

## **GROWTH AND PERFORMANCE OF MARINE FISHERIES SECTOR IN ANDHRA PRADESH**

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### **ABSTRACT**

*Fishing has been considered as a primary livelihood option since time immemorial, for the occupants of the coastal belt in India, stretching along 8129 kms. Fisheries play a predominant strategic role in the economic activity of our country by its contribution to national income, foreign exchange, food and employment. Moreover it supports the deprived coastal community with sufficient nutritional security which is otherwise unreachable for such segment. Marine fisheries sector produces about 2.71 million tonnes of fish per annum. About 12.49 lakh fisherfolk operate using diverse types of craft-gear combinations with regional and seasonal variations all along the Indian coastline. The secondary sector provides employment to more than 15 lakh people and another two lakh people is employed in the tertiary sector. It is estimated that fishery and allied activities provide livelihood security to about 30 million people (Sathiadhas et al, 2007).*

**KEYWORDS:** livelihood, employment, fishing villages, Fisheries, Marine

### **INTRODUCTION**

Fishing has been considered as a primary livelihood option since time immemorial, for the occupants of the coastal belt in India, stretching along 8129 kms. Fisheries play a predominant strategic role in the economic activity of our country by its contribution to national income, foreign exchange, food and employment. Moreover it supports the deprived coastal community with sufficient nutritional security which is otherwise unreachable for such segment. Marine fisheries sector produces about 2.71 million tonnes of fish per annum. About 12.49 lakh fisherfolk operate using diverse types of craft-gear combinations with regional and seasonal variations all along the Indian coastline. The secondary sector provides employment to more than 15 lakh people and another two lakh people is employed in the tertiary sector. It is estimated that fishery and allied activities provide livelihood security to about 30 million people (Sathiadhas et al, 2007).

### **OBJECTIVES AND METHODOLOGY**

This paper main objective is made to analyze overview of the marine fisheries sector in Andhra Pradesh. This paper is based on secondary data. Simple statistical tools like percentages and growth rates has been used wherever is necessary.

Fishing villages all along the Indian coast are comparatively backward, synchronized with underdevelopment. Marine fishery sector in Andhra Pradesh exhibits disparities, both inter-sectoral and intra-sectoral. Lack of permeation of development efforts to fishing community is tacit in spite of State's overall advancement. Literacy rate in marine fishing villages in Andhra Pradesh is 32.47 per cent, far lower than State literacy rate of 60.47 per cent. A paradoxical picture of low level of human development in fisheries sector is underscored by lower sex ratio of coastal fishing villages (943) compared to the State average of 978.

**Table 1**  
**Variations in fishing crafts from 2005 to 2010 in Andhra Pradesh**

State	Type of Craft	2005 Census	2010 Census	Difference
Andhra Pradesh	Mechanized	2541	3167	+626
	Motorized	14112	10737	-3375
	Non-Motorized traditional boats	24386	17837	-6549
	Total	41039	31741	-9298

Source: Marine Fisheries Census 2010

There is a wide difference seen in the various crafts between the Marine Craft Census 2005 and 2010. Andhra Pradesh only mechanized crafts have increased. A decreased trend observed in Non-motorized crafts traditional boats Andhra Pradesh.

### PRODUCTION AND EXPORTS IN THE FISHERIES SECTOR OF ANDHRA PRADESH

Andhra Pradesh stands first in total fish and prawn/shrimp production in India since 2013-14 both in terms of production and value. The contribution of fisheries sector is 6.01 % in A.P's. GSDP, whereas the fisheries contribution is about 0.83% of GDP of the nation. The overall fish

production has more than doubled in the past one decade from 8.14 lakh tons in 2005-06 to 19.64 lakh tones in 2014-15. The share of Andhra Pradesh in India's sea food exports has increased from about 20% in 2009-10 to about 40% in 2013-14. During 2009-10 the exports from Andhra Pradesh was Rs. 2,100 crores but by 2013-14 exports have increased to Rs. 12,100 crores. During 2014-15, the marine exports have been increased to an estimated value of Rs. 16,000 Crores.

### DEMOGRAPHIC PROFILE OF MARINE FISHERMEN IN ANDHRA PRADESH

District wise Profile of the Marine Fishermen Population in Andhra Pradesh is given in Table 2.

**Table 2**  
**Profile of Marine Fishermen Population in Andhra Pradesh**

Districts	fish landing centers	Fishing Villages	Fishermen population	Number of fishermen families	Average Family size	Average population/fishing village
Srikakulam	55	128	98450	25579	4	769
Vizianagaram	12	20	20812	5138	4	1041
Visakhapatnam	66	63	113632	28779	4	1804
East Godavari	29	97	165208	44476	4	1703
West Godavari	7	7	9188	2451	4	1313
Krishna	37	43	43005	13073	3	1000
Guntur	8	36	39333	11771	3	1093
Prakasam	39	67	51511	15103	3	769
Nellore	100	94	64289	17057	4	684
Andhra Pradesh	353	555	605428	163427	4	1091

Source: Marine Fisheries Census 2010

The above table deals that the coast of Andhra Pradesh having 353 fish landing centers spreading over nine coastal districts, the highest fish landing centers being shared by Nellore district (100) second place Visakhapatnam district (66). Srikakulam district has maximum fishing villages (128) and West Godavari with minimum (7). Number of landing centres is found proportionate to fishing villages. Average fisher households per village in the state is 1091 while the highest is

in Visakhapatnam district (1804) and lowest is in Nellore district (684). Maximum fisher population was observed in East Godavari district (27.29 per cent) followed by Visakhapatnam (18.77 per cent) and Srikakulam (16.26 per cent).

### LITERACY STATUS OF MARINE FISHERMEN IN ANDHRA PRADESH

The district wise Literacy status of marine fishermen in Andhra Pradesh is given in Table -3.

**Table 3**  
**Literacy status of marine fishermen in Andhra Pradesh**

State	Status of Education							
	Primary		Secondary		Above Secondary		Total	
	Male	Female	Male	Female	Male	Female	Male	Female
Srikakulam	6778 (35.31)	6063 (44.56)	9354 (48.72)	6444 (47.36)	3066 (15.97)	1098 (8.07)	19198 (100.00)	13605 (100.00)
Vizianagaram	1697 (68.37)	1339 (76.12)	550 (22.16)	379 (21.55)	235 (9.47)	41 (2.33)	2482 (100.00)	1759 (100.00)
Visakhapatnam	10047 (49.42)	9110 (56.75)	8548 (42.05)	6279 (39.11)	1734 (8.53)	665 (4.14)	20329 (100.00)	16054 (100.00)
East Godavari	16704 (56.42)	16226 (60.86)	10085 (34.07)	8900 (33.38)	2815 (9.51)	1535 (5.76)	29604 (100.00)	26661 (100.00)
West Godavari	584 (38.45)	549 (45.15)	711 (46.81)	593 (48.77)	224 (14.75)	74 (6.09)	1519 (100.00)	1216 (100.00)
Krishna	4840 (52.63)	3751 (53.36)	3225 (35.07)	2646 (37.64)	1132 (12.31)	632 (8.99)	9197 (100.00)	7029 (100.00)
Guntur	2164 (36.53)	1984 (44.18)	2451 (41.37)	1783 (39.70)	1309 (22.10)	724 (16.12)	5924 (100.00)	4491 (100.00)
Prakasam	4332 (51.39)	3582 (60.57)	2913 (34.56)	1845 (31.20)	1184 (14.05)	487 (8.23)	8429 (100.00)	5914 (100.00)
Nellore	5734 (72.86)	4513 (78.16)	1734 (22.03)	1147 (19.86)	402 (5.11)	114 (1.97)	7870 (100.00)	5774 (100.00)
Andhra Pradesh	52880 (50.58)	47117 (57.11)	39571 (37.85)	30016 (36.86)	12101 (11.57)	5370 (6.51)	104552 (100.00)	82503 (100.00)

Source: Marine Fisheries Census 2010

The above table shows that district wise Literacy status of marine fisherfolk in Andhra Pradesh. Total marine fisherfolk literacy 53.00 primary education, male 50.58 per cent female 57.11 per cent. 37.00 per cent of fisheries Secondary level education and only 10.00 per cent of fisheries above secondary education.

#### GENDER DIMENSION IN ANDHRA PRADESH FISHERFOLK

The activity wise occupational structure of fisherfolk engaged in secondary sector in Andhra Pradesh is given in Table -4.

**Table- 4.**  
**Gender wise Occupational Structure**

S.No	Activities	Number of fisherfolk involved			Male female participation ratio
		Male	Female	Total	
1	Marketing	4289 (10.91)	35035 (89.09)	39324 (100.00)	8.2
2	Making/repairing of net	11947 (84.84)	2135 (15.16)	14082 (100.00)	0.2
3	Curing/processing	1252 (7.43)	15596 (92.57)	16848 (100.00)	12.5
4	Peeling	308 (10.61)	2596 (89.39)	2904 (100.00)	8.4
5	Labourer	16580 (25.85)	47561 (74.15)	64141 (100.00)	2.9
6	Other	1224 (43.87)	1566 (56.13)	2790 (100.00)	1.3
	<b>Total</b>	35600 (25.41)	104489 (74.59)	140089 (100.00)	2.9

Source: Marine Fisheries Census 2010

The above table analysis that occupational activities like fish marketing and labour for the various tasks from landing centre to retail points provide employment to more than 74.00 per cent of the fisherfolk. While marketing is dominated by females (MF ratio (male female ratio) of 8.2), labour in the secondary sector is done by men (MF ratio of 2.9). Curing / processing and peeling are undertaken by women role is very high (MF ratio of 12.5 and 8.4 respectively). Male female

participation in secondary sector is almost female dominated by the ratio of 2.9. Of the fisher population engaged in secondary sector, women accounted for 74.59 per cent of the work force in marketing, curing/processing and peeling sectors.

#### MEMBERSHIPS IN FISHERIES AND OTHER CO-OPERATIVES

The district wise memberships in fisheries co-operatives and other co-operatives are given in Table -5.

**Table-5**  
**Memberships in co-operatives**

District	Members in		
	Fisheries co-operatives	Other co-operatives	Total
<b>Srikakulam</b>	6634 (29.27)	16033 (70.73)	22667 (100.00)
<b>Vizianagaram</b>	374 (11.39)	2911 (88.61)	3285 (100.00)
<b>Visakhapatnam</b>	6704 (31.81)	14371 (68.19)	21075 (100.00)
<b>East Godavari</b>	4056 (13.75)	25445 (86.25)	29501 (100.00)
<b>West Godavari</b>	170 (10.11)	1512 (89.89)	1682 (100.00)
<b>Krishna</b>	3528 (27.87)	9129 (72.13)	12657 (100.00)
<b>Guntur</b>	4907 (63.68)	2799 (36.32)	7706 (100.00)
<b>Prakasam</b>	5457 (35.34)	9984 (64.66)	15441 (100.00)
<b>Nellore</b>	6045 (93.24)	438 (6.76)	6483 (100.00)
<b>Andhra Pradesh</b>	37875 (31.43)	82622 (68.57)	120497 (100.00)

Source: Marine Fisheries Census 2010

The above table analysis that memberships in co-operative societies out of 120497 total members 68.57 per cent fisheries co-operatives 31.43 percent other co-operatives having memberships. In Nellore district 93.24 per cent members in fisheries co-operatives. The lowest fisheries co-operative members in West Godavari district only 10.11 percent.

#### **DISTRICT WISE HOUSING AND EDUCATION FACILITIES AVAILABLE TO THE FISHERIES SECTOR IN ANDHRA PRADESH**

District wise Housing and Education Facilities in Andhra Pradesh are given in Table-6.

**Table -6**  
**Housing and Education Facilities in District wise**

District	Housing		Education			
	Kutcha houses	Pucca houses	Primary	Secondary	College	Technical institutions
<b>Srikakulam</b>	8437	17132	117	34	1	0
<b>Vizianagaram</b>	3660	1478	22	4	0	0
<b>Visakhapatnam</b>	8783	19996	77	18	2	5
<b>East Godavari</b>	11432	33044	116	24	5	3
<b>West Godavari</b>	211	2240	15	2	0	0
<b>Krishna</b>	4923	8150	45	12	0	1
<b>Guntur</b>	4511	7260	35	5	1	0
<b>Prakasam</b>	3278	11825	63	0	0	0
<b>Nellore</b>	3182	13875	81	0	0	0
<b>Andhra Pradesh</b>	48427	115000	271	99	9	9

Source: Marine Fisheries Census 2010

#### **GENERAL INFRASTRUCTURE FACILITIES AVAILABLE IN MARINE FISHERMEN VILLAGES IN ANDHRA PRADESH**

The district wise Infrastructure facilities available in fisheries villages are given in Table-7.

**Table-7**  
**District wise General Infrastructure / Facilities - Marine Villages**

District	Villages having							Number of					
	Electricity	Bus stop/stand	Hospitals	Police station	Post Offices	Mob.phone coverage	Internet facility	Banks	Fisheries Cooperative Societies	Other Co-operative Societies	Community centers	Theatres	Liquor shops
<b>Srikakulam</b>	127	52	2	1	29	120	1	3	83	1019	50	0	33
<b>Vizianagaram</b>	20	11	2	0	4	20	0	9	20	163	12	0	6
<b>Visakhapatnam</b>	63	40	1	1	9	63	1	10	66	1443	54	1	25
<b>East Godavari</b>	97	32	10	0	19	91	0	6	36	109	61	0	68
<b>West Godavari</b>	7	6	3	0	3	6	0	0	2	1	5	0	0
<b>Krishna</b>	43	26	4	3	12	43	1	6	56	37	17	4	40
<b>Guntur</b>	36	36	1	0	4	36	0	3	34	14	32	2	35
<b>Prakasam</b>	67	14	0	0	1	67	0	0	44	32	27	0	38
<b>Nellore</b>	87	59	7	2	4	86	1	3	17	1	9	0	1
<b>Andhra Pradesh</b>	547	276	30	7	85	532	4	40	358	2819	267	7	246

Source: Marine Fisheries Census 2010

Table 2.17 analysis that District wise Infrastructure / Facilities in marine villages in Andhra Pradesh 547 fishing villages covering electricity facility, 532 fishing villages to connect mobile connection, only 40 fishing villages having banks.

### FISHERY RELATED INFRASTRUCTURE AVAILABILITY IN ANDHRA PRADESH

The district wise fishery related Infrastructure facilities available in fisheries villages is given in Table -8.

**Table-8**  
**Infrastructure - fishery related**

	Boat yards	Ice factories	Cold storages	Freezing plants	Curing yards	Peeling seeds	Processing plants	Fish meal plants
Srikakulam	0	14	0	0	0	0	0	0
Vizianagaram	0	0	0	0	0	0	0	0
Visakhapatnam	10	15	8	8	5	10	5	0
East Godavari	12	13	6	0	0	6	0	0
West Godavari	0	19	7	5	0	0	5	0
Krishna	5	9	0	2	24	12	2	1
Guntur	4	10	1	1	1	10	0	0
Prakasam	1	2	0	0	0	0	0	0
Nellore	0	0	0	0	1	0	0	0
<b>Andhra Pradesh</b>	<b>32</b>	<b>85</b>	<b>22</b>	<b>16</b>	<b>31</b>	<b>38</b>	<b>12</b>	<b>4</b>

Source: Marine Fisheries Census 2010

### CONCLUSION

All the marine fishing states only Karnataka and Andhra Pradesh states are above 5.00 per cent growth rates from 2000-01 to 2013-14. West Bengal, Kerala and Puduchery states are negative growth rates are same period. During the last 25 years, the Indian seafood export increased from 75,591 tonnes in 1980-81 to 983756 tonnes in 2013-14 (Table 2.4). During the same period, the value of seafood trade also increased from Rs.234.84 crores to Rs.30213.26 crores. The unit value has increased from Rs.31.07 to Rs.307.12 per kg during the same period.

The marine fisher population is concentrated in the East coast of India (59 per cent) constituting West Bengal, Orissa, Andhra Pradesh and Tamil Nadu (17, 50,790). Among the maritime states, Goa ranks first in literacy of marine fisherfolk with 79.33 per cent which is found lower than State literacy rate of 82.01 per cent. In Andhra Pradesh rank is last all the marine states.

In India, marine fisheries sector employs around 2.9 million people of which 12.47 lakh people are in active fishing, 14.97 lakh in secondary sector avocations and 2 lakhs in tertiary sector. Occupational activities like marketing is dominated by females (MF ratio (male female ratio) of 4.5), labour in the secondary sector is done by men (MF ratio of 1.0). Curing/processing and peeling are undertaken by women role is very high (MF ratio of 7.4 and 8.6 respectively). All the marine states, Goa state 96.85 per cent highest members in fisheries co-operatives. The lowest fisheries co-operative members in Andhra Pradesh state only 31.43 percent.

In Andhra Pradesh, Srikakulam district has maximum fishing villages (128) and West Godavari with minimum (7). Average fisher households per village in the state is 1091 while the highest is in Visakhapatnam district (1804) and lowest is in Nellore district (684). Maximum fisher population was observed in East Godavari district (27.29 per cent) followed by Visakhapatnam (18.77 per cent) and Srikakulam

(16.26 per cent). Occupational activities like, marketing is dominated by females (MF ratio (male female ratio) of 8.2), labour in the secondary sector is done by men (MF ratio of 2.9). Curing /processing and peeling are undertaken by women role is very high (MF ratio of 12.5 and 8.4 respectively). women accounted for 74.59 per cent of the work force in marketing, curing/processing and peeling sectors.

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