

Valuation of marine fish landings in India for period 2019-2021

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The present study portrays the trend in the valuation of marine fish landings during the period 2019-2021 based on the price data of the commercially traded fish species which is collected on a weekly/ fortnightly basis through a well-structured schedule MAP (market price). The collected data is tabulated and the average prices are worked out taking into consideration the parameters of seasonality and size ranges. The study throws light on the average price realized and marketing efficiency of major species across the country. The data has been generated/ collected in the shadow of an important underlying event - the covid pandemic which certainly played (and continues to play) an important role in reconfiguring and restructuring the world fisheries sector including for India. A rapid assessment by the ICAR-CMFRI pointed to an estimated revenue loss of ₹10,000 crores for the marine fisheries sector for the 21-day lockdown imposed initially in 2020. However, as the lockdown restrictions eased and activities including fishing activities resumed, in addition to the recovery due to lesser human activities, several adaptation and mitigation measures were adopted by the fishers and other stakeholders portraying the resilience of the sector and this has been reflected in the landings data. During 2021, the estimated value of marine fish landings at various landing centres was ₹53648 crores, (14.24% increase over 2020), in 2020 it was ₹46,962 crores, (22.86% decrease over 2019) and in 2019 it was ₹60,881 crores, (15.66% increase over 2018). The COVID pandemic resulted in reduced fishing efforts and resultant landings during the year 2020. However, the fishing holidays during 2020 resulted in increased landings and resultant valuation increase during 2021. At the retail level, the estimated value during 2021 was ₹76,640 crores (14.06% increase over 2020), ₹67194 crores (-27.24% decrease over 2019) in 2020 and ₹92356 crores (14.98% increase over 2018) in 2019 (Table 1).

The valuation of the marine fish landings at the landing centre (LCV) and retail centre (RCV) across the coastal states (Table 2) indicated that Gujarat registered the highest valuation of marine fish at the LCV and RCV during the period 2019 (20.64%), 2020(19.77) and the third position in 2021(18.90%). Kerala held the first position in LCV (21.70%) during 2021 and hold second during 2020 (16.43%) and 2019 (20.35%). Karnataka holds the second position in LCV during 2021 (19.11%) and retained the third position in LCV throughout the periods of 2020 (11.81%) and 2019(11.69%). The analysis of Retail Centre valuation indicates that Gujarat retained the first position over the period 2021 (21.06%) - 2019 (20.98%) and Kerala registered the second during 2021 (18.66%) - 2019 (18.96%) respectively.

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 2010-2021(Fig.1). The landing centre price (LCP) shows a steady increase from ₹67.67 to ₹176.04 crores (160% increase over 2010) and the retail centre price (RCP) have increased from ₹110.44 to ₹251.49 (128% increase over 2010) respectively. It was found that the landing centre prices realized better growth when compared to retail centres.

Table 1. Percentage changes in the valuation of fish landings - 2019-2021

Parameters	2021	2020	2019
Landing Centre Valuation(LCV) (Crores)	53648 (14.24)	46,692 (-22.86)	60881 (15.66)
Retail Centre Valuation(RCV) (Crores)	76640 (14.06)	67194 (-27.24)	92356 (14.98)

Table 2. Valuation of fish landings across states (₹ crores)

State	Landing Centre Valuation			Retail Centre Valuation		
	2021	2020	2019	2021	2020	2019
Andhra Pradesh	2808 (5.23)	2675 (5.49)	3341 (5.70)	4048 (5.28)	4345 (6.47)	5480 (5.93)
Goa	1139 (2.12)	1162 (2.47)	601 (0.99)	1301 (1.70)	1471 (2.19)	874 (0.95)
Gujarat	10138 (18.90)	9285 (19.77)	12568 (20.64)	16138 (21.06)	13159 (19.58)	19379 (20.98)
Karnataka	10253 (19.11)	5547 (11.81)	7118 (11.69)	12685 (16.55)	7171 (10.67)	10030 (10.86)
Kerala	11639 (21.70)	7714 (16.43)	12387 (20.35)	14304 (18.66)	10215 (15.20)	17515 (18.96)
Maharashtra	2625 (4.89)	4164 (8.87)	6402 (10.52)	3317 (4.33)	5428 (8.08)	9835 (10.65)
Odisha	3084 (5.75)	2784 (5.93)	1563 (2.57)	4274 (5.58)	4560 (6.79)	2526 (2.74)
Puducherry	594 (1.11)	786 (1.67)	832 (1.37)	815 (1.06)	1104 (1.64)	1265 (1.37)
Tamil Nadu	7908 (14.74)	7492 (15.95)	10054 (16.51)	15179 (19.81)	12667 (18.85)	16696 (18.08)
West Bengal	2336 (4.35)	4723 (10.06)	4306 (7.07)	2934 (3.83)	6176 (9.19)	6370 (6.90)
Daman Diu	1124 (2.10)	630 (1.34)	1709 (2.81)	1644.6 (2.15)	897 (1.33)	2386 (2.58)
Total	53648	46962	60881	76640	67194	92356

The marine fisheries show seasonal variations to a great extent and the valuation of landings of the major species are given in Table 3. Indian mackerel's contribution to share in landings has increased from 6.13% to 6.98% during 2019-2021. Due to reduced volumes of the landings in 2020, the share in landings of oil sardine, ribbon fishes and non-penaeid prawns came to a low of 4.06% to 3.03%, 6.13% to 5.27% and (5.04% to 3.7%) respectively.

Marketing efficiency, measured as the Fishermen Share of the Consumer's Rupee (FSCR), across the major species of the different coastal states during the year 2019-2021 is indicated in Table 4. The marketing efficiency has improved over the period from 57.15% to 78.44%.

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(78.62), Black pomfret(78.06), Silver pomfret(77.2), cuttle fish (75.49) and Indian mackerel (73.32) registered higher marketing efficiencies compared to Lizard fish (62.58), Bombay duck (62.16), Crabs(61.92), Soles (60.96) and Oil sardine (58.44) which registered low marketing efficiencies. Several intermediaries and high marketing margins lead to the decline in marketing efficiency of the low-value fishes.

The estimate of the value of marine fish landings during 2021 have got 14.24% increase over 2020 and a 22.86%

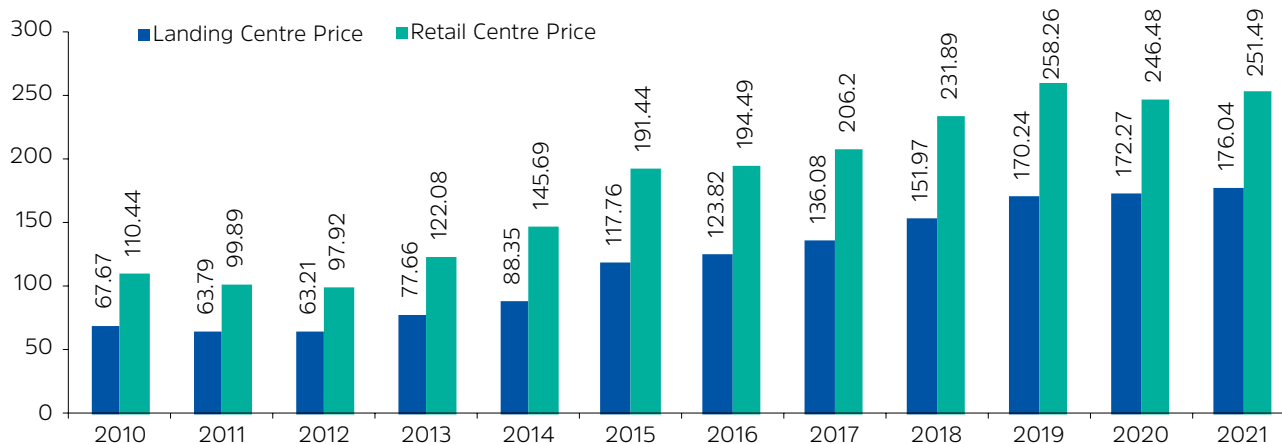


Fig. 1. Unit price at LC and RC levels (₹/kg) 2010-2021

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

Species	2019		2020		2021	
	Landings	Share %	Landings	Share %	Landings	Share %
Indian mackerel	166124	4.35	178735	6.56	212593	6.98
Ribbon fishes	219165	6.13	143596	5.27	141299	4.64
Non-penaeid prawns	180103	5.04	100749	3.7	155926	5.12
Penaeid prawns	194650	5.44	156434	5.74	168243	5.52
Threadfin breams	9078	0.25	123059	4.51	145446	4.77
Oil sardine	145292	4.06	82712	3.03	108041	3.37
Other perches	95720	2.08	74232	2.72	88962	2.92

Table 4. Marketing efficiency across states

State	2021	2020	2019	Average
Andhra Pradesh	69.37	61.57	60.97	63.97
Goa	87.55	78.99	68.76	78.44
Gujarat	62.82	70.56	64.85	66.08
Karnataka	80.83	77.35	70.97	76.38
Kerala	81.37	75.52	70.72	75.87
Maharashtra	79.14	76.71	65.09	73.65
Odisha	72.16	61.05	61.88	65.03
Puducherry	72.88	71.20	65.77	69.95
Tamil Nadu	52.10	59.15	60.22	57.15
West Bengal	79.62	76.47	67.60	74.56
Daman Diu	68.34	70.23	71.63	70.07
Total	70.00	69.89	65.92	68.60

increase over 2019. The price of low-value fish was not stable for many reasons resulting in exorbitant fluctuations over the time period. Covid Pandemic is one of the major reasons for these fluctuations and the long-term impact of the pandemic caused disruptions in the supply chain, including major uncertainties in production and marketing. The availability, quality of fish and consumption patterns were severely affected by the pandemic. Some species earned a comparatively lower price due to pandemics and fell into the low category. However, the prices of many of the low-value fishes are likely to go up during the pandemic owing to the widening gap between demand and supply. It is not the quantum of fish landed but the value of the

fish landed that is important as it could offer breathing space to the fishermen if they fail to produce(or catch) adequate quantity. But, alterations occurred in the fish landed due to pandemics and because of the demand-supply relationship they fetch a higher price leading to better price realization.

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