



MANAGEMENT OF FISHERIES IN SHAHUWADI TEHSIL

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Introduction

The fisheries sector contributes to the socio-economic developments of the Maharashtra. The fisheries sector is one of the major sources of livelihood for the economically backward population. Maharashtra is an important maritime state in the west coast with a coastline of 720 km and potential coastal aquaculture area extending to 10,000 hectares. The state also has 16,000 km of rivers and canals, 2.73 lakh hacters of reservoirs, and 53,000 hacters of ponds and tanks. The annual fish production in state is 5.45 lakh tonnes, and has potentials to enhance this through Mariculture, coastal Aquaculture, fresh water aquaculture and reservoir varieties of fish produced in this state. In order to know the real position of fish production in Shahuwadi tehsil, varieties of fish obtained in this region and constraints relating to them, the researcher has selected this topic for the study.

The Region

The region selected for present study is Shahuwadi tehsil in Kolhapur district of Maharashtra. The topography, drainage pattern, climatic conditions, ecological and infrastructural factors have given good environment for fishing in the region. The present research paper deals with the potential, problems and marketing of fisheries in Shahuwadi tehsil. The total geographical area of Shahuwadi tehsil is 104352 ha. The total population of the tehsil is 185661, out of them 91869 is male population and 93792 is female population. The population density of the tehsil is 181, whereas the sex ratio is 1021. Kadavi, Shali, Warana and Kasari are four important rivers in Shahuwadi tehsil. Two medium irrigation project (Gelawade and Kadavi dam), seven small irrigation projects and in addition to that one Kolhapur Type Wear and 1981 wells are available in the tehsil. The total number of watersheds is 710 in Kolhapur district, out of them, 89 water shed areas are in Shahuwadi tehsil. From such type of water resource availability total 6883 hectare (32.10 %) is an irrigated area. There are four fisheries' cooperative societies in the tehsil and its total members are 281 in the year 2013. Fishery is a significant occupation in the tehsil in addition to the agriculture and industry. There is large quantity of fishery and selling of fish is occurred in Malkapur town of the tehsil.

Objectives

The present research work is dealing with the management of fisheries in Shahuwadi tehsil. However, the objectives are as given below.

1. To analyze the situation of fish production and its marketing in Shahuwadi tehsil.
2. To analyze the problems before fisheries and suggest remedy for the development of fishery in the study region.

Research Methodology and Data Collection

The present research work is based on primary data. The secondary data is obtained from various books, articles, thesis, Government reports, unpublished documents and websites, etc. The collected data is processed, tabulated, and analyzed with the help of various statistical techniques.

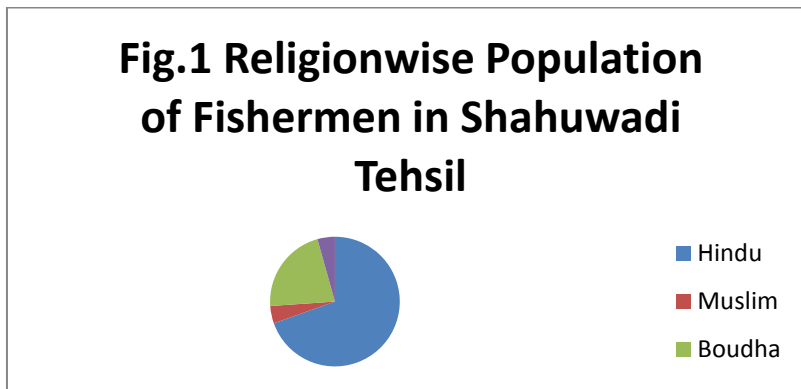
There are 145 villages in Shahuwadi tehsil, from which 15 villages (10.34%) are selected for the study. The structured questionnaire has been filled up from the fishermen in these villages. There are 460 fishery co-operative members, from which the structured questionnaire has been filed up from 46 (10.00 %) respondents. The present research paper deals with the analysis of these questionnaires filled from fishermen. The respondents selected for the study were male category. However, the work of selling fish has been done by their mother or wife. The number of such respondents is 12.

Management of fisheries in Shahuwadi tehsil : Religionwise Population

Table 1 Religionwise Population of Fishermen in Shahuwadi Tehsil			
Sr. No.	Religion	Frequency	Percentage
1.	Hindu	32	69.56
2.	Muslim	02	04.35
3.	Boudha	10	21.74
4.	Christen	02	04.35
Total		46	100.00

Source: Based on field work.

Fig.1 Religionwise Population of Fishermen in Shahuwadi Tehsil



The above table elaborates the religionwise population of fishermen, which is found in Shahuwadi tehsil. It indicates that out of total fishermen selected for the study, the largest

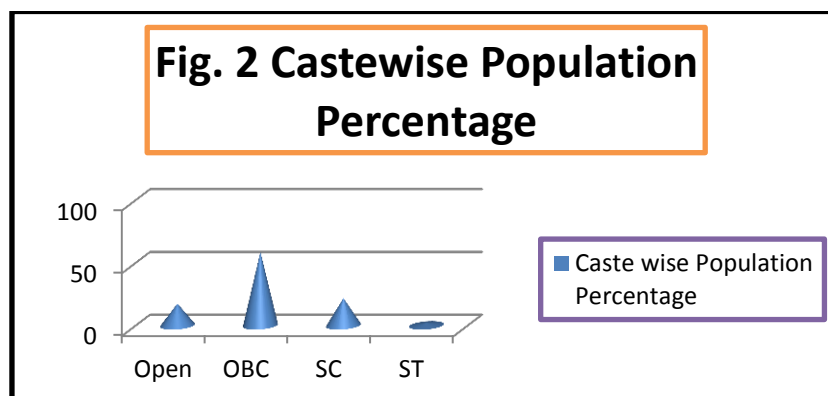
proportion of fishermen in this tehsil is found from Hindu religion (69.56 %) followed by Boudha (21.74 %), Muslim (4.35 %) and Christen (4.35 %).

Castewise Population

Table 2 Castwise Population of Fisherman in Shahuwadi Tehsil			
Sr. No.	Caste	Frequency	Percentage
1.	Open	08	17.39
2.	OBC	27	58.70
3.	SC	10	21.74
4.	ST	01	02.17
Total		46	100.00

Source: Based on field work.

Fig. 2 Castewise Population Percentage



The above table reveals the castewise classification of fishermen in Shahuwadi tehsil. It shows that the 58.70 % fishermen belongs to other backward class category. In which the sub-caste of Hindu-Bhoi, Hindu-Koli and Hindu-

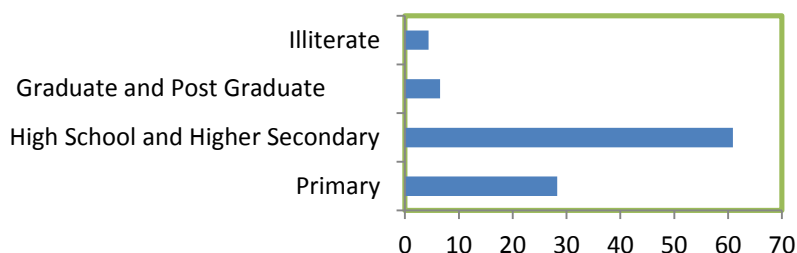
Gosavi is largest proportion subsequently the fishermen belongs to SC category is 21.74 % and Open category 17.39 %. The lowest proportion is found from ST category i.e. 2.17 %.

Educational Status

Sr. No.	Education	Frequency	Percentage
1.	Primary	13	28.26
2.	High School and Higher Secondary	28	60.87
3.	Graduate and Post Graduate	03	06.52
4.	Illiterate	02	04.35
Total		46	100.00

Source: Based on field work.

Fig. 3 Educational Status of Fisherman in Shahuwadi Tehsil



The above table states the educational status of fishermen in Shahuwadi tahsil. It indicates that the 60.87 % fishermen have acquired high school and higher secondary education, while 28.26 % fisherman have acquired primary education and

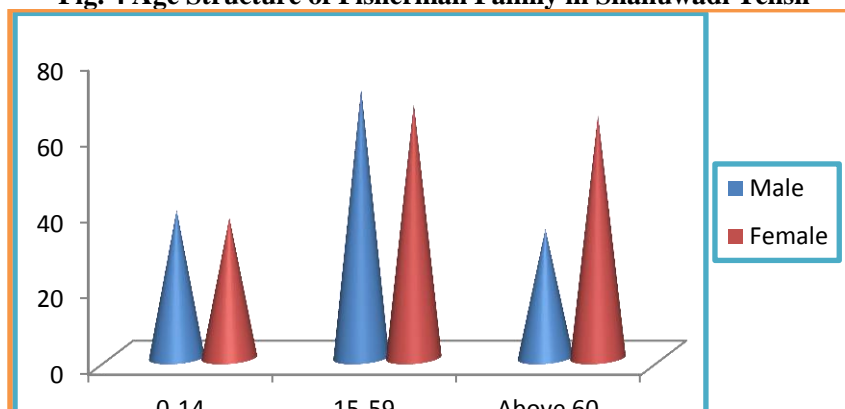
6.52 % fishermen have acquired graduate and post graduate education. It means 95.65 % literate people and 4.35 % illiterate people are involved in this occupation

Age-Structure

Age-Group	Male	Female	Total
0-14	39	37	76 (24.36 %)
15-59	71	67	138 (44.23 %)
Above 60	34	64	98 (31.41 %)
	144	168	312 (100.00 %)

Source: Based on field work.

Fig. 4 Age Structure of Fisherman Family in Shahuwadi Tehsil



The above table indicates the age wise population engaged in fishery in Shahuwadi tehsil. It states that 44.23 % population is involved in this occupation from the age group of 15-59. The lowest proportion is found i.e. 24.36 % in the age group of 0-14 years.

Occupational Structure

The major occupation of the fishermen in Shahuwadi Tehsil is fishery. They also involved in agriculture, animal husbandry, masonry, and private service etc. for their livelihood. The

68.33% fishermen are said that they are also engaged in secondary occupation and 31.67%

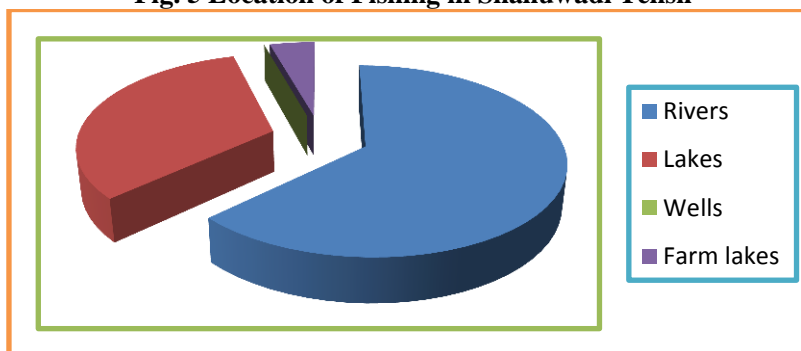
fishermen are not involved in secondary occupation. They depend upon only fishery.

Location of Fishing

Sr. No.	Location	Frequency	Percentage
1.	Rivers	29	63.04
2.	Lakes	15	32.61
3.	Wells	00	00.00
4.	Farm lakes	02	04.35
Total		46	100.00

Source: Based on field work.

Fig. 5 Location of Fishing in Shahuwadi Tehsil



The present table elaborates the place of fishing by the fishermen. It indicates that the largest proportion of fishermen (63.04 %) those who fishing in river. Whereas aggregate 36.96 % fishermen capture the fishes in lakes, ponds and farm lakes. The largest fishing is occurred in the Kadavi river.

Fishing Tools : The various tools are used for fishing in Shahuwadi tehsil. In which the various fishing tools are used such as nets, fishing hooks, ropes, boats, ferry, chest, bamboo and plastic basket etc. for the fishing.

Fish Varieties : There are different varieties of fishes found in river, lakes, ponds etc. The fishermen said that in river several varieties like Wam, Maral, *Chambhari*, *Kolsha*, *Chilapi*, *Dokarya*, Prawn, *Phek* etc. are found. Whereas the culture fishery is found in lakes and ponds. In which Rohu, Catala, Cyprinus, Silver Carp, *Nirgil*, *Chalat* etc. varieties are found.

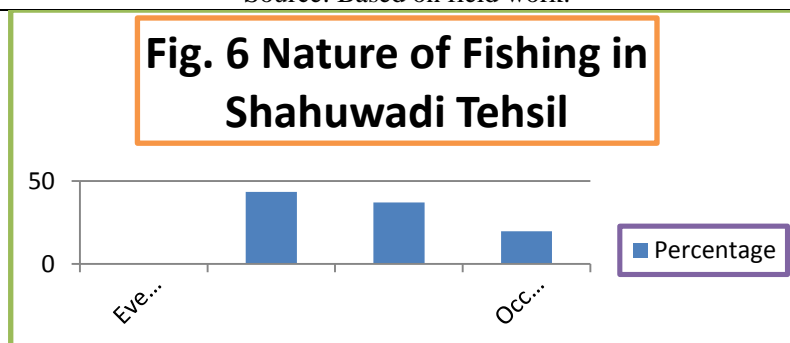
Rare Fish Varieties : The fishermen also pointed out that the varieties like *Khadshi*, *Vamb*, *Vanga*, *Prawns*, *Chambhari*, *Mangur* and *Jhinga* etc. are demolishing and hence these varieties are found rarely or very less extent.

Nature of Fishing

Sr. No.	Nature of Fishing	Frequency	Percentage
1.	Everyday	00	00.00
2.	Four days in a week	20	43.47
3.	Two days in a week	17	36.96
4.	Occasionally	09	19.57
Total		46	100.00

Source: Based on field work.

Fig. 6 Nature of Fishing in Shahuwadi Tehsil



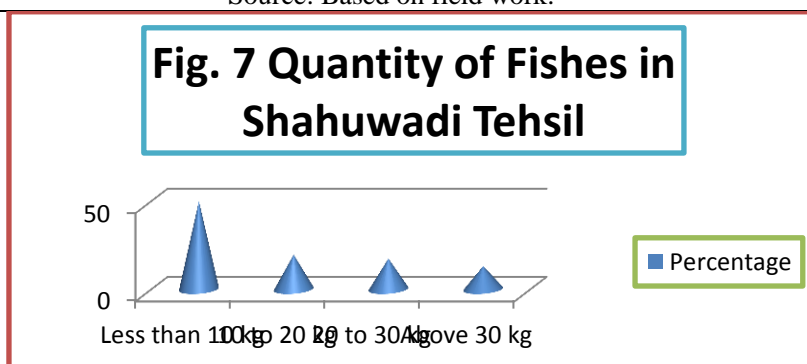
The present table reveals the proportion of fishing in Shahuwadi tehsil. It indicates that the 43.47 % fishermen who fishing four days in a week. While the 36.96 % fishermen fishing twice in a week. Whereas the proportion of fishermen who fishing occasionally is only 19.57

% which is the lowest. The percentage of fishermen who fishing every day is zero due to the reasons like secondary occupation, religious and other program lack of non – vegetarian population etc.

Quantity of Fish

Sr. No.	Quantity of Fishes (kg / day)	Frequency	Percentage
1.	Less than 10 kg	23	50.00
2.	10 to 20 kg	09	19.57
3.	20 to 30 kg	08	17.39
4.	Above 30 kg	06	13.04
Total		46	100.00

Source: Based on field work.



The present table elaborates the quantity of fishing found in Shahuwadi tehsil. It indicates that the 50.00 % fishermen said that proximately less than 10 kg fishes are found during fishing. While 19.57% fishermen have been found approximately from 10 to 20 kg and 17.39 % fishermen have found nearby 20 to 30 kg fishes. Whereas there are 13.04 % fisherman who found the fishes more than 30 kg during the fishing.

The Price of One kg Fish

The price of per kg of fish depends upon the variety of fishes i.e. Ratla, Rohu, and Silver these varieties are sold with Rs. 160 /- per kg. Whereas the price of Vamb is Rs. 350/- per kg. Rs. 150/- per kg for Maral and Rs. 80/- per kg for other varieties.

Purchase of Fish

Some fishermen also prefer to purchase the various types of fishes from other district for selling purposes. The study shows that only 14.00 % fishermen purchase the fishes from other districts like Ratnagiri, Sindhudurg. Whereas 86.00% fishermen are depending upon their own fishing for income generation. They also said that Malkapur, Shahuwadi and Bambavade are largest market of fishery in the tehsil. The low quantities of fishes have been demanded from coastal area.

Sell of Fish

Some fishermen tries to sell the fishes in other districts to get higher income. The study indicates that the 9.60 % fishermen have sold the fishes in Shirala tehsil of Sangali district. Whereas 90.40 % fishermen sell their fishes in local market or in other tehsils of Kolhapur district.

Fish Transporting

In order to transporting the fishes, the fishermen use the transport Vehicles like Bicycle, Tow-Wheeler, Auto- Rikshwa, Jeep etc. Some fishermen carry the fishes on their head in the market place.

Preservation Facilities

There is a lack of preservation facility for the fishermen in Shahuwadi tehsil. The study shows that only 6 % fishermen are used the preservation facility to store the fishes for long period. Whereas 94 % fishermen are not used such type of facility due to the huge storage expenditure or cost of preservation machinery. Hence they prefers plastic bucket for carrying the fishes up to the market.

The Major Problems of Fishing in Shahuwadi Tehsil

The major problems of fishery in Shahuwadi tehsil stated by the fishermen are us below.

1. There is low rate of fishes in Shahuwadi tehsil.
2. The supply of capital resource for fishing tools and preservation facility is very low.
3. The government assistance is only available for the member of fishery co-operative society.
4. The low quantity of fishing is found in summer season.
5. The demand for various types of fishes is very low.
6. The fishermen have used the conventional technology rather than modern technology for fishing.
7. There is lack of fish processing industry in Shahuwadi tehsil.
8. The demand for fish seeds is high but it is shortage in the tehsil.
9. The water level in the lake/ponds is fluctuated due to the percolate the water. It affects adversely on the fishing in Shahuwadi tehsil.

Remedies

1. In order to overcome the problems before fishing, the following remedies are suggested by the fishermen to solve the problem of fishery in Shahuwadi tehsil.
2. The price for fishes should be increased.
3. The government assistance for fishery should be increased.
4. The number of farm lakes, ponds should be increased.
5. The availability of fish seeds to the fishermen.
6. The financial assistance should be provided to all people instead of the members of fishery cooperative societies.
7. The modern technology should make available to fishermen and also give training to them.
8. There should be motivation to begin fish processing industries in Kolhapur district.
9. There should be make availability of modern preservation facilities in Shahuwadi tehsil.

Conclusion

The fishery in Shahuwadi tehsil plays an important role in overall development and income generation of the fishermen. There is no doubt about the fishery which helps to enhance the standard of living and employment opportunities to the people. However various problems are faced by the fishermen while

fishing. It indicates the Shahuwadi tehsil having large proportion of agriculture and allied activities. Therefore, the fishery occupation should be encouraged in this tehsil.

References:

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4. Questionnaire for Fishermen.