CMFRI Booklet No.10/2018

Marine Fish Landings in India 2017

ICAR-Central Marine Fisheries Research Institute
(Department of Agricultural Research and Education,
Ministry of Agriculture & Farmers' Welfare, Government of India)
P.B. No. 1603, Ernakulam North P.O., Kochi - 682 018

Marine Fish Landings in India 2017

Published by
Dr. A. Gopalakrishnan
Director
ICAR-Central Marine Fisheries Research Institute
P. B. No. 1603, Ernakulam North P. O.
Kochi - 682 018, Kerala, India

www.cmfri.org.in
E-mail : director.cmfri@icar.gov.in

Prepared by
Fishery Resources Assessment Division
CMFRI, Kochi

Cover Design
Abhilash P. R.

Citation
FRAD, CMFRI, 2018. *Marine Fish Landings in India 2017,* Technical Report, CMFRI, Kochi

---

The estimates provided here is the data product of CMFRI based on stratified multistage random sampling design and may have to be reused with due citation credentials.

Marine Fish Landings in India | 2017

ICAR-Central Marine Fisheries Research Institute
(Department of Agricultural Research and Education,
Ministry of Agriculture and Farmers' Welfare, Government of India)
P. B. No. 1603, Ernakulam North P. O., Kochi - 682 018
E-mail : director.cmfri@icar.gov.in
Tel : +91 484 2394357, Fax : +91 484 2394909

June 2018

Indian Marine Fisheries in 2017 at a Glance

1. Marine fish landings in India registered 5.6% increase to reach 3.83 million tonnes in 2017. Gujarat with 7.86 lakh tonnes of marine fish landings in 2017 ranked first among the maritime states for the fifth consecutive year.

2. Marine fish landings improved in all the maritime states other than Tamil Nadu and indicated a palpable dip in the UTs of Puducherry as well as Daman & Diu.

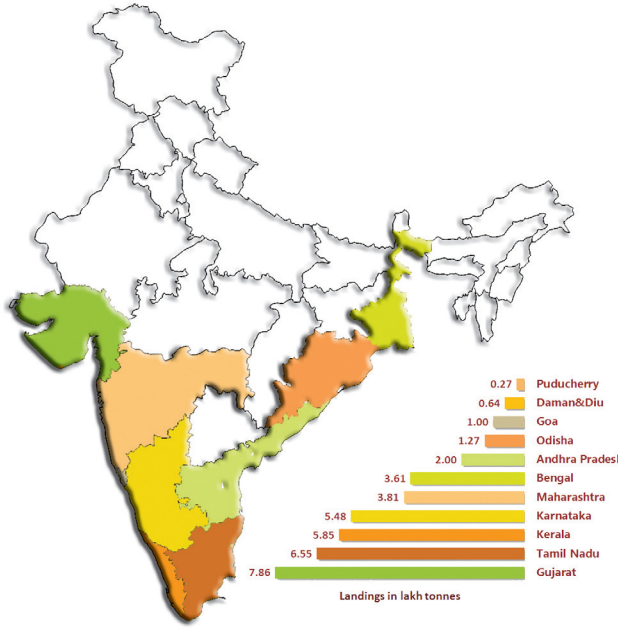
3. A major come back for oil sardine, which topped the resource list with 3.37 lakh tonnes. The western coastal states resulted in good production of oil sardine as Kerala registered 1.25 lakh tonnes. But, east coast witnessed a decline in oil sardine landings with 83% in Andhra Pradesh and 36% in Tamil Nadu respectively.

4. Though Karnataka was placed fourth among maritime states, the catch from this region is on a high notch with its historical high production; Bullseyes (*Priacanthus* spp.) emerging as a dominant fishery.

5. Improved fishing efforts, particularly of dolnets in Maharashtra piloted the state to fifth rung in the list of marine fish contributors. North-eastern coastal region is indicating a revival in its marine fishery with improved catches observed in both West Bengal and Odisha.

6. Cyclone Ockhi was devastating and affected the fishing days in the coastal states of Kerala, Tamil Nadu and Karnataka. Reduced frequency of cyclones in Odisha boosted the number of fishing days and catch of the state.

India stands at seventh position with regard to marine fish production in the world. The sector supports nearly 3.79 million fisher population, meets nutritional requirements of a significant portion of its population, gives export earnings to the tune of 30,000 crore rupees and provide employment to about one million fishers. Very high diversity of the marine fish resources in the Indian waters is a blessing to absorb the fishing pressure being exerted. The coast line of main land is composed of 9 maritime states and two union territories. Sustained marine fish production from the sea can be ensured only if harvest is made judicially through management and control. The Central Marine Fisheries Research Institute (CMFRI) is mandated to monitor the marine fishery resources by estimating the quantity of marine fish harvested and derive management measures to keep the harvest at sustainable level for each of the commercially important marine fishery resources. The resource wise estimates of landings of marine fish are made through a scientific data collection system developed by CMFRI and being used every year.



The estimated marine fish landings for the peninsular India was 3.83 million tonnes in 2017, which was second highest ever, slightly below 3.92 million tonnes in 2012. The landings witnessed a marginal increase of 5.6% compared to 2016.

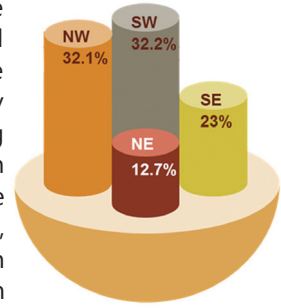
Estimated marine fish landings (tonnes) in India 2017

Pelagic finfish	
CLUPEOIDS	
Wolf herring	18566
Oil sardine	337390
Other sardines	226970
Hilsa shad	63437
Other shads	6967
Anchovies	
Coilia	33574
Setipinna	8777
Stolephorus	64859
Thryssa	38003
Other clupeids	67607
Bombayduck	145115
Half Beaks&Full Beaks	7883
Flying Fishes	1345
Ribbon Fishes	239355
CARANGIDS	
Horse Mackerel	51964
Scads	108010
Leather-jackets	16237
Other carangids	120019
MACKERELS	
Indian mackerel	287880
Other mackerels	636
SEER FISHES	
Scomberomorus commerson	30170
Scomberomorus guttatus	18163
Scomberomorus lineolatus	74
Acanthocybium solandri	268
TUNNIES	
Euthynnus affinis	27680
Auxis spp.	16640
Katsuwonus pelamis	10559
Thunnus tonggol	7350
Thunnus albacares	13505
Other tunnies	4656
Bill Fishes	11328
Barracudas	33337
Mullets	7939
Unicorn Cod	325
Others	
Seaweeds[#]	19640
Miscellaneous	68279

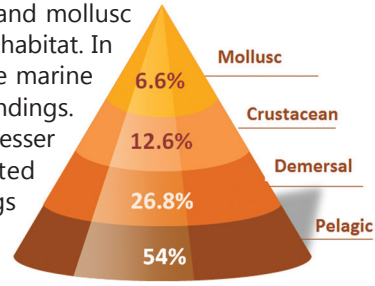
Demersal finfish	
ELASMOBRANCHS	
Sharks	19777
Guitarfishes	2628
Rays	17766
Eels	13174
Catfishes	88177
Lizard Fishes	57803
PERCHES	
Rock cods	53924
Snappers	10518
Pig-face breams	16483
Threadfin breams	157773
Bullseyes	143451
Other perches	53807
Goatfishes	20306
Threadfins	10764
Croakers	150241
Silverbellies	89901
Whitefish	3807
POMFRETS	
Black pomfret	12622
Silver pomfret	28789
Chinese pomfret	5466
FLAT FISHES	
Halibut	2069
Flounders	90
Soles	43173
Crustaceans	
Penaeid prawns	209513
Non-penaeid prawns	202748
Lobsters	2863
Crabs	53476
Stomatopods	14784
Molluscs	
Mussels, Oysters and Clams[#]	103639
Other Bivalves	52
Gastropods	2083
Cephalopods	
Squids	131774
Cuttlefish	109089
Octopus	10816
TOTAL	**3957853**

[#]The estimates are based on an alternate method and are excluded from the comparisons made. The comparisons are based on **3834574** tonnes (3957853-19640-103639=3834574)

The region-wise breakup of the landings indicated that southwest and northwest contributed almost equally to the landings spectrum with 12.33 lakh tonnes and 12.32 lakh tonnes respectively whereas the southeast contributed 8.82 lakh tonnes and only 4.88 lakh tonnes by northeast. In the reporting year, 4 maritime states landed more than 5 lakh tonnes accounting for 67% of country's marine fish landings. Among them, Gujarat continued to be in the topmost position for the fifth consecutive year with 7.86 lakh tonnes. The state of Tamilnadu stood behind Gujarat with 6.55 lakh tonnes. Kerala has overtaken Karnataka to emerge as the third largest producer in 2017.



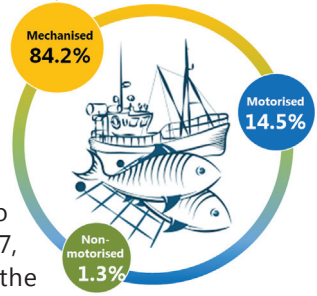
The marine fishery resources are categorised into four assemblage groups namely pelagic, demersal, crustacean and mollusc based on their biological features and habitat. In India, pelagic finfishes dominate in the marine fish landings contributing 54% of the landings. Indian oil sardine, mackerel, ribbon fish, lesser sardines and Bombayduck contributed almost 60% of the pelagic fish landings in 2017. Of this, the oil sardine alone accounted for 16.3%. The demersal finfishes contributed 26.8% to total landings. The major demersal resources landed were bullseyes (*Priacanthus* spp.), threadfin breams, croakers, silverbellies and catfishes. Crustaceans include high value resources like prawns, crabs and lobsters and the contribution from this assemblage group was 12.6%. Molluscs include squids, cuttle fish, clams and oysters which accounted for the remaining 6.6%.



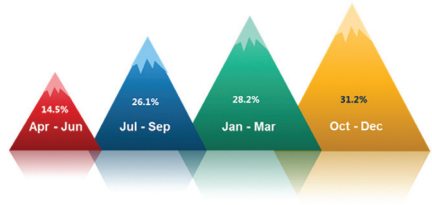
In 2017, more than 788 marine fish species were identified in the landings along the Indian coast with maximum along Tamil Nadu followed by Kerala and Maharashtra. Along the west coast 618 species were landed whereas the number of species landed along the east coast was 592. Oil sardine, with 8.8% (3.37 lakh tonnes) contribution was the most dominant resource in marine fish landings in India. Oil sardine landings during the year recorded an increase of 38% mainly due to recovery of sardine fishery in Kerala. The second important resource in terms of contribution towards landings was Indian mackerel, accounting for 7.5%. The resources which have contributed largely to overall landings is given in the table.

Species/ Group	Landings (lakh tonnes)	Major contributing state	Percentage contribution from the state
Oil sardine	3.37	Kerala	38
Indian mackerel	2.88	Karnataka	42
Ribbon fishes	2.39	Gujarat	48
Cephalopods	2.31	Tamil Nadu	25
Lesser sardines	2.27	Tamil Nadu	49
Penaeid prawns	2.08	Kerala	21
Non-penaeid prawns	2.02	Gujarat	73
Threadfin breams	1.57	Kerala	34
Croakers	1.50	Gujarat	30
Bullseyes	1.43	Karnataka	44

The fishery in the country is categorised into three sectors based on the type of fishing crafts used namely mechanised, motorised and non-motorised. Mechanised are those fishing crafts that use machine power for both propulsion of the fishing craft as well as operation of the fishing gear whereas motorised are those fishing crafts that use machine power only for propulsion of the craft. The non-mechanised fishing crafts do not use machine power of any kind. In 2017, 84.2% of the landings in India was by the mechanised sector, 14.5% was by motorised sector and only 1.3% from the non-mechanised sector. The overall catch rates per trip for the mechanised fishing crafts operated along the Indian coast during 2017 was 1568 kg, for motorised fishing crafts it was 122 kg and for non-motorised category it were 55 kg. The overall per hour catch rates were 50 kg for mechanised, 20 kg for motorised and 18 kg for non-motorised.

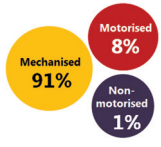


Seasonal behaviour of landings indicate that 31.2% of the total landings was observed in the last quarter, followed by 28.2% in the first quarter, 26.1% in the third quarter and only 14.5% in the second quarter. When examined at month level the maximum landings (11.6%) was in December and the least was in June. The following segments explain the salient features of landings in each maritime state/U.T.



WEST BENGAL

Major Resources (t)	
Hilsa shad	57991
Bombayduck	37952
Lesser sardines	29771
Catfishes	27354
Penaeid prawns	25142
Anchovies	20380

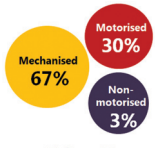


66% Pelagic
23% Demersal
10% Crustacean
1% Mollusc

- The state showing a steady increasing trend since 2014, recorded a landings of 3.6 lakh tonnes this year which is the maximum in the last six years.
- Hilsa shad recorded a decline of 35% in its landings, but remained as the most abundant resource.
- Lesser sardine showed four time hike in its landings - placing it as the third most abundant resource.
- Two-fold increase in the catch and effort of trawlers.
- Gillnetters targeting the Hilsa resources, were the major contributor.
- 84% of the total landings took place in the fishing harbours of South 24 Parganas district.

ODISHA

Major Resources (t)	
Croakers	14113
Lesser sardines	13261
Ribbon Fihes	10502
Penaeid prawns	8615
Anchovies	8056
Indian mackerel	7603

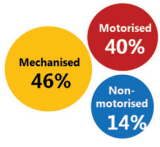


59% Pelagic
30% Demersal
10% Crustacean
1% Mollusc

- Sharing 1/4th of the marine fish catch in the north-east region, Odisha yielded 1.27 lakh tonnes during the reporting year.
- Lesser sardine improved its catch with 87% hike.
- All the major clupeid resources showed an increase in their catch where Hilsa shad landings reached 4,529 tonnes which is the maximum in last sixteen years.
- The main progress was in the landings of gillnetters, both in mechanised and motorised sectors while trawl fishery was found to be almost on par with last year's catch.
- Considerable improvement in the landings from the fishing harbours in Balasore district.

ANDHRA PRADESH

Major Resources (t)	
Lesser sardines	39014
Indian mackerel	20547
Ribbon fishes	15476
Penaeid prawns	14932
Anchovies	9035
Croakers	8650

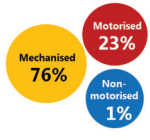


63% Pelagic
25% Demersal
10% Crustacean
2% Mollusc

- The estimated marine fish landings was 1.99 lakh tonnes, indicating a slight increase of 4% compared to 2016.
- Major increase was noticed in the landings of Lesser sardines (61%).
- Penaeid prawns and Indian mackerel landings showed a decline of 26% and 10% respectively compared to previous year.
- About 40% of the catch was by Sona boats, which is a multi-day fishing boat; around 21% of the fish was landed by gillnetters.
- Major portion of the landings was from East Godavari district (42%), followed by Visakhapatnam (21%) and Srikakulam (19%).

TAMIL NADU

Major Resources (t)	
Lesser sardines	110193
Silverbellies	76221
Cephalopods	61098
Oil sardine	51716
Penaeid prawns	23159
Indian mackerel	21928

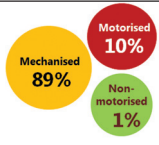


52% Pelagic
32% Demersal
6% Crustacean
10% Mollusc

- 7% decline in the landings yielding 6.55 lakh tonnes.
- Oil sardine landings encountered a huge drop of 36% whereas Lesser sardine regained its previous prominence of more than 1 lakh tonnes.
- Silverbellies, one of the major resources in the state was maintaining a similar trend.
- Cephalopods showed a better catch while landings of penaeid prawns and Indian mackerel decreased considerably.
- As always, Ramanathapuram district contributed maximum (29%) share.
- Kanyakumari district improved its catch with a two-fold increase even though affected by the catastrophic Ockhi cyclone at the end of the year.

PUDUCHERRY

Major Resources (t)	
Cephalopods	4518
Penaeid prawns	3197
Scads	2903
Silverbellies	1162
Ribbonfishes	927
Croakers	787

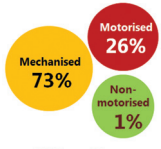


40% Pelagic
28% Demersal
15% Crustacean
17% Mollusc

- The state recorded a drastic decline of 40% compared to the previous year yielding 27,040 tonnes which is the lowest in last six years.
- Major resources such as oil sardine, silverbellies, penaeid prawns and croakers showed a decreasing trend.
- This is the first time where *Decapterus* spp. were listed as one among the topmost resources in the state which showed five-fold increase in its landings.
- 35% reduction in trawl catch with decreased catch rate and gillnetters also found to be less productive.
- Fishing harbours in Karaikal and Pondicherry are the main contributors to the state's marine fish production.

KERALA

Major Resources (t)	
Oil sardine	126988
Penaeid prawns	43468
Scads	43463
Cephalopods	43213
Threadfin breams	41841
Indian mackerel	33336

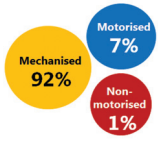


62% Pelagic
21% Demersal
9% Crustacean
8% Mollusc

- Marine fish production of the state showed a 12% growth with 5.85 lakh tonnes, owing to the resurgence of oil sardine fishery.
- Landings of sardine attained nearly 3 times hike.
- Ockhi cyclone which hit Kerala was a major setback to the marine fisheries sector.
- Indian mackerel continued to show a declining trend for the past two years, whereas ribbonfish landings recorded an increase of about 63%.
- An improved catch in shrimps with *Metapenaeus dobsoni* dominating in the group.
- Ernakulum district contributed 26% to Kerala landings.

KARNATAKA

Major Resources (t)	
Indian mackerel	119527
Oil sardine	98082
Bullseyes	63584
Scads	30261
Threadfin breams	27755
Cephalopods	26129

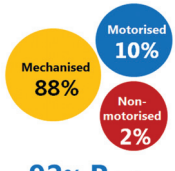


65% Pelagic
25% Demersal
5% Crustacean
5% Mollusc

- The state recorded landings of 5.5 lakh tonnes which is the maximum in the past accounts.
- Indian mackerel dominated with 22% of the state's total catch and 42% of the country's total mackerel catch.
- Oil sardine and ribbonfish showed remarkable increase.
- Trawl landings which is always the key part of the state's total yield showed a 10% decrease this year.
- With increased effort 40% hike in purse seine landings where oil sardine and mackerel jointly formed 80% of the catch.
- Mangalore and Malpe, the prime harbours contributed about 62% of the total landings of the state.

GOA

Major Resources (t)	
Oil sardine	48054
Indian mackerel	20546
Tunnies	7909
Horse Mackerel	4341
Moonfish	4200
Priacanthus spp.	3094

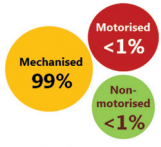


92% Pelagic
6% Demersal
2% Crustacean

- A significant growth of 64% in the state's total landings, the estimate being 1.0 lakh tonnes.
- Nearly half of the landings constituted by oil sardine, which attained a two-fold hike in its catch.
- Indian mackerel also showed a 52% increase with 20,546 tonnes.
- Nearly 83% of the landings was by purse seiners where oil sardine and mackerel prevailed with 69% share.
- Catch rate of purse seiners was found to be one of the highest in the country accounting more than 5 tonnes per unit in peak seasons.
- Remarkable increase from the seine net fishery belonging to motorised sector.

MAHARASHTRA

Major Resources (t)	
Non-penaeid prawns	41296
Cephalopods	38410
Penaeid prawns	37642
Indian mackerel	37299
Croakers	36658
Threadfin breams	27538

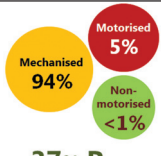


40% Pelagic
29% Demersal
21% Crustacean
10% Mollusc

- 3.8 lakh tonnes in 2017, a 30% increase in the landings compared to 2016, accounting for 9.94% of all India marine fish landings which piloted the state to fifth rung in the list of marine fish contributors.
- Major contribution was from New Ferry Wharf (30.8 %) and Sassoon Docks (21.1%).
- Highest contribution of 54% from multiday trawlers. The contributions of dolnets and purse seines were 20% and 17% respectively.
- Greater Mumbai contributed as high as 61%, as the major harbors are situated in it, and the contributions of Thane and Sindhudurg were almost the same.

GUJARAT

Major Resources (t)	
Non-penaeid prawns	148973
Ribbon fishes	113904
Bombayduck	76574
Cephalopods	61689
Croakers	44771
Priacanthus spp.	35132

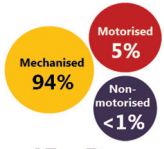


37% Pelagic
30% Demersal
25% Crustacean
8% Mollusc

- Highest contributor to Indian marine fish landings with 7.86 lakh tonnes registering a marginal increase of 12,122 tonnes.
- Veraval, Porbandar, Mangrol and the three Bombayduck landing centers (Jafrabad, Nawabandar and Rajapara) notched 82% of the landings.
- Major gears operated in the mechanised sector were trawlnets, dolnets, gillnets, hooks & lines and bagnets.
- Contribution of multiday trawlers was 51% which showed a decrease of 1.6% while the units in operation marked a 16% decrease.
- Among the districts, Gir Somnath contributed 49% while Porbandar and Amreli accounted for 16% and 12% respectively.

DAMAN & DIU

Major Resources (t)	
Ribbon fishes	15101
Cephalopods	6681
Croakers	4693
Catfishes	4498
Tunnies	3852
Rock cods	3359



45% Pelagic
40% Demersal
5% Crustacean
10% Mollusc

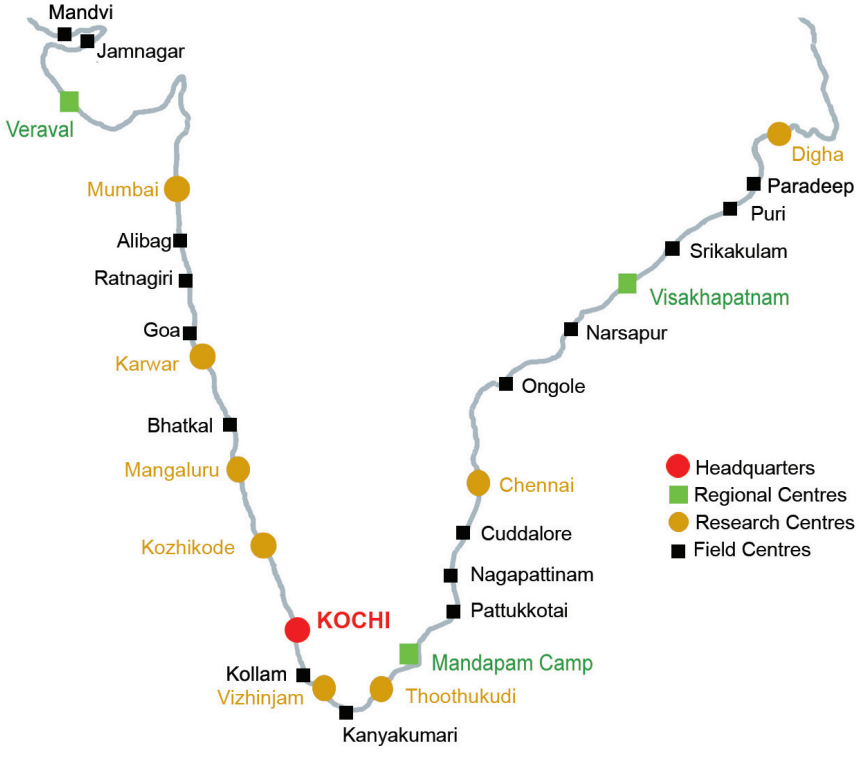
- Recorded 64,070 tonnes of marine fish landings which saw a palpable dip from above one lakh tonnes in 2016.
- Contribution of multiday trawlers were 44,042 tonnes which was 69% of the landings, mainly operational in Vanakbara among the five major landing centres.
- Catch per unit effort of multiday trawlers had a dip from 5,999 kg in 2016 to 4,290 kg in 2017. The catch per hour also decreased from 67 kg to 45 kg.
- Dolnets, gillnets, purse seines and single day trawlers were the other gears operated in mechanised sector.

Valuation of fish landings across states

The estimate of the value of marine fish landings during 2017 at landing centre level was ₹52,431 crores, (8.4% increase over 2016). The unit price per kg of fish at landing centre was ₹136.7 (5.6% increase over 2016). At the retail level, the estimated value was ₹78,408 crores (7.0% increase over 2016). The unit price at the retail market level was ₹204.5 (4.2% increase over 2016). The marketing efficiency determining the producers share of the consumers' price was found to be 66.9 (1.3% increase over 2016).

State	Valuation (₹ crores)			
	Landing Centre		Retail Centre	
	2016	2017	2016	2017
Kerala	9149	9699	12398	13501
Karnataka	6247	6639	9108	10196
Goa	997	1245	1451	1796
Maharashtra	5369	6397	8313	9488
Gujarat	8427	9931	13130	14729
Tamil Nadu	6492	6807	10728	11088
Puducherry	605	432	868	618
Andhra Pradesh	2516	2679	3916	4043
Odisha	1645	1729	2836	2901
West Bengal	5501	5783	8190	8490
Daman & Diu	1433	1089	2351	1557
Total	**48381**	**52431**	**73289**	**78408**

Data Collection Network of CMFRI



Published by

Director, CMFRI, Kochi-682018

Prepared by

Fishery Resources Assessment Division
www.cmfri.org.in, Email: director.cmfri@icar.gov.in