

A Brief Overview of Telangana State's Fishery Resources Prospect and Facilities

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INTRODUCTION

Telangana accounts for 3.5% of India's total geographical area and 2.9% of the population and ranks 12th in geographical area and population among the Indian States. The State is newly formed 29th in India and blessed with prosperous inland Fishery Resources state organizing in India at 3rd Rank. Total water spread area (WSA) 5.87 Lakh Ha; first Karnataka with 7.3 Lakh Ha; second Tamil Nadu with 6.96 Lakh Ha; and Total production in the state 2.2 in Lakh tons ranking in India 8th rank. The inland fishery resources consist of 5,062 km of rivers, 511 km of canals, 80 all types of reservoirs with a water spread area of 1.89 lakh ha, 4,612 department tanks with 2.4 lakh ha, 24,210 gramapanchayat tanks with 1.38 lakh ha and ponds 474 no's with water spread area of 782 ha. The infrastructure includes 80 ice plants with a holding capacity of 750 metric tonnes and 8 cold storage with a holding capacity of 280 metric tonnes. The inland cooperatives of 3967 reportedly had a 3. lakh registered fisher population out of 20 lakh fishermen. The infrastructure development in Telangana state is far from satisfactory, though the major fisheries development board is located in the state (Table 1 – 5).

Regarding the consumer profile, the Telangana local market is not yet up to the standard of consumer preference; the coverage should be for all households, with the primary focus being on families consuming carp and the sale of Fresh Carp. It is suggested that the focus be on the local markets; however, other markets could be tried out over a period of time.

- ◆ A market yard can be established in a town where there are more than 5 MT of fish per week. The marketing yard is near the farm area and is based on the tank's area. If the tank is 20 acres, the yard area is 0.20 acres. The marketing place is near the town building construction as per NFDB guidelines.
- ◆ The tanks registered at fisheries departments are accountable for yield, so state department officials need to register all the tanks. If that data can be provided through kiosk/internet, i.e., aquachoupal/SMS to the concerned fisheries college team, it ensures productivity after analysis at all levels.
- ◆ In marketing these goods to achieve the desired qualification for exporters, he has to register at the district-level office based on his capacity in terms of property. He should have a minimum 10th standard qualification and be an active PCS member.

- ◆ Telangana comprises tank farming, so most of them are auctioned at the initial stage after stocking seed. Hence, in this connection, we need strong agreement from the fisheries community. They are responsible for their water, so auction players are only government.
- ◆ Tendering process, mainly through e-tendering, is the best process with less documentation.
- ◆ Exports of our state fishery goods need quality certification from the Fisheries College/Department fish quality assurance lab. However, data is filled through the state policies when the goods cross our state.
- ◆ Marketing of the goods needs one place exit point. It can be possible through the check post of the district/Mandals while this process weighs Bridge certification has to verify that data can feed through an internet kiosk.



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Sl. No.	Mag Description	Quantity	Rate
1	Water From Canal	10,000	10,000
2	Water From Well	10,000	10,000
3	Water From Tank	10,000	10,000
4	Water From Pond	1,000	1,000
5	Water From River	1,000	1,000

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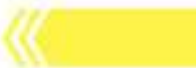


Table 1: Resources in Telangana

1	Reservoirs	No.	W.S.A. (in Ha.)	Nos. in Licensing system	
				Nos. in Licensing system	Nos. in Lease system
	i) Large	8	140074	8	0
	ii) Medium	17	28090	10	7
	iii) Small	55	21671	8	47
	Total	80	189835	26	54
	Fish seed required (Advanced Fingerlings in Lakh)	942.505			
2	Tanks	Departmental		Gram Panchayath	
		No.	W.S.A. (in Ha.)	Nos. in Licensing system	Nos. in Lease system
	Perennial	628	53148	176	1235
	Long Seasonal	2195	114188	967	7225
	Short Seasonal	1789	73228	23067	129685
	Total	4612	240564	24210	138145
3	Fish seed required (Advanced Fingerlings in Lakh)	2563.79		496.05	
		No.		Area in Ha.	
4	Aqua culture ponds	474		781.30	
5	Rivers and canal	5062 Km and		511 Km	
6	Fish seed farms	No.		Fish seed (fry) Production (in Lakhs)	
	Government	28		1101	
	Private	4		6300	
7	Fishermen Cooperative Societies	Nos		Membership	
	Fishermen Coop. Societies	3513		286844	
	Fisherwomen Coop. Societies	437		20420	
	Fishermen Marketing Coop. Societies	7		3307	
	District Fishermen Coop. Societies	10		2736	
	Total	3967		313307	
8	Fishermen Population	1904281			
9	Active fishermen	307234			
10	No. of Fish Markets (Sanctioned)	55			
11	No. of Community Halls (Sanctioned)	244			
	Fishermen Coop. Societies	3513		286844	
12	Fish & Prawn production target 2016-17	Fish (in tons)		Prawn (in tons)	
		345068		8495	

Table 2: Fish production target and achievements

Year	Fish production		Prawn production		Total (in tons)	
	Target	Achmt.	Target	Achmt.	Target	Achmt.
2011-12	193500	133587	4400	2206	197900	135793
2012-13	240000	214591	6320	5037	246320	219628
2013-14	260853	243037	6908	6596	267761	249633
2014-15	284400	260010	7330	8352	291730	268362
2015-16	312180	228185	7866	8567	320046	236752
2016-17 Upto Sept, 16	345068	66498	8495	1746	353563	68244

Table 3: Fish production target and achievements

S.No	Name of the District	Fish Seed rearing ponds		Culture Ponds		Total	
		No.of farmers	Area in Ha	No.of farmers	Area in Ha	No.of farmers	Area in Ha
1	Adilabad	2	0.00	3	5.00	5	5.00
2	Bhadrachali	9	9.45	29	40.55	38	50.00
3	Hanamkonda	4	11.00	1	3.00	5	14.00
4	Hyderabad	0	0.00	0	0.00	0	0.00
5	Jagtial	16	49.94	2	6.10	18	56.04
6	Jangaon	11	23.97	3	3.00	14	26.97
7	J. Bhupalpally	4	6.37	47	57.08	51	63.45
8	J.Gadwal	21	47.86	151	278.93	172	326.79
9	Kamareddy	2	3.28	15	14.76	17	18.04
10	Kaam nagar	14	41.76	18	29.76	32	71.52
11	Khammam	248	226.32	0	0.00	248	226.32
12	KB Asifabad	5	8.80	4	6.00	9	14.80
13	Mahabubabad	10	10.00	54	68.00	64	78.00
14	Mahabubnagar	3	5.00	13	13.20	16	18.20
15	Mancheriyal	14	27.49	11	70.40	25	97.89
16	Medak	0	0.00	0	0.00	0	0.00
17	Medchal	0	0.00	1	1.00	1	1.00
18	Mulugu	4	17.30	41	83.59	45	100.89
19	Nagarkurnool	3	1.80	10	31.30	13	33.10
20	Nalgonda	94	53.45	418	382.32	512	435.77
21	Narayanapet	0	0.00	112	133.96	112	133.96
22	Nimal	3	3.33	13	16.60	16	19.93
23	Nizamabad	23	119.05	18	34.59	41	153.64
24	Peddapalli	4	10.25	4	14.33	8	24.58
25	R Siricilla	14	26.93	5	0.00	19	26.93
26	Rangareddy	4	6.30	0	0.00	4	6.30
27	Sangareddy	0	0.00	9	13.57	9	13.57
28	Siddipet	0	0.00	5	6.34	5	6.34
29	Suryapet	59	107.46	47	56.01	106	163.47
30	Vikarabad	0	0.00	0	32.50	0	32.50
31	Wanaparthy	3	9.22	80	128.03	83	137.25
32	Warangal	7	41.52	2	2.00	9	43.52
33	Y.Bhongir	10	20.21	24	35.03	34	55.24
	TOTAL	591	888.06	1140	1566.95	1731	2455.01

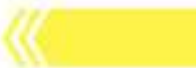


Table 4: Year Wise Fish Seed Production Report

S.No	District	Fish Seed Farm	2015-16		2016-17		2017-18		2018-19	
			Target	Achive	Target	Achive	Target	Achive	Target	Achive
1	2	3	4	5	6	7	8	9	10	11
2	Adilabad	Satnala	37	16	37.00	20.20	39.00	0.00	16.00	0.00
3	Karimnagar	LMD	78	65	78.00	7.00	118.00	26.00	40.00	17.33
4		Kesavapatnam	55	0	55.00	0.00	55.00	0.00	18.00	0.00
5	Rajanna Sircilla	UMD	42	0	42.00	13.00	43.00	0.00	16.00	0.00
6	Siddipet	Sanigaram	13	0	13.00	0.00	13.00	0.00	11.00	0.00
7	Warangal (U)	Hannakonda	14	3	14.00	6.00	16.00	0.00	10.00	0.00
8	Khammam	Wyra	62	52.5	62.00	43.00	65.00	18.00	18.00	3.68
9	Bhadra di Kothagudem	Kinneerani	41	30.5	41.00	39.00	47.00	5.60	16.00	0.00
10	Nizamabad	Pochampad	138	21	138.00	42.00	211.00	15.00	40.00	26.84
11		Arsapally	13	0	13.00	9.00	16.00	0.00	4.00	0.00
12	Kamareddy	Nizamsagar	25	0	25.00	0.00	24.50	0.00	4.00	0.00
13	Medak	Medak	90	8	90.00	11.00	90.00	22.00	34.00	1.13
14	Sangareddy	Singoor	20	0	20.00	0.00	65.00	0.00	0.00	0.00
15		Sangareddy	38	12	38.00	8.00	20.00	6.50	30.00	9.67
16	Mahabubnagar	Pillamarri	16	3.3	16.00	6.47	16.00	0.00	4.00	0.00
17		Jammichedu	18	5.9	18.00	11.80	21.00	0.00	0.00	0.00
18		Koilsagar	50	5.9	50.00	7.50	50.00	16.00	21.00	0.00
19	Nagarkurnool	Mucharlapally	12	0	12.00	0.00	12.00	0.00	13.00	0.00
20		Chandrasagar	26	6.1	26.00	8.40	26.00	6.00	16.00	0.00
21	Rangareddy	Medchal	13	4	13.00	0.00	16.00	0.00	0.00	0.00
22		Seniguda	11	6.5	11.00	3.00	16.00	0.00	10.00	0.00
23	Vikarabad	Nandivagu	40	18	40.00	6.00	39.00	0.00	13.00	0.00
24	Nalgonda	Dindi	21	0	21.00	0.00	21.00	0.00	13.00	0.00
25	Hyderabad	Rajendranger	36	18	36.00	9.20	38.00	10.00	0.00	0.00
		Total	909	217.2	909.00	250.57	1077.50	125.10	347.00	58.65

Table 5: Year Wise Fish Seed Production Report

S.No	District	Fish Seed Farm	2015-16		2016-17		2017-18		2018-19	
			Target	Achive	Target	Achive	Target	Achive	Target	Achive
1	2	3	4	5	6	7	8	9	10	11
Leased out Farms										
1	Karimnagar	FFDA	21	2	21.00	10.00	0.00	2.00	16.00	2.94
2	Warangal (U)	Bheemaram	34	17.8	34.00	21.50	0.00	100.00	70.00	40.00
3	Nalgonda	Thummadam	29	6	29.00	8.00	0.00	0.00	110.00	70.00
4	Nirmal	Kadam	108	34	108.00	36.00	0.00	50.00	95.00	80.00
5	Wanapathy	Saralaagar	0	0	0.00	0.00	0.00	2.00	22.00	10.00
		Total	192	59.8	192.00	75.50	0.00	154.00	313.00	202.94

INLAND FISHERIES AND LIVELIHOODS IN INDIA

Inland fisheries in India comprise the production of fish from inland water bodies like streams, rivers, ponds, reservoirs, and lakes and also related activities like processing and marketing. It provides livelihood options to a large proportion of poor families in India. Traditionally, most of these families (belonging to the fisherman's caste) were associated with catching fish from these water bodies and selling it in local markets. Besides streams, rivers, and reservoirs, most of these water bodies are common property resources under the control of the Government.

Over the years, there has been a rise in demand for freshwater fish. This has led to a thrust on enhancing production through scientific cultivation practices. Increasingly, fish cultivation in such water bodies was viewed as a profitable, enterprising activity. Local elites started encroaching and taking control of these common property resources, mainly the ponds and tanks. Nevertheless, inland fishery has the potential to enhance the livelihood of a large proportion of poor families in India.

FRESHWATER FISH MARKET

The annual per capita availability of fish in the World is 19.1 kg. In the context of India, it is 3.2 kg. The yearly per capita consumption of fish is increasing every year. This is mainly due to the increase in the purchasing power of consumers and their preference for fish being a low-cost animal protein. Overall, there is a steady domestic demand for freshwater fish, i.e., mainly Carp and Murrel. Consumers generally prefer fresh fish. There is minimal processing of freshwater fish. The inland fish market is relatively informal in the country. Marketing channels are generally short. Producers' share in retail price is estimated to be more than fifty percent. The following Fig. 1 details the overall surplus and deficit scenario of fish across:

Surplus	Deficit
AP and Telangana	Delhi
Haryana	West Bengal / Kolkata
Rajasthan	Orissa
Punjab	Jharkhand
West Bengal	Bihar
UP	Chhattisgarh
MP	UP
Chhattisgarh	MP

Fig. 1. Domestic fresh Water Fish Market

MARKET CHANNELS

Marketing channels relate to the demand and supply scenario across markets, and the consumer preference. The key marketing channel in the region includes harvesting of fish from water bodies and bulk sale in different markets, which depends on quantity of fish harvested. In case of higher quantity of harvest, fish is transported to wholesale markets. Irrespective of control of water bodies (Coop or Contractor) there is general preference to carry fish to distant wholesale markets. However, there are variants of this market channel, which has been explained in the earlier

section of the report. At an all India level, fish from Andhra plays an important role in meeting the overall deficit in the country. AP supplies fish to metro markets like Kolkata and Delhi; and deficit States like West Bengal, Orissa, Jharkhand, Bihar, UP, Chhattisgarh and MP. Fish supply from Punjab, Haryana and Rajasthan can be seen as a local supply that meets the requirement in Delhi market. At all India level, States like MP, UP and Chhattisgarh presents a scenario of both surplus and deficit of fish. In recent years, in these States there is an increasing consumer preference to eat fish. This is due to rise in non vegetarian population, increase in purchasing power and fish (being low cost) as substitute to meat. The gap in fish supply is currently met by supply by AP and Telangana. Unlike other markets like Delhi where there is assured demand for AP and Telangana fish, the demand for fish in UP, MP and Chhattisgarh fluctuates. In case, there is low quantity of fish harvested, it is taken to local market. Interaction with market players in the project area and in distant markets revealed the key channels of marketing of fish. Local fish supply includes fish harvested from small & medium water bodies; and from large water bodies like reservoir. Fish catch coming from rivers and stream is very small proportion of supply. Fish from small & medium size local water bodies is generally sold in local towns, Jhansi and Gorakhpur market. Fish from large water bodies usually, harvested in large quantities gets sold in key markets like Jhansi, Gorakhpur and Lucknow. These water bodies are generally controlled by contractors, who are at times financed (for leasing cost, seed stocking) by big wholesale traders (Fig. 2).

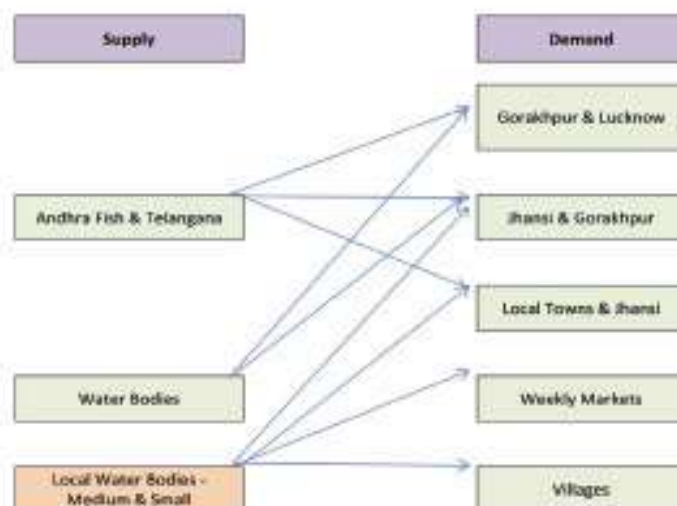


Fig. 2. Movement of Fish from Telangana to projected area at different Markets

CURRENT MARKETING PRACTICES BY COOPERATIVES

In most of the Cooperatives, initially, the key members try to collect information on prevailing price from different markets. The Managing Committee decides on floor price for sale of fish and the date of harvesting. The floor price is applicable to traders and retailers who would like buy fish from pond site. The actual price of sale varies, which depends on



amount of fish harvested and participation of retailers and traders. The information gets disseminated informally. Fish is harvested on wage basis with use of boats and nets. In a year, most of the fish gets harvested in 2 to 4 lots. Fish is generally graded into two groups i.e. Carps and trash fishes. The following Fig. 3 details the mode of sale (in order of preference) of carps and related market channel:

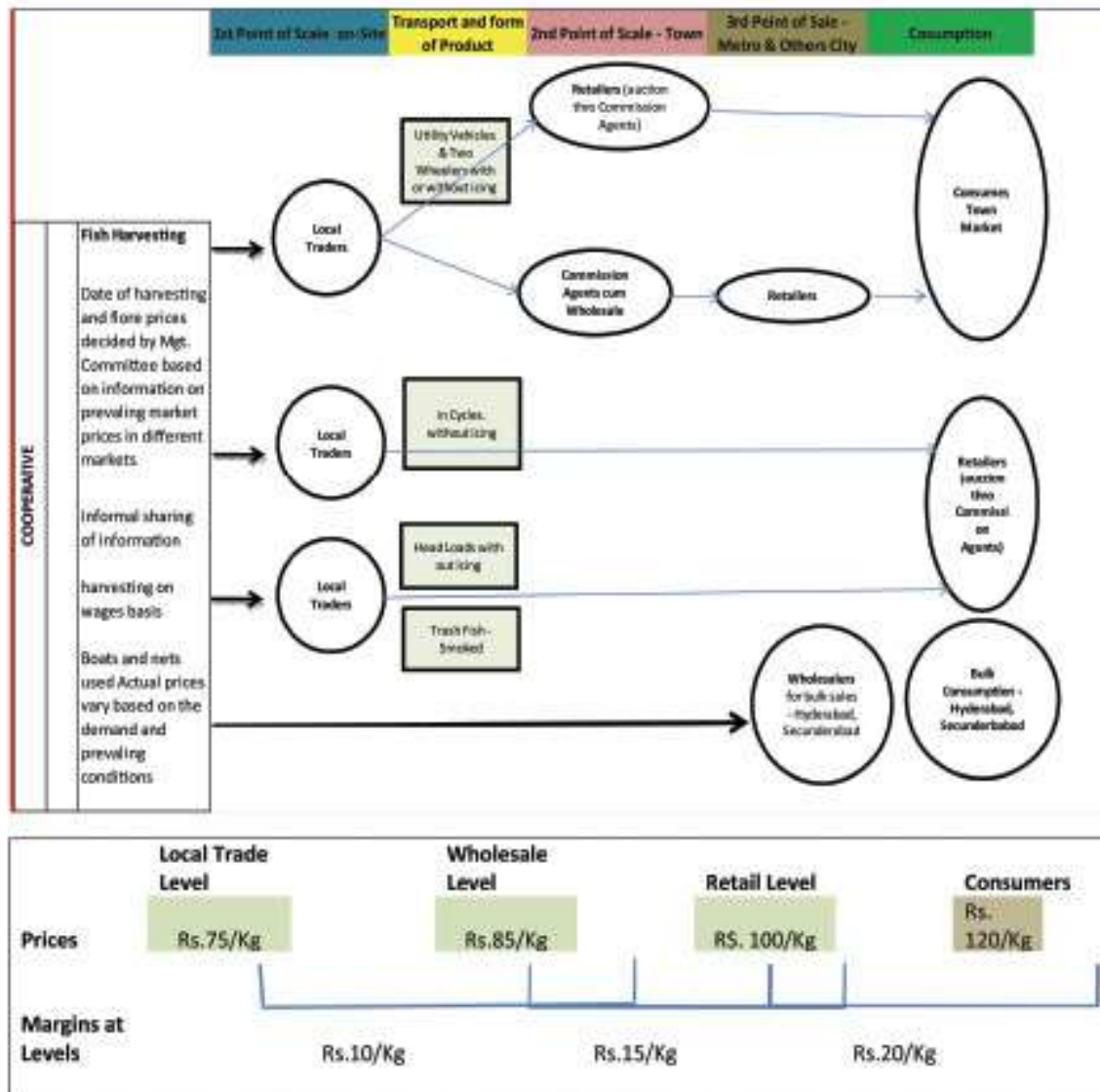


Fig. 3. Current practice by Cooperatives - Marketing of Fish - Markets, Channels, Players and Practices

- Key members carry fish in bulk to the market in local towns and cities, where it is auctioned (facilitated by commission agent) or sold to commission agent cum wholesalers. Local retailers either participate in auction or buy fish from wholesalers.
- Traders buy fish at pond site and sale through auction in key local markets. Fish from these local markets further goes for local retail sale.
- Key members carry fish in bulk to distant market like Hyderabad and Secunderabad where it is auctioned or sold to wholesalers. Further the fish goes for retail sale in the area.
- Local retailers (mainly male) buy fish at pond site and sale in weekly markets, regular retail markets in towns and vending (in cycle) in both urban and rural areas. A large proportion of retailers belong to fishermen community.

The trash fishes are sold to women vendors. The trash fishes are burnt/ smoked on floor (near the water body) to enhance the shelf life. The women vendors' sale the smoke fishes in regular retail markets in towns or in weekly markets in rural areas. Most of the women vendors belong to fishermen caste. Besides this, certain quantity of fish goes for consumption at family level. There is incidence of poaching and poisoning of fish. At times, the local elites ask for fish as gift or at a subsidized price.