.20 % held indirectly	Partnership Firm where our Company has substantial capital contribution	Manufacturing of fish meal, fish oil, fish soluble paste	Ullal, Mangaluru, Karnataka
<b>Ento Proteins Private Limited</b>	50%	Associate	manufacturing of Insect Protein	Mangaluru, Karnataka

## D) Company Financials:

(Rs. in millions)

Particulars	Half year ended 30th September 2023	Year ended 31st March, 2023	Year ended 31st March, 2022	Year ended 31st March, 2021
Revenue	6,060.94	11,771.22	7,705.03	6,038.34
EBITDA	613.96	928.52	532.27	279.98
<b>EBITDA Margin</b>	<b>10.13%</b>	<b>7.89%</b>	<b>6.91</b>	<b>4.64%</b>
Net Profit	329.81	475.25	258.19	110.10
<b>Net Profit Margin</b>	<b>5.44%</b>	<b>4.04%</b>	<b>3.35%</b>	<b>1.82%</b>
EBIT	553.16	809.60	446.48	196.55
Finance Cost	123.25	164.77	96.80	80.21
<b>Interest Coverage Ratio</b>	<b>4.49</b>	<b>4.91</b>	<b>4.61</b>	<b>2.45</b>
Debt	3177.27	2548.29	1734.98	1591.93
Equity	1886.06	1558.45	1030.78	690.58
<b>D/E ratio</b>	<b>1.68</b>	<b>1.64</b>	<b>1.68</b>	<b>2.31</b>
Current Assets	5197.40	4640.42	2863.85	2565.13
Current Liabilities	4383.96	4028	2764.12	2671.34

<b>Current Ratio</b>	<b>1.89</b>	<b>1.15</b>	<b>1.04</b>	<b>0.96</b>
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### E) Comparison with peer:

<b>Company</b>	<b>P/E Ratio</b>	<b>EBITDA Margin</b>	<b>D/E Ratio</b>	<b>EV/EBITDA</b>	<b>Interest Coverage Ratio</b>
<b>Mukka Proteins Limited</b>	12.73	10.13%	1.68	3.73	4.49
<b>Avanti Feeds Limited</b>	20.30	8.99%	0.00	11	331
<b>Godrej Agrovet Limited</b>	31.60	6.32%	0.66	15.90	4.73
<b>Zeal Aqua Limited</b>	22.30	7.55%	1.97	11.40	1.49
<b>Waterbase Limited</b>	In loss	2%	0.12	88.60	-1.76

### F) Conclusion

Company EBITDA margin is better as compared to peers but D/E ratio is on a higher side due to high borrowings as compared to peers. However P/E ratio is on the lower side indicating it may be undervalued or presenting a potential investment opportunity. Company's EV/EBITDA and interest coverage ratio is on a better side.