Socio-Economic Profile of Fishermen in Coastal Konkan Region of Maharashtra

Bhagyashree Patilkhede[1], V. G. Patil[2] and J. R. Kadam[3]

1Ph.D. Scholar, 2 Professor & Head, 3 Associate Professor, Department of Extension Education, Dr. B.S. Konkan KrishiVidyapeeth, Dapoli, Maharashtra-415712, India

ABSTRACT

The present study was conducted in Palghar district of North Konkan Coastal Zone and Ratnagiri district of South Konkan Coastal Zone. Two tahsils were selected from each district and two hundred and forty fishermen were selected. Personal interview technique was used for data collection. Considering the objectives and other aspects of the study, it was decided to study the sustainable livelihood activities of fishermen to assess the poverty, food insecurity and vulnerability of artisanal fishing communities in the Coastal Konkan Region of Maharashtra state.The result of the study showed that the average age of the respondents was 45 years and nearly half of them were illiterate. They belonged to joint family type and medium family size. Near about three-fourth of them were from Hindu religion and 38.75 per cent had high fishing experience. More than half (57.08 per cent) were in medium category of decision making pattern and 42.50 per cent did not attend any training. The average score regarding scientific orientation was 21.62. They had medium marketing behaviour and low level of infrastructural support.

Keywords: *Socio-economic Profile, Fishermen, Sustainable Livelihood Activities.*

Fisheries form the major source of employment, income and livelihood for most of the people inhabiting in the coastal region. Fishery is considered as one of the allied activities of agriculture.The Maharashtra state is endowed with a coastline of 720 kms. and the area suitable for marine fishing is 1.12 lakh sq. kms. There are 15,716 marine fishing boats in operation, of which 13,002 are mechanized. In addition to this, the area suitable for inland and brackish water fishing in the state is 4.19 lakh ha and 0.10 lakh ha respectively. There are 173 fish landing centres on the coastline of the state. The State has 30 fish seed production centres and during 2016-17, about 2,414 crore fish seed were produced. Number of marine fishing villages/localities wherein fishermen reside is 456. Fishermen families are 0.81 lakh with population of 3.86 lakh. Traditional fishermen families are 91 per cent. Among the occupied 1.93 lakh, 39.5 per cent of the fisherfolk were engaged in active fishing, 57.60 per cent in fishing allied activites and remaining in other activities. Of the total 0.76 lakh active fishermen 0.63 lakh were full-time, 0.11 lakh part-time and the rest were engaged in fish seed collection.

METHODOLOGY

The present study was conducted in Palghar district of North Konkan Coastal Zone which is situated at longitude 720 45' East and latitude 190 41' and Ratnagiri district of South Konkan Coastal Zone which lies between 160 30' to 180 04' north latitude and 730 02' to 730 52' east longitude as population of fishermen is maximum in these two districts. Based on the review of past studies and after thorough discussion with the academic staff of Extension Education, Social Scientists related to Fisheries Extension and by considering the need of the present study, the variables namely age, education, family type, family size, religion, fishing experience, decision making pattern, training attended, scientific orientation, marketing behavior and infrastructural support of the artisanal fishing communities in the Coastal Konkan Region of Maharashtra state were studied. Ex-post facto research design of social research was used. Three stage sampling method namely, selection of districts, selection of tahsils and selection of villages was followed. Byconsidering the criterion of having highest proportion of active fishing villages, 4 tahsilsnamely Dahanu, Palghar from Palghar district while tahsils namely Dapoli and Ratnagiri from Ratnagiri district were selected. The 12 villages namely Dhaktidahanu, Dahanu and Gungwada from Dahanutahsil and Satpati, Murbe and Datiware from Palghartahsil while villages namely Paj, Oni Bhati and Boorondi from Dapolitahsil and Rajiwada, Mirkarwada and Karla from Ratnagiritahsil were selected based on the maximum active fishermen population. Twenty fishermen from each village were selected by proportionate random sampling method, so that each of the two districts represents 120 active traditional fishermen. Personal interview technique was used for data collection. Door to door survey of 240 active traditional fishermen was carried out by the investigator himself, with the help of structured interview schedule developed for the study so as to collect information in line with the objectives of the study. The interview schedule was pretested by interviewing twenty fisherfolk from Mahadtahsil of Raigad district. The data collected from the respondents was processed and converted into standard scores, frequencies, percentages, and means as per the need of the study.

RESULTS AND DISCUSSION

Socio-economic profile of fishermen: The results of socio-economic profile of fishermen are presented in Table 1.

Table 1
Socio-economic profile of fishermen in Coastal Konkan Region of Maharashtra

SI. No.	Variable	Category	Respondents (N=240)	
			Frequency	Percentage
1.	Age (years)	Young (Up to 33)	79	32.92
		Middle (34 to 57)	126	52.50
		Old (58 and above)	35	14.58
		Average: 45 Total	**240**	**100.00**
2.	Education (Std.)	Illiterate (No Education)	113	47.08
		Can read and write (Functionally Literate)	9	3.75
		Primary (Up to 4)	40	16.67
		Middle (5 to 7)	29	12.08
		High School (8 to 10)	24	10.00
		Intermediate(11 to 12)	16	6.67
		Graduation (College)	5	2.08
		Post- Graduation	4	1.67
		Total	**240**	**100.00**
3.	Family type	Nuclear	116	48.33
		Joint	124	51.67
		Total	**240**	**100.00**
4.	Family size	Small (1 to 3)	24	10.00
		Medium (4 to 6)	141	58.75
		Large (7 to 9)	61	25.42
		Very large (9 and above)	14	5.83
		Average: 5 **Total**	**240**	**100.00**
5.	Religion	Hindu	189	78.75
		Muslim and Christian	30	12.50
		Other	21	8.75
		Total	**240**	**100.00**
6.	Fishing Experience (Years)	Low (Less than 5)	3	1.25
		Medium (6 to10)	52	21.67
		High (11 to 20)	93	38.75
		Very High (20 and above)	92	38.33
		Average: 16 **Total**	**240**	**100.00**
7.	Decision Making Pattern	Low (Up to 4)	56	23.33
		Medium (5 to 14)	137	57.08
		High (15 and above)	47	19.59
		Average:9.67 **Total**	**240**	**100.00**
8.	Training Attended	No Training	102	42.50
		Occasional	76	31.67
		Regular	62	25.83
		Total	**240**	**100.00**
9.	Scientific orientation	Low (Up to 15)	40	16.67
		Medium (16 to 27)	181	75.42
		High (28 and above)	19	7.91
		Average: 21.62 **Total**	**240**	**100.00**
10.	Marketing Behaviour	Low (Up to 28)	79	32.92
		Medium (29 to 81)	126	52.50
		High (82 and above)	35	14.58
		Average:54.76 **Total**	**240**	**100.00**
11.	Infrastructural Support	Low (Up to 13)	148	61.66
		Medium (14 to 38)	49	20.42
		High (39 and above)	43	17.92
		Average:25.16 **Total**	**240**	**100.00**

Age

Age is the important factor for analyzing the problems and prospects of fisher folk. Majority (52.50 per cent) of the respondents belonged to "middle age" category, while 32.92 per cent and 14.58 per cent of the respondents were in "young age" and "old age" category, indicating a trend of disinclination of generation next in the fisheries sector respectively. The average age of the respondents was 45 years. The results of the present study has been supported by Manimekalai and Sujathkumar (2016).

Education

Education is an important socioeconomic factor, which has bearing with understanding and adopting the fish farming technologies by fisher folk. Nearly about half (47.08 per cent) of the respondents belonged to "illiterate" (no education) category. The respondents in the category of "primary" education were 16.67 per cent, followed by "middle" education (12.08 per cent), "high school" education (10.00 per cent), "intermediate" education (6.67 per cent), "Can read and write" (3.75 per cent), "graduation" (2.08 per cent) and "post- graduation" (1.67 per cent"). Similar findings were reported by Jambhale (2014).

Family type

Family is one of the most important social institutions. It is the most pervasive and universal social institution. It plays a vital role in the socialization of individuals. Majority (51.67 per cent) of the respondents had "joint" family type, whereas 48.33 per cent fishermen belonged to "nuclear" type families. The findings of the present study are in conformity with the findings of Tapashi Gupta and Dey (2014).

Family size

The family as a single entity influences thoughts and actions of the individual members in fishing on a large scale. The data from Table revealed that, majority (58.75 per cent) of the respondents had "medium" family size, 25.42 per cent respondents had "large" family size. While, 10.00 per cent respondents had "small" family size and 5.83 per cent respondents had "very large" family size. The average family size of the respondents was 5 members. The findings are well supported by the research findings of Jambhale (2014), Sen and Roy (2015).

Religion

Religion plays a vital role in the social and cultural environment of people in a given area. It acts as a notable constraint and modifies social pattern of people. Three-fourth (78.75 per cent) of the fishermen were from "Hindu" religion, while 12.50 per cent were from "Muslim and Christian" religion. Remaining 8.75 per cent respondents belongs to "other" religion category. The results of the study conducted by Jambhale (2014) Kumar and ShivaniPatnaik (2014) and Mulla and Shiralashetti (2015), are comparable to the findings of the present study.

Fishing experience

Sustainable livelihood of fishermen might be influenced by the experience of the fisher folk in fishing activities. Majority (38.75 per cent) of the respondents had "high" fishing experience. While, 38.33 per cent, 21.67 per cent and 1.25 per cent had "very high", "medium" and "low fishing" experience, respectively. The average fishing experience score of the fishermen was 16 years. The findings of the study were in confirmation with the findings of Sen and Roy (2015).

Decision making pattern

Decision-making pattern can be regarded as a problem-solving activity terminated by a solution deemed to be satisfactory. The 57.08 per cent of the respondents were in 'medium' category, while 23.33 per cent and 19.59 per cent of the respondents were in "low" and "high" category of decision-making pattern, respectively. The average decision-making pattern score of the respondents was 9.67. The findings are similar with the findings of Baruahet al. (2013).

Training attended

Training is an effective tool for transfer of technology. It is essential for adoption of fish farming technology scientifically. The 42.50 per cent of the fishermen did not attend any training, while 31.67 per cent of respondents had attended the training "occasionally" and 25.83 per cent of them attended training "regularly". The findings are similar in conformation with the findings of Jambhale (2014), Tapashi Gupta and Dey (2014) and Manimekalai and Sujathkumar (2016).

Scientific orientation

Scientific orientation is the orientation of fishermen to adopt new technologies in a scientific way. More than three-fourth (75.42 per cent) of the fishermen were in "medium" category of scientific orientation, while 16.67 per cent and 7.91 per cent of the respondents were in "low" and "high" category of scientific orientation, respectively. The average scientific orientation score of the respondents was 21.62. The findings of the present study are analogous to the findings of Immanuel (2004), Shankar (2010) and Manimekalai and Sujathkumar (2016).

Marketing behaviour

Macro level analysis of the domestic and export trade sectors give guidelines for improving the efficiency of the fish marketing system which helps in developing policy frameworks. More than half (52.50 per cent) of the respondents were in "medium" category, while 32.92 per cent were in "low" category and 14.58 per cent were observed in "high" category of marketing behaviour. The average marketing

behaviour score of the respondents was 54.76, which indicated medium level. The findings are well supported by the research findings of Jha (2009).

Infrastructural support

Infrastructural support refers to the hardware means of both public and private organizations that set and implement different policies and legislation, delivering services to fishermen and perform all manner of functions that affects their livelihood. Majority (61.66 per cent) of the fishermen had "low" level of infrastructural support. While, 20.42 per cent and 17.92 per cent had "medium" and "high" level of infrastructural support. The average infrastructural support of the fishermen was 25.16, respectively. The findings are partially similar to the findings reported by Viswanatha et al. (2015).

CONCLUSION

The findings of the study have pointed out that, most of the fishermen were either illiterate or have completed primary education. This has adversely affected on the methods of fishing activities and livelihood of fishermen. Therefore, it is necessary to imbibe the importance of education by systematic efforts. To overcome the evil of illiteracy, it is necessary to promote the need and importance of education in the life of the fishermen community which will in turn help them in accessing various institutions and organization without hesitation.

The study also brought out that the catch was sold by the fishermen through the agents mostly on auction basis who did not give them remunerative price for the catch. To eliminate agents from the marketing of fish, it is necessary that the government should protect the fish prices by entering in the business of fish marketing as is done in case of agricultural commodities. It can be achieved by introducing new fish markets and fair price for fish catch.

It was seen that there exists a huge scope and potential in imparting training and skill development to fishers, particularly the young and women folk, on fisheries management and diversified enterprises including service delivery. It was observed that fishermen do not have enough work for about four months. This period can very well be utilized for training the fishermen in respect of keep and maintenance of fishing equipment, repairs of mechanized and non-mechanized vessels, recent technologies in the field of fisheries, preservation, processing and value addition of fish. A proper extension linkage mechanism should be developed between the extension personnel of the State Fisheries Department and the fishers for effective transfer of technologies and should ensure that a maximum number of fishers should participate while organizing any training programmes at the village level.

Received : September 26, 2017
Accepted : November 15, 2017

REFERENCES

1. Baruah, U. K., Barman, J., Choudhury, H. and Bordoloi, P. (2013). Training needs of the freshwater fish growers in Assam, India. *African Journal of Agricultural Research,* 8(16): 1500-1506.
2. Jambhale, S. G. (2014). Socio-economic and fishing profile of fishermen community in South Konkan of Maharashtra State: A Geographical Study. *Aayushi International Interdisciplinary Research Journal,* 1(4): 30-41.
3. Jha, U. M. (2009). Economics of fish farming in flood-prone areas of Bihar with special reference to Koshi River System. Thesis. Chankya Education Trust, Bhagalpur.
4. Kumar, S. T. and ShivaniPatnaik. (2014). Marine Fisheries; its current status, sustainable management and socio- economic status of the marine fishers of Odisha, through Indian Marine Policy: A Case Study. R*esearch Journal of Animal, Veterinary and Fishery Sciences,* 2(7): 10-19.
5. Manimekalai, M. and Sujathkumar, N. V. (2016). Socio-economic profile of women engaged in fisheries activities in Tamil Nadu, India. *Research Gate,* pp.1-11.
6. Mulla, A. M. and Shiralashetti, A. S. (2015). An overview of marine fisheries of India and coastal Karnataka. *Abhinav International Monthly Refereed Journal of Research in Management & Technology,* 4(11): 30-42.
7. Sen, A. and Roy, M. (2015). Socio-economic status of fish farmers in Tripura, India. *International Journal of Current Research,* 7(6): 17090-17096.
8. Shankar, S. (2010). An analysis of the knowledge level of fisherfolk about Marine Fisheries Management and Resource Conservation. *Unpub. M.F.Sc (thesis),* Central Institute of Fisheries Education, Mumbai.
9. Tapashi Gupta and Dey, M. (2014). Socioeconomic and Cultural Profile of Fish Farmers: A Study in and around Lumding Town, Nagaon District of Assam. *International Journal of Life Sciences, Biotechnology and Pharma Research,*3(4): 83-93
10. Viswanatha, B. S., Senthiladeban, R., Rajakumar, M. and AmaliInfantina, J. (2015). An overview of marine fisheries infrastructure and fish utilization pattern in Karnataka, *India. International Journal of Fisheries and Aquatic Studies,* 2(4): 233-238.