

Valuation of marine fish landings in India

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Abstract

Marine fish landings in India registered 5.6% increase to reach 3.83 million tonnes (mt) during 2017. The valuation of fish landings done for 2015-2017 period indicated that the movement of fish from one state to other has resulted in higher price realization. The prices of low value fish species have not been stable for several reasons and the prices varied depending on species, seasons and abundance of other fish and fishery products. During glut seasons, many species earned a lower price and thus fell into the low value category.

Keywords: Marine fish, valuation, markets

The marine fisheries sector of India supports 4 million fishermen population spread across nine maritime states and two union territories for their livelihood by providing employment to nearly 9.9 lakh fishermen and contribute export earnings to the tune of 45,000 crores rupees. Sustained marine fish production from the sea can be ensured only if harvest is made judiciously with management and control. The Socio-Economic Evaluation and Technology Transfer Division (SEETTD) of the ICAR-CMFRI through its operational research projects is engaged in the collection of the price realization of marine finfish and shell fish resources in the selected landing centers and retail centers across the coastal states. The price data of the commercially traded fish species is collected on a weekly/ fortnightly basis through a structured schedule called MAP (Market Price). Based on the collected data average prices were worked out taking

into consideration the parameters of seasonality and species wise size ranges. The present study portrays the trend on the valuation of marine fish landings during the period 2015-2017.

Valuation of fish landings

During 2017 the estimated value of marine fish landings at landing centre level was ₹ 52,431 crores, (8.37% increase over 2016), in 2016 it was ₹ 48381 crores (20.7% increase over 2015) and in 2015 ₹ 40100 crores (26.3% increase over 2014). Besides all the externalities there is a huge increase in the marine fish landings from 2015 to 2017. At the retail level, the estimated value during 2017 was ₹ 78408 crores (6.98% increase over 2016), ₹ 73289 (12.4% increases over 2015) in 2016 and ₹ 65180 crores (24.5% increase over 2014) (Table 1).

Table 1: Percentage changes in the valuation of fish landings 2015-17

Parameters	2017	2016	2015
Landing Centre Valuation(LCV) (Crores)	52431 (8.37)	48381 (20.7)	40100 (26.3)
Retail Centre Valuation(RCV) (Crores)	78408 (6.98)	73289 (12.5)	65180 (24.5)

#figures in parenthesis indicates the increase in percentage of LCV and RCV from the previous year.

Valuation of fish landings across states

The valuation of the marine fish landings at the landing centre (LCV) and retail centre (RCV) across the coastal states is furnished in Table 2. The state wise analysis of the valuation indicated that Gujarat registered the highest valuation of marine fish at the LCV (18.94%) and RCV (18.79%) during 2017 and the second position during 2015 and 2016. Kerala held the second position in LCV (18.50%) during 2017. Karnataka retained the third position in LCV and RCV throughout the 2015-17 period.

Species wise valuation of Indian marine fisheries

The marine fisheries show seasonal variations to a great extent and the valuation of landings of the major species are given in Table 3. Oil sardine's contribution to share in landings have increased from 7.8 to 8.87% during 2015-2017. Due to reduced volumes of the threadfin breems landings in 2015-17, their share in value came to a low of 4.78 to 4.13%.

Table 2: Valuation of fish landings across states ('000 crores)

State	Landing Centre valuation			Retail Centre valuation		
	2017	2016	2015	2017	2016	2015
Kerala	9699 (18.50)	9149 (18.91)	9570 (23.86)	13501 (17.22)	12398 (16.92)	14640 (22.46)
Karnataka	6639 (12.66)	6247 (12.91)	4620 (11.52)	10196 (13.00)	9108 (12.43)	6404 (9.83)
Goa	1245 (2.37)	997 (2.06)	1060 (2.64)	1796 (2.29)	1451 (1.98)	1964 (3.01)
Maharashtra	6397 (12.20)	5369 (11.09)	4630 (11.54)	9488 (12.10)	8313 (11.34)	5596 (8.59)
Gujarat	9931 (18.94)	8427 (17.41)	7030 (17.53)	14729 (18.79)	13130 (17.92)	9851 (15.11)
Tamil Nadu	6807 (12.98)	6492 (13.41)	5630 (14.03)	11088 (14.14)	10728 (14.64)	7959 (12.21)
Puducherry	432 (0.82)	605 (1.25)	190 (0.47)	618 (0.79)	868 (1.18)	266 (0.41)
Andhra Pradesh	2679 (5.11)	2516 (5.20)	3050 (7.60)	4043 (5.16)	3916 (5.34)	3908 (6.00)
Odisha	1729 (3.30)	1645 (3.40)	2480 (6.18)	2901 (3.70)	2836 (3.87)	3350 (5.14)
West Bengal	5783 (11.03)	5501 (11.37)	1220 (3.40)	8490 (10.83)	8190 (11.17)	1187 (1.82)
Daman & Diu	1089 (2.08)	1433 (2.96)	620 (1.54)	1557 (1.99)	2351 (3.21)	1070 (1.64)
Total	52431	48381	40100	78408	73289	65180

#figures in parenthesis indicates the percentage share to total landings

Table 3. Species wise share in Landings (in %)

Species	2017		2016		2015	
	Landings	Share in value	Landings	Share in value	Landings	Share in value
Oil sardine	338,029	8.87	195163	7.6	256016	7.8
Indian mackerel	295,246	7.75	249241	7.04	237801	6.98
Ribbon fishes	240,502	6.31	217100	5.22	177259	5.21
Other sardines	236,668	6.21	195163	8.19	256016	7.52
Penaeid prawns	211,749	5.56	200116	5.80	199195	5.85
Non-Penaeid prawns	202,216	5.31	169558	4.75	149101	8.74
Threadfin breems	157,170	4.13	9728	4.74	11030	4.78

Average Landing Centre and Retail Centre Price realization

The unit price realized at the first point sales and last sales indicate that prices have increased progressively from 2010-2017(Fig.1).The landing centre price (LCP) shows a steady increase from ₹67.67 crores to ₹136.08 crores (50.27% increase over 2010) and the retail centre price (RCP) have increased from 110.44 crores to 206.2 crores (46.64% increase over 2010) respectively.

Marketing efficiency across states

Marketing efficiency is measured as the Fishermen Share of the Consumer's Rupee (FSCR) across the major species. The marketing efficiency of the different coastal states during the year 2015-2017 are indicated in Table 4.

It shows that Kerala registered the highest marketing efficiency in (73.79% and 71.84% respectively) and Odisha the lowest (59.59% in 2017 and 58.00% respectively). Whereas in 2015, West Bengal registered the highest marketing efficiency of 78.21% and Goa holds the lowest marketing efficiency of 49.3%. The increase in the landings is one of the major reason for the increased efficiency and *vice versa*.

Marketing efficiency of species

The high value fishes showed the maximum percentage share of fishermen in the consumer's rupee than the low value fishes. In general the high value species like penaeid prawns (79%), seer fishes (76.65%), squids (73%) and hilsa shad (73%) registered higher marketing efficiencies compared to non-penaeid prawns, threadfin

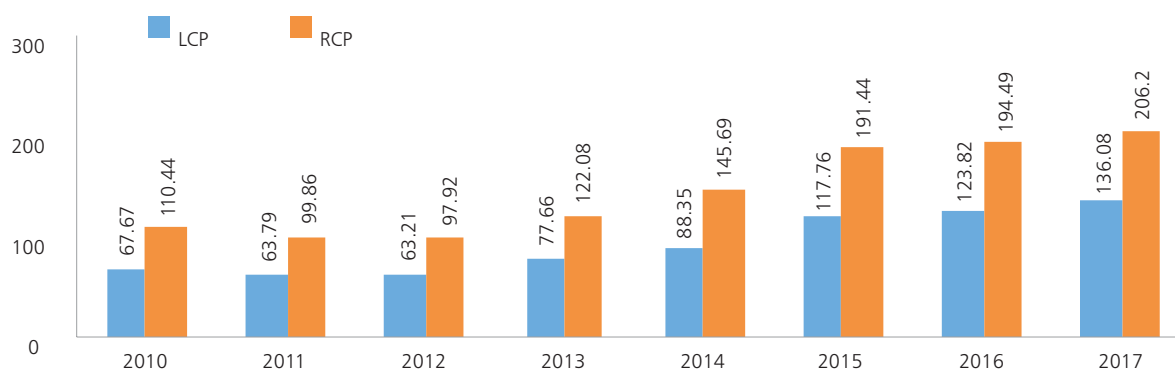


Fig 1: The unit price realized at the point of first sales (LCP) and last sales (RCP)

Table 4: Average Market efficiency - All India

States	2017	2016	2015
Kerala	71.51	73.79	65.39
Karnataka	65.17	68.59	60.01
West Bengal	65.64	67.17	78.21
Orissa	56.69	58.00	61.69
Andhra Pradesh	62.39	64.25	63.12
Puducherry	66.16	69.70	50.00
Goa	66.18	68.71	49.30
Maharashtra	62.03	64.59	61.76
Gujarat	62.71	64.18	60.06
Daman Diu	58.69	60.95	58.14
Tamil Nadu	58.07	60.51	58.38

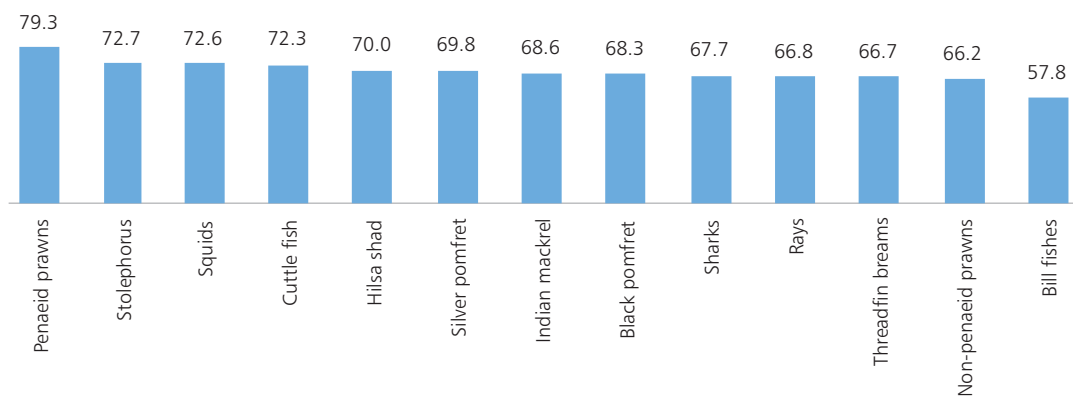


Fig 2. Highly marketing efficient species

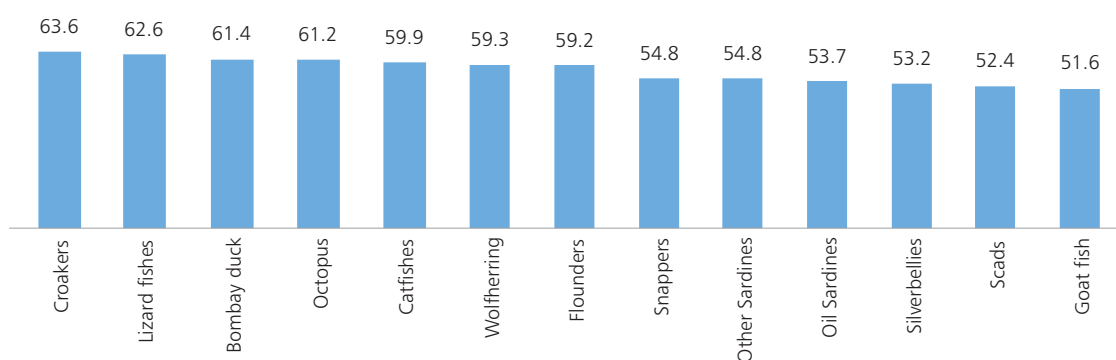


Fig 3. Low marketing efficient species

breams, lizard fishes, snappers, scads and oil sardine. The large number of intermediaries and the high marketing margins lead to the decline in marketing efficiency of the low value fishes (Figs. 2 and 3).

Conclusion

The estimated value of marine fish landings during 2017 have shown 8.4% and 20.7% increase over 2016 and 2015 respectively. The prices of low value fish species have not been stable for several reasons and the prices varied depending on species, seasons and abundance of other fish and fishery products. During glut seasons, many species earned a lower price and thus fell into the

low value category. The prices of many of the low value food fishes are likely to go up owing to the ever-widening gap between demand and supply. It is not the quantity of fishes landed but the value of the fishes landed that is important as it could offer breathing space to the fishermen if they fail to catch adequate quantity.

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