



INTERNATIONAL JOURNAL OF CREATIVE RESEARCH THOUGHTS (IJCRT)

An International Open Access, Peer-reviewed, Refereed Journal

MARINE FISHERMEN IN ANDHRA PRADESH: AN ANALYSIS

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ABSTRACT

Fisheries are an important source of food, nutrition, employment, and income in India. The sector provides livelihoods to about 16 million fishers and fish farmers at the primary level and almost twice the number along the value chain. Fish being an affordable and rich source of animal protein is one of the healthiest options to mitigate hunger and malnutrition. The sector has immense potential to more than double the fishers and fish farmers' incomes, as envisioned by the government. 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 the fisheries sector is 6.01 % in A.P's. GSDP, whereas the fisheries contribution is about 0.83% of the GDP of the nation. In this paper attempts Opportunities and challenges of fisheries in Andhra Pradesh, state institute of fisheries technology, Kakinada, Central Institute of Fisheries Education, Visakhapatnam regional centre, socio-economics of fishermen in Andhra Pradesh, Institutional Finance, Production and Distribution and Marketing.

Keywords: Opportunities and challenges and socio-economics of fisheries in Andhra Pradesh, state institute of fisheries technology, Institutional Finance, Production and Distribution and Marketing.

INTRODUCTION

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 the fisheries sector is 6.01 % in A.P's. GSDP, whereas the fisheries contribution is about 0.83% of the GDP of the nation. The overall fish production has more than doubled in the past decade from 8.14 lakh tons in 2005-06 to 19.64 lakh tons in 2014-15. The share of Andhra Pradesh in India's seafood exports has increased from about 20% in 2009-10 to about 40% in 2013-14. During 11 2009-10, the exports from Andhra Pradesh were 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.

Nine out of thirteen districts of Andhra Pradesh are along the coastline and the total length of the coast is around 974 KM. The total continental shelf is more than 33,227 Sq.km. The total marine fishermen population in the state is around 6.05 lakh and sea-going fishermen are around 1.5 lakh. The total fishing crafts in the state are around 29,195 with around 12,747 motorized crafts, 1771 Mechanized, and 14677 traditional crafts. There are 4 fishing harbors 353 fish landing centers and 555 fishing villages.

OPPORTUNITIES AND CHALLENGES OF FISHERIES IN ANDHRA PRADESH Opportunities:

There are a number of natural as well as infrastructure-related aspects that have supported the exponential growth of the sector in the state in the past few years. These can be listed as follows

Market Potential:

The State has large marketing potential for fish products in urban areas within the state and in other states of India. In India, 60% of the population is non-vegetarian and hence there is a demand for fish consumption. At Present the national fish consumption is 11 Kgs and in AP it is estimated at 7.4 Kgs. The world fish consumption is 21.0 Kgs. Hence, there is a huge gap in consumption which can be filled up by A.P by promoting the domestic market.

Excellent fishing infrastructure

- The state has 4 fishing harbors – Visakhapatnam, Kakinada, Nizampatnam, and Krishnapatnam. 1 major port at Visakhapatnam and 14 non major ports offering vast opportunity for exporting fish products.
- There is scope for the establishment of new fishing harbors/ fish landing centers and 12 other post-harvest and market infrastructure to give value addition to the produce.
- Several modern retail and wholesale fish markets have been developed by the National Fisheries Development Board and State Fisheries Department.
- Availability of 56 Processing Plants with a capacity of 2272 MT/ day, 148 ice plants, 45 Freezing Plants with a capacity of 1 million tonnes/ year, and 28 Cold Storage Plants with a capacity of 25000 MT and operating with EU/ ISO 9000 / HACCP standards. Highly motivated fish/shrimp farmers, ample water availability, and favorable climatic condition

Challenges

Four different sets of challenges have been identified, which if addressed can quicken and improve the rate of growth in Fisheries in the state. These can be categorized as follows

Sustainability

- Excessive fishing capacity causing over-fishing leading to depletion of stock and recruitment in the marine sector.
- Barring the ban period, fishing activity is undertaken almost throughout the year through unsustainable fishery practices, thus disturbing the life cycles of the fish in freshwater bodies.
- Production of good quality seed is a major challenge.

Lack of access to modern technology and credit facilities:

- ✓ The majority of the boats are small fishing boats and such boats lack modern fishing facilities and equipment and information and communication equipment.
- ✓ The technology used at various levels of the value chain starting from boats to the cold chain is inadequate and obsolete
- ✓ The fishermen do not have access to institutional financing and new technologies.

Inadequate infrastructure and shortfall of skilled personnel

- ✚ Post-harvest processing infrastructure in the state is very limited.
- ✚ Cold storage and transportation services are also constrained.
- ✚ Inadequate infrastructure facilities, information, and communication channels.
- ✚ Shortage of technical manpower at middle and higher levels

STATE INSTITUTE OF FISHERIES TECHNOLOGY, KAKINADA

Fisheries Training center was established in the year 1958 with the Technical assistance of FAO & Financial assistance from (GOI) Government of India. Fisheries Training center was upgraded to Fisheries Training Institute in the month of March 1960 for strengthening the Training Programme. Under World Bank assistance AHRD Project, the FTI Kakinada was further upgraded as State Institute of Fisheries Technology, Kakinada in the year 1995.

The mandate of the Institute:

1. To impart training in the latest trends & Technologies in the field of Fisheries & Aquaculture to Traditional Fisherfolk/Aqua farmers to improve marine production as well as cultured fish / Shrimp production.
2. To upgrade the technical expertise of In-service personnel.
3. To render technical advice & expertise to all the concerned in the field of Fisheries.
4. To help aqua farmers achieve sustainable production.
5. To encourage need-based research and development in Fisheries Sector.
6. To render services to the Aqua farmers through disease diagnostic Labs.
7. To motivate Academic students in current trends of Fisheries & Aquaculture practices.

Faculty:

- Principal in the cadre of Addl. Director of Fisheries as head of the Institute.
- Six Assistant Directors of Fisheries and Six Fisheries Development Officers will assist the Principal in maintaining Laboratories & conducting training programs.
- The executive is supported by Administrative staff comprising one superintendent / Two Sr. Assets, three Jr.Assets, and two Typists.

Training Programmes:

- One Year “Tindal -Cum -Driver” Course for fishermen boys.
- 6 months induction course to Departmental officers recruited/ Promoted in the department.
- Refresher Training Courses at S.I.F.T, Kakinada for departmental officers in various aspects of fisheries.
- Awareness Programs in Fishermen Villages for fisherfolk and aqua farmers.
- Special training to fisherwomen in postharvest technology & value addition.
- "Community-based cyclone disaster preparedness" – special training program designed for coastal district officials and N.G.Os.
- Academic Training Programs to B.Sc. Fisheries and B.F.Sc. M.F.Sc students and exposure visits, training to College and University students.
- Income-generating Training programs like installation & maintenance of repair of IBM/OBM engines, Repairs & Maintenance of FRP Navas/Teppas Repairs& preparation of Nets and Reservoir Fishing Techniques to tribal Fishermen.
- Training program on Hygienic maintenance of Fishing Harbors & Landing centers to the stakeholders.
- Training program on Dynamics & Bookkeeping for MMGs.
- Training program on Ornamental fish breeding and Aquarium fabrication focusing on women groups.
- Special training program to educated unemployed youth in Aqua labs operation & Management.
- The project works to graduate & post-graduate students of various Colleges & Universities.

Awareness program in Fishermen Villages:

- Awareness program on the importance of sanitation, Child care, Education, Health & AIDS, Usage of TED, and Conservation of Marine Fisheries in collaboration with NET FISH (MPEDA) – Visakhapatnam.

CENTRAL INSTITUTE OF FISHERIES EDUCATION

ICAR-Central Institute of Fisheries Education (CIFE) is a leading Fisheries University having a distinguished heritage and has nurtured many illustrious scholars and leaders over the years. In over 50 years of existence, CIFE has emerged as a center of excellence for higher education in fisheries and allied disciplines. The Institute was established on 6th June 1961, under the Ministry of Agriculture, Govt. of India with assistance from FAO/UNDP. It came under the administrative control of the Indian Council of

Agricultural Research (ICAR) on 16th April 1979 and subsequently, the scope and mandate have been widened to include education, research, and extension.

Recognizing the pivotal role played by CIFE in human resources development in fisheries, the institute was conferred the status of Deemed-to-be-University on 29th March 1989. Encouraged by the new status, the University grew by leaps and bounds. Building Professional capabilities and competencies of more than 4000 State fisheries extension and development personnel since 1961, the emphasis has always been on quality education. Now CIFE is a knowledge powerhouse and a brand name in fisheries higher education.

From a modest beginning in 1961, CIFE is now located in a new campus with state-of-the-art facilities and is looking forward to the future with great optimism and excitement. As a leading university, CIFE seeks to innovate and adopt best practices in educational and research programs that prepare students to be leaders in the respective domains. CIFE has created an ecosystem of teaching and research excellence making it a preferred destination for students. The breadth of disciplines and collaboration among constituent institutions give the unparalleled opportunity to students to cross departmental boundaries and explore different horizons.

Administration

The Institute is a constituent unit of the Indian Council of Agricultural Research, which is a Society registered under the Societies Registration Act (Act XXI of 1860). ICAR is under the Department of Agricultural Research and Education (DARE) under the Ministry of Agriculture and Farmers Welfare, Govt. of India. The Director is the Principal Executive Officer of the Institute. The Director is also the Vice-Chancellor as CIFE is a Deemed to be University under Sec 3 of UGC Act 1956. The Board of Management (BoM), chaired by the Director/Vice-Chancellor, is the highest policy and decision-making body at the Institute level. The decisions and recommendations about academic, research, and extension activities of the Institute are made by Academic Council, Research Advisory Committee, and Extension Council, respectively. The Dean (Academics) is responsible for the overall supervision of the programs of post-graduate education and training at the Institute.

The Institute has four main bodies which are responsible for broad policy matters and decision making in regard to overall management, research, post-graduate education, and training and extension education. They are:

- Board of Management
- Planning and Monitoring Board
- Research Advisory Committee
- Academic Council
- Extension Council
- Institute Research Council

The highest policy-making body of the Institute is the Board of Management. The Research Council is responsible for monitoring the research project proposals, their progress, and practical application. All the matters relating to post-graduate education and training are decided by the Academic Council which is supported by five Standing Committees and the Board of Studies in various disciplines. The Extension Council is responsible to formulate the extension education and transfer of technology programs, and monitoring the same.

Powers and Functions of the Institute Research Council

- To review current research programs and monitor the progress
- To suggest changes in the programs as it may deem desirable and appropriate
- To review the position with regard to the provisions and use of research facilities
- To promote inter-disciplinary research with outside agencies and institutions
- To bring about balanced horizontal and vertical coordination of research activities
- To recommend steps on action desirable for all-around progress of research and their application.

VISAKHAPATNAM REGIONAL CENTRE

Thrust Areas of Research:

Marine Fisheries Policy for Andhra Pradesh Impact of climate change on marine fisheries for the north-east coast Spatio-temporal mapping of resource distribution and abundance along the north-east coast Induced spawning and seed production of commercially important marine fin fishes Innovations in cage culture and capture-based aquaculture of commercially important fin fishes and shellfishes.

SOCIO-ECONOMICS OF FISHERMEN IN ANDHRA PRADESH

According to the 14th quinquennial livestock census 2011, there are nearly 1,58,868 active fishermen in a total fisherfolk population of 6,05,428. Among them, adult males and females or nearly 63.10 percent each and children 36.9 percent, in the total population, East Godavari accounts for 27.29 percent followed by Visakhapatnam (18.77 percent), Srikakulam (16.26 percent), Nellore (10.62 percent), Prakasam (8.51 percent), Krishna (7.10 percent) Population is concentrated in East Godavari, Visakhapatnam, and Srikakulam districts. As per the survey conducted by the Department of fisheries during 2010, the active fishermen are), 1,50,868 in a total fishermen population of 6,05,428. Among them, adult's males form 31.57 Percent, (1,91,136) Females 31.53 percent, (1,90,888) and children 36.9 percent (2,06,741). In the total population (6,05,428) East Godavari accounts per 27 percent (2,23,404), followed by Visakhapatnam 18 percent (1,13,632), Srikakulam 16 percent (98,450), Krishna 7 percent, (43,005) Prakasam 8 percent (51,511) and Nellore 10 percent (64,289), West Godavari 1.5 percent (9188), Guntur 5 Percent (39,333) and Vijayanagaram 3.43 percent (20,812). The composition and distribution of the fisherfolk population are shown in Table 1.

The size of households varies considerably within the fishing villages. The joint extended family pattern of the traditional Indian agricultural community no longer exists among the Andhra Pradesh fisher folk. The prevailing family pattern is the nuclear family i.e., husband, wife, and children. The average number of members in a household is on average 3.71 and there are about 293 families per village. However, in East Godavari, Visakhapatnam, Guntur, Srikakulam, Vijayanagara, West Godavari, Krishna, Prakasam, and Nellore each having 458, 456, 327, 199, 257, 350,304, 225, and 181 families respectively. The lowest number of families per village (181) is in Nellore District.

Table 1
Fisher Folk Population in Andhra Pradesh

Item	District									Total
	Srikakul am	Vijayanagara m	Visakhapatna m	East Godavar i	West Godavar i	Krishn a	Guntu r	Prakasa m	Nellor e	
No. of fishing villages	128	20	63	97	7	43	36	67	94	555
No. of mandals	11	2	9	13	2	4	3	9	12	65
No. of landing centers	55	12	66	29	7	37	8	39	100	353
No. of fishermen households	25579	5138	28779	44476	2451	13073	11771	15103	17057	163039
Fishermen Population										
Male	31508	6121	37497	51357	2694	14952	12789	16159	18029	191136
Female	31661	6149	36161	51900	2854	14897	12634	16295	18337	190888
Children	35281	8542	39974	61951	3640	13456	13910	19027	27923	223404
TOTAL	98450	20812	113632	165208	9188	43005	39333	51511	64289	605428
Educational status										
Lower Primary Schools	12840	3036	19157	32930	1133	8591	4148	7914	10247	99997
Upper Primary Schools	15798	929	14827	18985	1304	5871	4234	4758	2881	69587
Above higher secondary	4164	276	2399	4650	298	1764	2033	1671	516	17474
TOTAL	32802	4241	36383	56565	2735	16226	10415	14343	13644	187058
No. of Fishermen engaged in actual fishing										
Full time	19184	5325	24709	40664	2349	7340	7233	11217	11424	129445
Part-time	4375	82	1642	4473	130	5592	3072	1917	140	21423
TOTAL	23559	5407	26351	45137	2479	12932	10305	13134	11564	150868
No. of Fishermen engaged in different fishing activities										
Marketing of fish	8697	1897	9357	8457	1405	4026	1483	1442	2560	39324
Repairing of nets	3421	934	582	535	11	360	499	363	7377	14082
Processing of fish	3596	317	2524	2614	232	2059	1229	2751	1526	16848
Others	14930	2995	11964	11895	189	3657	10268	5319	8618	69835
TOTAL	30644	6143	24427	23501	1837	10102	13479	9875	20081	140089

Source: - 1. Government of Andhra Pradesh, Department of Fisheries, Hand Book on Fisheries Statistics of Andhra Pradesh, 2018-19.

2. Marine fisheries census 2010.

The marine fishermen of Andhra Pradesh are of Andhra (coastal people) origin. They are almost at the bottom of the social ladder. They belong to the five fishermen castes. They are Vadabaliya, Jabari, Sambhunireddy, Pattapu, and Agnikula Kshatriya (Palli). These castes are considered to be backward classes by the Government of Andhra Pradesh. Even today, fishing is considered in society as a low-status occupation.

Of certain importance in village social affairs are associations called "Sanghams" (The very word in the Telugu language for co-operative), which are both religious groups as well as mutual help organizations. They deal with social and religious affairs in fishing villages. Worshippers of a particular god meet regularly for worship and help one another in times of emergency or need such as death, sickness, or marriage.

In the fishing villages there are usually two different, but functionally complementary socio-political systems. The formal system of administration consists of the Panchayat with an elected president (Sarpanch) and the elected members of the village council (Grama Panchayat). Their activities center on problems of physical infrastructure and the relations between the villages in the wider political and administrative setup of the Mandal Praia Parishad and Zilla Parishad. The village caste headman with a group of elders constitutes the informal system. It generally concerns itself with solving problems connected with caste, family, marriage, divorce, and other intra village affairs. The positions in the informal systems are exclusively inherited. The informal system complements the formal system of administration. Both systems are to a certain extent identical concerning their members and representatives. Many officeholders in the formal setup are members of the informal system.

The majority of the fishermen are very poor in Andhra Pradesh. Out of the total active fishermen engaged in fishing nearly 85.8 percent fall under the full-time category followed by part-time, 14.2 percent. The percentage of fishermen engaged in full-time fishing varies from 56 to 98(81% Srikakulam, 98% Vijayanagaram, 93 % Visakhapatnam 90% east Godavari 94% west Godavari 56% Krishna 70% Guntur 85% Prakasam and 98% Nellore) in the various districts of the state (Table 2.7). Fisherwomen also play a significant role in the economic as well as the social and domestic life of fisherfolk. They take an active part in buying and marketing fish, net making, and collection of firewood besides attending to domestic work.²² Earnings of fishermen mainly depend upon the type of craft and gear used and ownership status. Additional sources of income to fishermen vary considerably along the Andhra Pradesh coast. While in the South and North, fishing is mostly the sole source of income. Fishermen in the central districts (Guntur, Krishna, and Godavari, districts) earn additional income from agriculture (Paddy, Tobacco Coconut, and Ragi) and salt production.

Most of the daily income (nearly 85 percent) is spent on food items the rest on alcohol, tobacco, etc, and Surplus money is frequently used to purchase and stockpile storable foodstuffs like rice and millets, to pay off debts, or it is invested in precious metals. The daily diet of the fishermen consists of coarse rice, millet, and fish. They suffer from vitamin deficiencies; malnutrition is common among children.

The standard of housing is generally very low. The housing situation is aggravated by the frequent occurrence of fire and cyclones. Medical services in fishing villages are lacking or of very poor quality and coverage. Feeder roads, transport facilities to nearly market towns, drinking water supply, health services, etc., are some of the immediate needs of fishermen in the state of Andhra Pradesh.

The majority of the fishermen are still illiterate in the state. Facilities for primary education are available in many of the fishing villages. However, enrolment is very low. Invariably the children do not go to school as families make the children earn from an early age. By and large, the fishermen in Andhra

Pradesh are perennially indebted to the middlemen, who advance financial help to them at times of need in return for their fish catch assessed at low prices. The middlemen also control the sale and marketing of fish.

Several factors such as low status, poor economic conditions, illiteracy, heavy leaning on middlemen, traditional fishing pieces of equipment and methods of fishing, poor housing, malnutrition, lack of proper water supply, non-availability of medical services, and low production rate are influencing the socio-economic conditions of the marine fishermen.

INSTITUTIONAL FINANCE

A fishery is a capital-intensive activity. The fishermen because of their low economic status have to depend on external financial resources. Financial institutions have to play a greater role in meeting the working capital and investment needs of marine fishermen in Andhra Pradesh.

The formation of fishermen's co-operative societies in Andhra Pradesh dates back to the days before India's independence, but it was in the 1960s and 1970's that most of the existing co-operative societies in the fisheries sector were established. The activities of many co-operatives concentrate on obtaining loans under various schemes. The details of different fishermen's co-operative societies are exhibited in Table 2.

TABLE 2
Details of Different Marine Fishermen Co-Operative Societies Working in Andhra Pradesh during 2015-16

Sl. No	Districts	No. of Socs.	No. of Members	Share Capital
1.	Srikakulam	57	13,926	8,52,223
2.	Vijayanagaram	12	2,908	84,100
3	Visakhapatnam	70	10,996	12,09,560
4	East Godavari (K+R)	112	17,404	5,20,420
5	West Godavari	16	1,042	57,365
6	Krishna	42	8,501	2,71,988
7	Guntur	26	5,855	2,92,750
8	Prakasam	39	10,450	5,59,000
9	Nellore	50	10,239	1,07,854
	TOTAL	424	81,321	39,55,260

Source: Government of Andhra Pradesh, Hand Book on Fisheries statistics of Andhra Pradesh, 2015-16, P.11.

There are a large number of fishermen co-operative societies in East Godavari followed by Visakhapatnam, Srikakulam, Nellore, Krishna Prakasam, Guntur, and West Godavari, Vijayanagaram districts. The overall performance of fisheries cooperatives in the state has been poor and insufficient to make any significant impact on the living standards of marine. There are 424 primary fishermen cooperative societies in the state with 81,321 membership and Rs. 39,55,260 as share capital, 4 marketing societies working in the state with 2334 members and Rs. 17513 as share capital, and only one district fishermen cooperative marketing society in Andhra Pradesh with 2000 members and share capital Rs.5,888 during the year 2013-14. A significant percentage of the societies are operating at a loss and many of them are dormant. Their membership share capital base and turnover are also often too weak and inadequate for viable operations. But the financial performance of the fisheries cooperatives in the state is better than their performance in the country.

Commercial Banks have also entered the field of the fisheries sector. Their outstanding advances to the fisheries sector in the state at the end of March 2016 were Rs.8,97,800. It is 2 percent of the total advance of commercial banks to the fisheries sector in the country. As of the above date, the number of outstanding accounts was 2034. Nearly 20 percent of the total accounts are in Andhra Pradesh. It shows that the average loan given per account in Andhra Pradesh is very much lower compared to the average loan given per account in the country. It seems the commercial banks are actively financing the fisheries sector in the state of Kerala especially for mechanized boats they can also show the same interest in the state of Andhra Pradesh.

The National Bank for Agriculture and Rural Development is providing refinance facilities to the financial institutions giving loans to the fisheries sector. Reserve Bank of India and Shipping Corporation of India are also arranging subsidies to support lending institutions for fisheries projects. The term-lending institutions have been lending money for various fishing and fish processing operations. Some of the studies show that the bulk of the credit to finance fishing operations of small-scale fishermen is still provided by the non-institutional agencies in Andhra Pradesh.

A study on the credit structure in an Andhra Pradesh village shows that about 11 percent of the debt outstanding of marine fishermen as of 31.3,2014 was provided by the institutional agencies and the rest (89 percent) by the non-institutional agencies like agricultural money lenders, fish merchants, traders, friends, and relatives. A similar study in Kerala fishing village reveals that nearly 93 percent of the credit to fishermen was provided by the informal sector. The share of financial institutions was only 7.4 percent of the amount borrowed during the surveyed year, 2015-16, ways and means, therefore, need to be found to make institutional finance available for the small scale fishermen to improve their socio-economic conditions and also to raise the nutritional levels of protein deficiency in the Indian diet, and to earn much needed foreign exchange.

After Tsunami institutional finance position has changed fishermen were affected with huge losses because of Tsunami. At present financial institutions are not coming forward to issue loans to marine fishermen due to low security and non-repayment of old debts. In the present situation, the fishermen are

forcedly to take loans from the non-institutional sector, where the product market is linked with the credit market.

PRODUCTION

Andhra Pradesh ranks sixth among the ten Maritime states of India and second among the Five East Coast States in marine fish production. The marine fish landings in the state are presented in Table 3.

Table 3
Marine Fish Production in Andhra Pradesh

Year	Quantity in thousand tones	Value ` In lakhs
2004-05	1,815.81	2,478.86
2005-06	1,920.67	2,622.01
2006-07	2,071.12	2,827.39
2007-08	2,188.15	2,987.16
2008-09	2,449.24	3,343.58
2009-10	2,465.44	3,365.70
2010-11	2,518.26	3,437.81
2011-12	3,264.72	4,456.84
2012-13	3,515.85	4,799.67
2013-14	3,733.38	5,096.63
2014-15	4,062.49	5,545.92
2015-16	4082.36	5863.25
2016-17	5002.25	6325.62
2017-18	5052.65	6852.72
2018-19	5088.48	7325.46

Source: Department of fisheries, Government of Andhra Pradesh, online

In Andhra Pradesh in the year 2004-05, the marine fish production is 1,815.81 tones and it is 2,478.86 lakhs worth. The production is increased up to 2018-19 in the 5088.48 tones worth of 7325.46 lakhs. The growth rate between the years 2004-05 and 2018-19, both in production (280.23) and value (295.51) shows a similar growth rate both in quantity and value.

An analysis made with the data from the years 2005-06 to 2018-19 showed that the share of non-mechanized craft in the total marine landings had steadily decreased between 2005-06 and 2018-19 from around 59.42 percent to about 56.19 percent. But mechanized craft is increased from 40.58 percent to about 43.81 percent. The trend is as shown in Table 4.

Table 4

Contribution of Non-Mechanised and Mechanised Craft to Fish Landings in Andhra Pradesh

District	Non-Motorized	Motorized	total
Srikakulam	4880	691	5571
Vizayanagarm	758	522	1280
Visakhapatnam	4960	3059	7440
East Godavari	2222	2509	4731
West Godavari	75	14	89
Krishna	1516	1130	2646
Guntur	52	503	555
Prakasam	1367	1483	2763
Nellore	2007	3993	6000
Total for the year 2015-16	17,837 (56.19)	13,904 (43.81)	31,741 (100.00)
Total for the year 2005-06	24,386 (59.42)	16,653 (40.58)	41,039 (100.00)

Source: 1. Government of Andhra Pradesh, Commissionerate of Fisheries, Fisheries Statistics of Andhra Pradesh, 2015-16, P-7.
2. Marine Fisheries Census, 2010, P-19.

When compared to the vast marine fishery resource potential especially with the extension of the exclusive economic zone up to 200 miles, the production in Andhra Pradesh is low. There is the possibility to raise substantially the level of production. The low level of production is mainly due to the non-suitability of fishing craft for intensive and extensive exploitation of off-shore and deep-sea areas. It seems there is a gap in the number of mechanized boats required to exploit fully. The development of marine fisheries in the state mainly depends, to a large extent, on the introduction of mechanized fishing crafts. There is an urgent need to introduce more mechanized fishing boats and vessels to exploit fishery resources in the state without affecting the interests of small-scale fishermen.

DISTRIBUTION AND MARKETING

It is estimated that about 40 percent of the marine catch is consumed fresh and the bulk of the balance dried or salted. About 60 percent of the people in Andhra Pradesh are fish eaters. At present, the national fish consumption is 11 kgs and in AP, it is estimated at 7.4 kgs. The world fish consumption is 21.0 kgs. Hence, there is a huge gap in consumption which can be filled up by A.P by promoting the domestic market.

The existing marketing system involves both public and private sectors. Andhra Pradesh Fisheries Corporation (A.P.F.C) represents the public sector in the marketing system. It has marketing units in coastal districts with fish and prawn procurement centers along the coast to procure fish and prawns directly from small-scale fishermen. The aim is to offer the fishermen a reasonable price for their catch so that they are not exploited by middlemen. The private sector has a major share of fish marketing. A large number of private traders, small and big, handle the marketing in a complex labor-intensive operation. There is generally a large gap between the price paid by the consumers and the price paid to the fishermen.

Dried fish is distributed to both coastal and internal district markets. A quantity of 58730 tonnes of fish valued at Rs.72166.50 lakhs and 10045 tonnes of prawn valued at Rs.21094.50 lakhs was exported from Nellore district to other neighbouring states, and 33046.17 tonnes of marine products have been exported to various foreign countries, valued at Rs.29273.20 lakhs during the year 2015-16.

The state's fish exports in 2013-14 amounted to nearly 5.98 percent and 60.23 percent respectively of the total quantity and value of marine products exported from India. Table 2.5 presents the value and quantity of fish exported from Andhra Pradesh.

Table 2.5
Value and Quantity of Fish Exports 2005-06 to 2015-16

Year	Quantity in tonnes	Percentage of total exports from India	Value Rs.in crore	Percentage of total exports from India
2005-06	5,12,164	11.02	7,245.73	9.05
2006-07	6,12,643	19.62	8,363.52	15.43
2007-08	5,41,701	11.58	7,620.93	-8.88
2008-09	6,02,834	11.29	8,607.95	12.95
2009-10	6,78,436	12.54	10,048.53	16.74
2010-11	8,13,091	19.84	12,901.46	28.39
2011-12	8,62,021	6.02	16,597.23	28.65
2012-13	9,28,215	7.68	18,856.26	13.61
2013-14	9,83,756	5.98	30,213.26	60.23
2014-15	10,51,243	5.24	33,441.61	10.69
2015-16	9,45,892	4.96	30,420.83	-9.03
2016-17	9,55,432	6.22	32,320.55	10.20
2017-18	10,82,321	7.12	33,252.46	11.35
2018-19	11,85,621	8.35	34,821.64	12.52
CAGR	0.60	-	0.55	-

Source: Marine products exports development Agency (MPEDA)

In the year 2018-19, the exports are increased by 8.35 percent in quantity and 12.52 percent in value. But in the year 2018-19 exports are decreased to 4.96 percent in quantity and -9.03 percent in value. There is a non-uniform trend both in quantity and value of fish exports from the state. Frozen shrimp constitute the bulk of the products exported. The entire export is handled through Chennai and Visakhapatnam ports.

CONCLUSION

I conclude that the Fisheries are an important source of food, nutrition, employment, and income in India. When compared to the vast marine fishery resource potential especially with the extension of the exclusive economic zone up to 200 miles, the production in Andhra Pradesh is low. There is the possibility to raise substantially the level of production. The low level of production is mainly due to the non-suitability of fishing craft for intensive and extensive exploitation of off-shore and deep-sea areas. It seems there is a gap in the number of mechanized boats required to exploit fully. The development of marine fisheries in the state mainly depends, to a large extent, on the introduction of mechanized fishing crafts.

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