

# Valuation of marine fish landings in India-2023

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India, being the second largest producer of fish in the world, contributes about 6.5 per cent of the global fish production. The present fish production of India is 16.24 million MT with a contribution of 4.12 million MT from marine sector and 12.12 million MT from inland sector. The Indian marine fisheries sector also contributes enormously to the economy by creating foreign exchange, food security, direct employment and income. With changing consumption pattern, emerging market forces and technological developments, the fisheries sector has assumed added importance in India and is undergoing a rapid transformation. Amidst slump in landings, the valuation of fish considerably increased on account of the realization of higher prices, movement of fish from non-consumption areas to consumption areas and augmented fish consumption. The marine fish landings exhibit wide range of volatility which might have serious impacts on the fisheries economy of the country. The pandemic COVID- 19 also had multifaceted effects on the marine fish landings as the lock down put severe restrictions

and reported a reduction in the marine fish landings from different coastal states of the country. However, the demand for fish continues to increase and people prefer more of marine fish. The present study on valuation of fish, an empirical analysis analysis is an attempt to understand the valuation of fish vis-s-vis landings over the period 2023. The study was done based on the fish price realization at the point of origin (Landing Centre Prices) and point of last sales (Retail Centre Prices) for the time period sourced from FRAEED and the landings of fish were obtained from NMFDC, ICAR-CMFRI. The objectives of the study is to assess the valuation of fish landings across different states vis-à-vis different major species, its share to landings and marketing efficiency.

## Valuation of fish landings

The estimate of the value of marine fish landings during 2023 at Landing Centre (LC) level was ₹60165 crores,

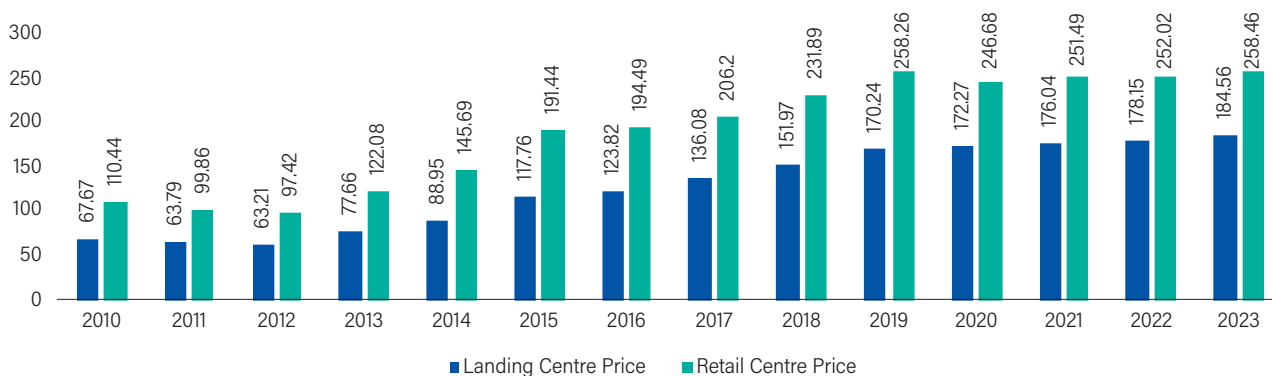


Fig. 1. Unit price at LC and RC levels (₹/kg) for the period 2010-2023

Table 1. Valuation of fish landings across states (crores)

State	LC valuation (₹ crores)			RC valuation (₹ crores)		
	2022	2023	Share (%)	2022	2023	Share (%)
West Bengal	3153	3112	5	4240	4318	5
Odisha	2521	2439	4	3388	3494	4
Andhra Pradesh	3221	3162	5	4638	4456	5
Tamil Nadu	10319	8270	14	14352	11409	14
Puducherry	771	854	1	1105	1186	1
Kerala	11053	10538	18	15146	14217	17
Karnataka	10885	9057	15	14635	12743	15
Goa	1146	1246	2	1463	1728	2
Maharashtra	3674	4309	7	4966	5917	7
Gujarat	9937	15190	25	13849	20940	25
Daman & Diu	1567	1989	3	2083	2668	3
Total	58247	60165	100	79866	83076	100

Table 2. Species wise share (%) in landings and valuation, 2023

Species	Landings (Tonnes)	Share in landings (%)	LC valuation (Rs. Crores)	Share in total value (%)	RC value (Rs. Crores)	Share in total value (%)
Oil sardine	245420	6.95	1900	3.16	3049	3.67
Lesser sardines	136878	3.88	1193	1.98	1822	2.19
Threadfin breams	207232	5.87	3119	5.18	4563	5.49
Other perches	104176	2.95	1867	3.10	2703	3.25
Ribbon fishes	269616	7.64	4329	7.19	6306	7.59
Scads	123758	3.51	2369	3.94	3285	3.95
Other carangids	109518	3.10	2200	3.66	3076	3.70
Indian mackerel	343042	9.72	5495	9.13	7512	9.04
Penaeid prawns	159201	4.51	4778	7.94	6074	7.31
Non-penaeid prawns	211260	5.98	4658	7.74	6202	7.47
Squids	105818	3.00	2245	3.73	2931	3.53

(3.29 % increase over 2022) and at Retail Centre (RC) was ₹83076 crores (4.02 % increase over 2022). The unit price per kg of fish at LC was ₹178.97 (0.74 % increase over 2022) and at RC was ₹247.62 (2.38 % increase over 2022). The marketing efficiency was 72.42 % (0.70 % decrease over 2022). The increase in the value is attributed to increase in landings during 2023.

Gujarat recorded the highest realization of prices at the landing center and retail centers registering a share of 25.00 percent and 25.00 per cent respectively over 2022. Besides, ranking second in the fish landings in the country the state of Kerala has the highest realization of prices at the retail centers registering a share of 17.00 percent and 18.00 per cent at the landing centre respectively over 2022.

Indian Mackerel accounted for the highest share of 9.72% in total marine fish landings and in value terms accounted for 9.13 % at LC level and 9.04 % at RC level (Table 2).

## Price behaviour of marine fish varieties

### 1. Landing centre

The analysis of the landing price behavior for major species indicated a wide variation in prices across species. (Fig. 2) and across States (Table 3)

The analysis of the average RC prices for major species in India are presented in Fig. 3 and Table 4. Lobster realized

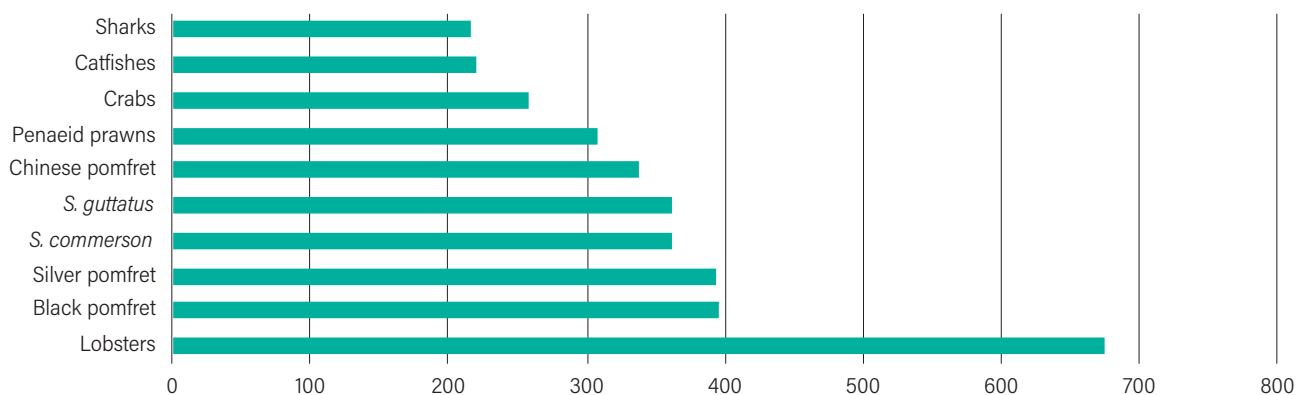


Fig. 2. Average LC price realization – All India (₹/kg)

Table 3. State-wise landing price behaviour (In ₹/kg) of major species 2023

Species	TN	GJ	KAR	KER	WB	MH	DD	OR	PU	GO	AP
Indian mackerel	127	132	125	189	141	178	165	195	126	215	172
Oil sardine	85	62	72	80	85	85	78	85	75	80	72
Ribbon fishes	159	149	138	177	151	190	223	147	182	168	165
Threadfin breams	165	162	132	172	173	224	194	219	162	190	172
Lesser sardines	87	67	84	85	78	85	115	112	72	95	117
Scads	171	195	214	178	185	230	222	185	180	200	145
Penaeid prawns	279	266	345	342	275	323	348	272	298	387	242
Non-penaeid prawns	172	219	269	220	212	238	240	185	NL	NL	168
Other carangids	183	177	227	221	158	252	230	228	210	214	202
Other perches	167	171	175	225	155	215	244	201	172	200	141

NL- No landings TN- Tamil Nadu, GJ- Gujarat, KER- Kerala, KAR- Karnataka, AP- Andhra Pradesh, WB- West Bengal, MH- Maharashtra, DD- Daman & Diu, OR- Odisha PU- Puducherry, GO- Goa,

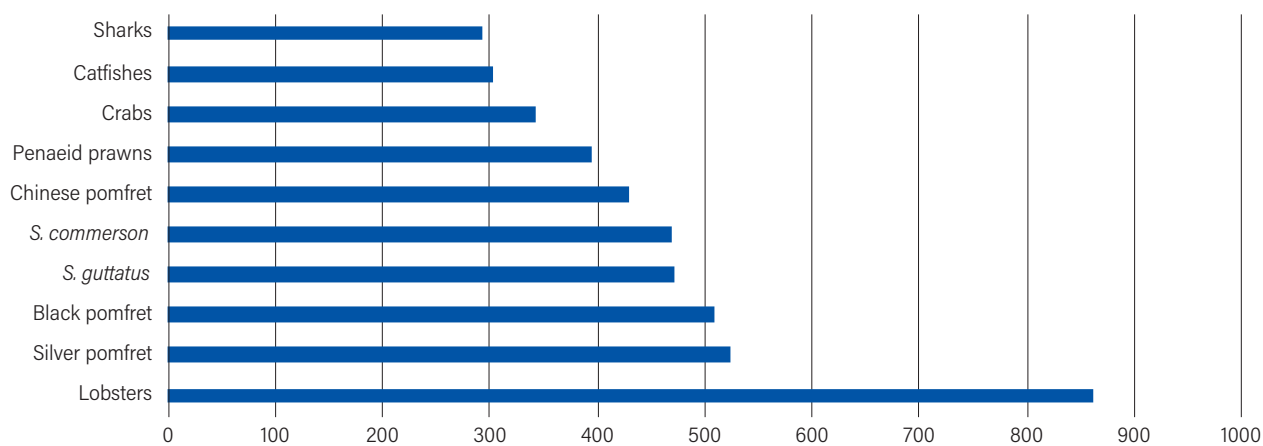


Fig. 3. Average RC price realization – All India (₹/kg)

Table 4. State-wise retail price behaviour (In ₹/kg) of major species 2023

Species	TN	GJ	KAR	KER	WB	MH	DD	OR	PU	GO	AP
Indian mackerel	181	175	168	265	179	242	242	162	179	295	224
Oil sardine	125	101	120	128	125	118	105	135	102	112	121
Ribbon fishes	220	229	214	125	212	273	280	232	247	235	222
Threadfin breams	221	252	198	239	235	297	267	298	245	342	242
Lesser sardines	132	97	125	135	115	145	153	172	102	142	185
Scads	272	289	298	235	236	292	298	253	245	333	213
Penaeid prawns	342	362	420	402	368	419	444	382	385	495	325
Non-penaeid prawns	225	289	345	325	282	330	318	262	NL	NL	232
Other carangids	252	239	292	350	219	324	323	312	292	308	282
Other perches	245	247	265	289	202	298	315	292	259	325	234

NL- No landings TN- Tamil Nadu, GJ- Gujarat, KER- Kerala, KAR- Karnataka, AP- Andhra Pradesh, WB- West Bengal, MH- Maharashtra, DD- Daman & Diu, OR- Orissa, PU- Puducherry, GO- Goa,

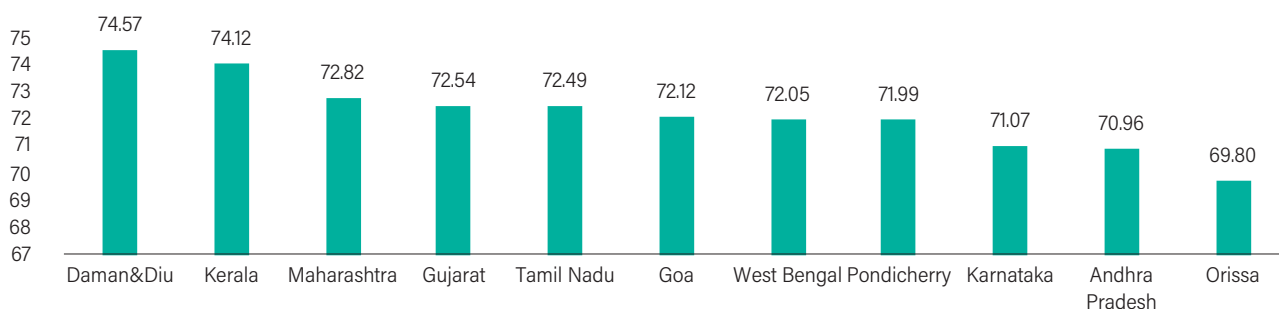


Fig. 4. Average market efficiency – All India

the highest retail price at ₹860.84 followed by silver pomfret (₹524.44).

Marketing efficiency is measured as the fishermen share of the consumer's rupee (FSCR) across the major species. The marine fish marketing efficiency across the different

states in India during the period 2023 was analysed and the results indicates that Daman & Diu registered the highest (74.57 %), followed by Kerala (74.12 %) and Maharashtra (72.82%) (Fig. 4). The increase in the landings is one of the major reasons for the increased efficiency and vice versa. The marketing efficiency of the different coastal states and

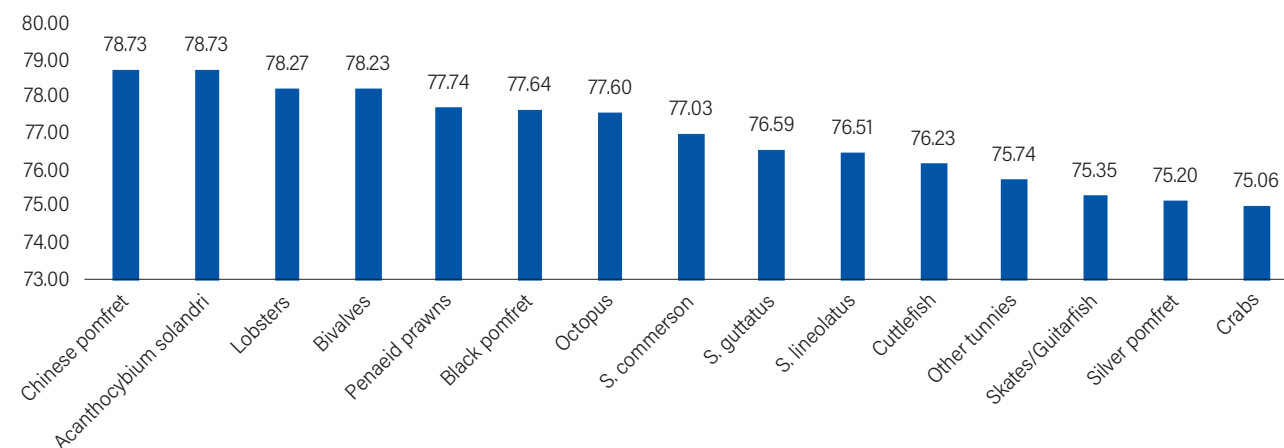


Fig. 5. Species with high marketing efficiency

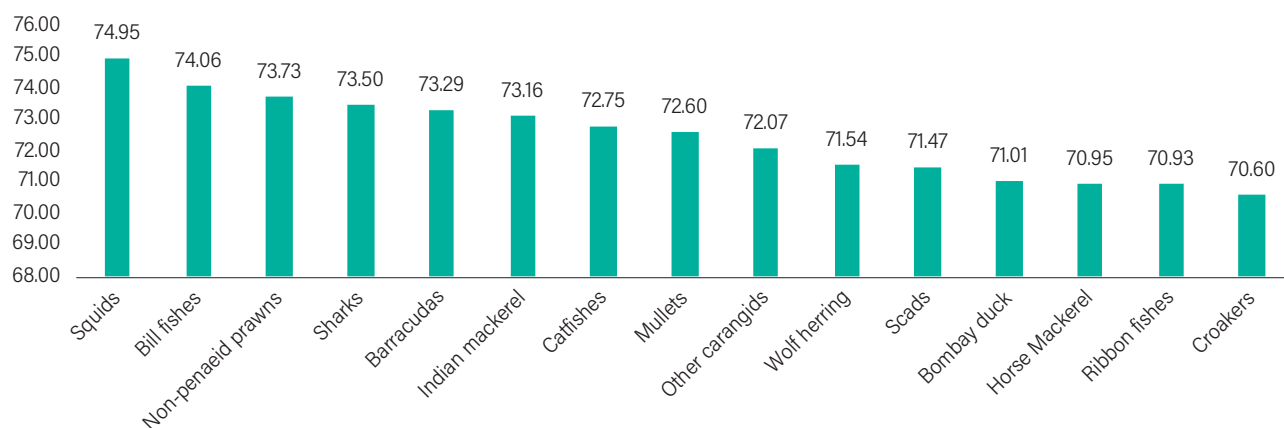


Fig. 6. Species with medium market efficiency

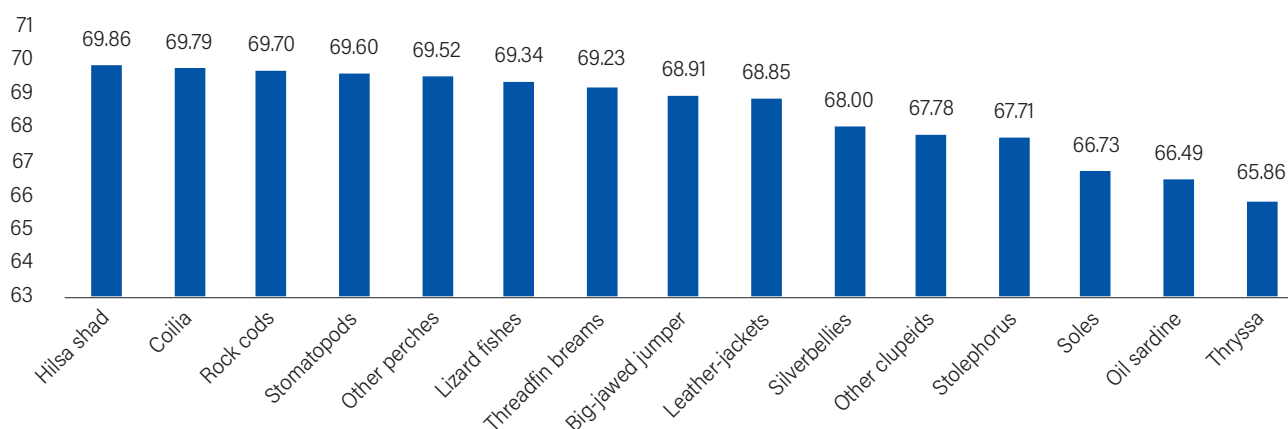


Fig. 7. Species with low market efficiency

high /medium/ low market efficient species during 2023 are clearly depicted in the figures below.

## Market efficiency of species

The marketing efficiency across the major species based on the level of marketing efficiency is given in Figure 5, 6 and 7.

In general, the high value species like Chinese pomfret (78.73 %), lobster (78.27 %), bivalves (78.23 %) and penaeid prawns (77.74 %) registered higher marketing efficiencies compared to non-penaeid prawns (73.73 %), sharks (73.50 %), Indian mackerel (73.16 %) with medium marketing efficiency. The species Hilsa shad (69.86 %), Threadfin breams (69.23 %) and Oil sardine (66.49 %) registered a low marketing efficiency.

The study concluded that the valuation showed differential growth across the different coastal states. Valuation of

fish has mostly increased due to the movement of fish from one state to other, which resulting in higher price realization. Price remains to be the major contributing factor for the highest revenue over the time period. The study also identified that the poor supply of fish to the domestic fish market will lead to a situation wherein the domestic consumers will be devoid of fish in the market at affordable prices. It is important to ensure the availability and affordability of high-value fishes whose consumption could be augmented by creating awareness in the country. Moreover, the efficiency of markets needs to be dealt with utmost importance. It is important to integrate domestic and international markets to ensure sustainability of fisheries trade. The different stakeholders (fishers, traders, consumers, exporters and policymakers) need to be made aware about the market and price of fishes for evolving efficient marketing systems and supporting infrastructure that would lead to better quality and prices.