

Training Needs Of Fisherwomen In South Konkan Region Of Maharashtra State

A.V. Bhave^{1*}, A. K. Wavare², G. G. Pawar³, S. G. Mengal⁴ and N. A. R. Solkar⁵

¹*Assistant Professor & Head, Department of Commerce, Abasaheb Marathe Arts and New Commerce, Science College, Rajapur, Dist. Ratnagiri, Maharashtra (India) – 416702, Email: abhave82@gmail.com,

ORCID id: https://orcid.org/0009-0006-5786-7168

²Professor & Dean of Humanities, Karmaveer Bhaurao Patil University, Satara, Dist. Satara, Maharashtra (India) – 415001, Email: dranilwavare@gmail.com, ORCID id: https://orcid.org/0009-0003-8755-9703

³Assistant Professor, Department of Economics, Abasaheb Marathe Arts and New Commerce, Science College,

Rajapur, Dist. Ratnagiri, Maharashtra (India) – 416702, Email: gauravpawar310@gmail.com, ORCID id: https://orcid.org/0009-0005-5863-6567

⁴Assistant Professor, Department of Commerce, Arts, Science & Commerce College, Mokhada, Dist, Palghar, Maharashtra (India) - 401604, Email: santoshmengal1986@gmail.com, ORCID id: https://orcid.org/0009-0004-9584-208X

⁵Assistant Professor & Head, Department of Economics, Abasaheb Marathe Arts and New Commerce, Science College, Rajapur, Dist. Ratnagiri, Maharashtra (India) – 416702, Email: solkar.nabila@gmail.com, ORCID id: https://orcid.org/0009-0006-9542-8297

*Corresponding Author: - A.V. Bhave

*Assistant Professor & Head, Department of Commerce, Abasaheb Marathe Arts and New Commerce, Science College, Rajapur, Dist. Ratnagiri, Maharashtra (India) – 416702, Email: abhave82@gmail.com, ORCID id: https://orcid.org/0009-0006-5786-7168

ABSTRACT:

South Konkan region of Maharashtra contributes significant share in India's blue economy. Males in fishermen families in south Konkan region of Maharashtra are mainly involved in fish catching activities whereas female counterparts are engaged in fish selling / marketing. The current research paper studies the socio-economic status and training needs of fisherwomen in south Konkan region of Maharashtra. Total 100 fisherwomen from main fishing centers viz. Sakharinate, Mirkarwada, Harne and Jaigad of Ratnagiri district are randomly selected for the present research. Garrett ranking method is used to identify most preferred training head by fisherwomen in study area. Low participation of fisherwomen in occupational and skill-based trainings is the major problem identified by the present research. The study found that, 48% of fisherwomen in study area were never received any type of training. The study found that, market opportunities, sanitization & hygiene and processing & preservation of fish are the least preferred training heads whereas establishment of self-help groups, financial awareness, Fish & crustaceans handling and waste disposal are the most preferred training heads by fisherwomen in south Konkan region of Maharashtra.

Keywords: Konkan, Maharashtra, Blue economy, socio-economic status, training needs, fisherwomen, Garrett ranking.

INTRODUCTION:

Availability and sustainable use of natural resources play an important role in overall growth and development of any country. India has a very long coastline of about 7516.6 kms which is distributed among nine states and four union territories. From economic and geopolitical point of view, ocean resources are one of the crucial natural resources available in India. The entire system of ocean resources as well as the man-made economic infrastructure available in the country's onshore and marine legal jurisdictions make up India's 'Blue Economy.' According to World Bank Group (2017), Blue economy is the concept which seeks to promote economic growth, social inclusion, and the preservation or improvement of livelihood while at the same time ensuring environmental sustainability of oceans and coastal areas. India's blue economy contributes 95% share in country's commerce through transportation and provides an estimated 4% of country's GDP (Khanijo & Roy, 2022). Maharashtra state is one of the major stakeholders of India's blue economy which is rich in ocean resources. The coastal region of Maharashtra is popularly known as 'Konkan' having about 720 kms of intended coastline and 1.12 lakh sq. kms area suitable for marine fishing. Konkan region of Maharashtra consists of seven districts viz., Palghar, Thane, Mumbai Suburban, Mumbai city, Raigad, Ratnagiri and Sindhudurg. During year 2021-22, the total marine fish production in Maharashtra was 4.33 lakh MT. During the same period, Maharashtra state exported 1.86 lakh MT of marine fish worth of ₹ 5878 crore. (Department of Fisheries, Government of Maharashtra, 2022). Fishery is the main occupation of people living in coastal areas of Konkan region. According to Marine Fisheries Census (2016), Konkan region is home to total 87717 fishermen families. Males in fishermen community in Konkan region are mainly involved in fish catching activities whereas female counterparts are engaged in fish marketing. Fisherwomen play significant role

in livelihood of fishermen family as they contribute to domestic as well as fishery activities. However, fisherwomen in India in general and fisherwomen in Konkan region of Maharashtra in particular are facing several problems like lack of occupational skills, gender bias, vulnerability to climate change, limited access to financial services etc. Such problems can be solved by providing trainings to the fisherwomen. Occupational and skill-based trainings have great importance for better management of marine resources, improved fishing techniques, building resilience, preserving cultural and economic empowerment of fisherwomen. The present research paper examines the socio-economic attributes and training needs of fisherwomen in south Konkan region of Maharashtra state.

REVIEW OF LITERATURE:

Bhendarkar et al. (2017), studied socio-economic condition and entrepreneurship behavior of fisherwomen in the Ratnagiri district of Maharashtra state. The study found that, the socio-economic attributes namely education, family size, housing conditions and social participation are positively and significantly correlated with entrepreneurship attributes of fisherwomen.

According to B. Patilkhede et al. (2015), majority of fisherwomen in Konkan region of Maharashtra belong to middle age (34 to 57 years) group having fishing experience of 11 to 20 years. The study also found that, low literacy level is a common feature among the fisherwomen in Konkan region.

Khader (2019), studied problems faced by fisherwomen in coastal villages of Andhra Pradesh. The study highlighted several problems among fisherwomen like low economic status, illiteracy, unavailability of better fish marketing facilities, inadequate calory intake which leads to poor health. The study suggests the need of fisherwomen trainings on nutritional awareness, hygiene & sanitization, group marketing and post-harvest fish processing.

Naik et al. (2020), studied socio-economic conditions of shrimp farmers in south Konkan region of Maharashtra. The study found that, majority of respondents belong to middle age group having education up to graduate level. Progressive farmers are the main source of information for the majority of them. The study suggests that, socio-economic characteristics of shrimp farmers should be taken into consideration before formulating & designing trainings or developmental programmes.

Balamurugan and Thangamani, (2014), examined the impact of trainings on the stress level of fisherwomen in Puducherry. The study found that, the training programmes conducted for fisherwomen benefited not only in terms of reducing stress level but also gaining knowledge related to nutrition, value addition of fish products, entrepreneurial skills, time management, solid waste management, legal awareness and occupational health hazards among fisherwomen.

OBJECTIVES OF THE STUDY:

The present research study is based on the following specific objectives -

- 1. To study the socio-economic attributes of fisherwomen in south Konkan region of Maharashtra state.
- 2. To study the training needs of fisherwomen in south Konkan region of Maharashtra state.

MATERIALS AND METHODS:

Southern Konkan region of Maharashtra state includes two districts namely – Ratnagiri and Sindhudurg. The present study is conducted in Ratnagiri district of Maharashtra. Total 100 fisherwomen are randomly selected as respondents from main fishing ports viz. Sakharinate, Mirkarwada, Harne and Jaigad situated in Ratnagiri district. Garrett's ranking technique is used to evaluate the training preferences of the fisherwomen. As per this method, respondents were asked to assign rank for all training heads and the outcomes of such rankings were converted into score value with the help of the following formula:

Percentage Position = $\frac{100 \text{ (Rij-0.5)}}{\text{Ni}}$

Where

Rij = Rank given for the ith variable by jth respondents

Nj = Number of variables ranked by jth respondents

With the help of Garrett's table, the percent position is converted into scores. For each training head, the scores of each individual were added and then the total value of scores and mean values of score were calculated. The training head having highest mean value is considered to be the most important training head.

DATA ANALYSIS AND INTERPRETATION: -

Socio-economic attributes of fisherwomen in study area: -

The socio-economic attributes viz. age group, educational level, social category, marital status, family type, housing condition & ownership, annual family income of fisherwomen in study area are given in the table no. 1

Sr. No.	Particular	Frequency (n = 100)	%
	Age Group		
1	Young (18 - 34 years)	26	26%
	Semi-Medium (35 – 44 Years)	31	31%
	Medium $(45 - 64 \text{ years})$	33	33%
	Old (65 years and above)	10	10%
	Educational Level		
	Illiterate	8	8%
2	Primary Schooling	28	28%
	Secondary Schooling	38	38%
	Higher Secondary & above	26	26%
	Social Category		
3	Unreserved	33	33%
	Reserved categories (OBC)	67	67%
	Marital Status		
	Unmarried	11	11%
4	Married	62	62%
	Widow	19	19%
	Separated / Divorced	8	8%
	Family Type		
5	Joint	24	24%
	Separated	76	76%
	Housing Condition		
6	Kuccha	31	31%
	Pucca	69	69%
	House Ownership		
7	Owned	83	83%
	Rented	17	17%
8	Annual Family Income (in Rs.)		
	Up to Rs. 50000	17	17%
	Rs. 50000 to Rs. 1 lakh	40	40%
	Rs. 1 lakh to Rs. 2 lakhs	35	35%
	Rs. 2 lakhs and above	8	8%
	Training Received		
0	Never	48	48%
9	Occasional	37	37%
	Regular	15	15%

Table No. 1 Socio-Economic attributes of Fisherwomen in the Study Area

Source: Field survey (2022)

The study found that, majority of the fisherwomen (i.e., 33%) in study area belong to medium age group (45-60 years) followed by 31% fisherwomen who belong to semi-medium age group (35-44 years). 38% of respondents were found to have completed secondary schooling. Total 8 fisherwomen in study area were found illiterate. 67% of fisherwomen were found belong to reserved category whereas remaining 33% fisherwomen were found belong to unreserved category. Majority of fisherwomen (i.e., 62%) were found married. About 76% of fisherwomen in study area were found living in separated family. Most of the respondents were found to have owned and pucca house. As far as the annual family income of selected fisherwomen is concerned, 40% of respondents have annual family income between Rs. 50000 to 1 lakh followed by 35% of fisherwomen having annual family income between Rs. 1 lakh to 2 lakhs. The study found that, 48% of sample fisherwomen in study area never received any type of training. 37% of fisherwomen in study area were found to received trainings occasionally whereas only 15% of total respondents receive trainings regularly.

Preference and ranking of trainings given by fisherwomen in study area: -

The preference and ranking of trainings given by sample fisherwomen in study area is given in table no. 2.

Sr.		Rank given by the fisherwomen in study area							
No.	Training head	1 st	2 nd	3 rd	4 th	5 th	6 th	7 th	Total
1	Establishment of SHG's	28	17	13	11	11	5	15	100
2	Financial Awareness	10	32	14	15	13	12	4	100
3	Fish / Crustaceans handling	16	13	23	14	17	13	4	100
4	Waste disposal	7	10	22	38	12	3	8	100
5	Processing & preservation	6	8	17	11	28	18	12	100
6	Sanitization & hygiene	14	15	6	5	14	31	15	100
7	Market opportunities	19	5	5	6	5	18	42	100

Table no. 2 Preference and Ranking of Trainings Given by Fisherwomen in Study Area

Table no. 2 shows the preferences and ranking of trainings given by fisherwomen in south Konkan region of Maharashtra. Among the 100 selected fisherwomen, establishment of Self-help groups ranked as first by 28 respondents, ranked second by 17 respondents and 15 of the total respondents ranked it as seventh i.e., last. Similarly, Training on financial awareness ranked as first by 10 respondents, ranked second by 32 respondents whereas ranked seventh by 4 fisherwomen. Trainings on market opportunities ranked as first by total 19 fisherwomen whereas ranked seventh by 42 fisherwomen. It is clearly evident from the table no. 2 that trainings on establishment of self-help groups is the most preferred option by the fisherwomen in the study area.

Calculation of percentage position and Garrett value: -

The percentage position is calculated with the help of above formula. With the help of Garrett table, Garrett values related to each calculated percentage position values are obtained. Table no. 3 shows calculated percentage position values and the Garrett values.

Sr. No.	Percentage Position 100 (Rij -0.5) / Nj	Calculated value	Garrett value		
1	100 (1 -0.5) / 7	7.14	78		
2	100 (2 -0.5) / 7	21.43	65		
3	100 (3 -0.5) / 7	35.71	57		
4	100 (4 -0.5) / 7	50.00	50		
5	100 (5 -0.5) / 7	64.29	42		
6	100 (6 -0.5) / 7	78.57	34		
7	100 (7 -0.5) / 7	92.86	22		

Table no. 3 Percentage Position and Garrett Value

Calculation of Garrett scores and ranking: -

By multiplying preferences / ranks in table 2 with Garrett values in table 3, Garrett scores related to each training head were calculated. The total Garrett score is calculated by summing up all Garrett scores of particular training head. Then, the mean of all Garrett scores were calculated and the ranks were assigned to each training heads with the help of mean value. Table no. 4 and shows Garrett scores and ranks given.

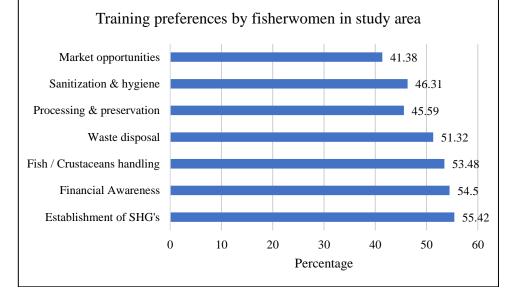
Tuble no. 4 Calculation of Garrett Score and Tanking										
Tusining has d	Ranks given by fisherwomen							T-4-1	N	Daula
Training head	1 st	2 nd	3 rd	4 th	5 th	6 th	7 th	Total	Mean	Rank
1. Establishment of SHG's	2184	1105	741	550	462	170	330	5542	55.42	Ι
2. Financial awareness	780	2080	798	750	546	408	88	5450	54.5	II
3. Fish / Crustaceans handling	1248	845	1311	700	714	442	88	5348	53.48	III
4. Waste disposal	546	650	1254	1900	504	102	176	5132	51.32	IV
5. Processing, preservation	468	520	969	550	1176	612	264	4559	45.59	VI
6.Sanitization & hygiene	1092	975	342	250	588	1054	330	4631	46.31	V
7. Market opportunities	1482	325	285	300	210	612	924	4138	41.38	VII

Table no. 4 Calculation of Garrett score and ranking

The study found that, the mean Garrett score of establishment of self-help group is 55.42 and ranks first. Training need of financial awareness ranks second with mean Garrett score equals to 54.5. Fish & crustaceans handling ranks third with

mean Garrett score 53.48. It is evident from figure 1 that, market opportunities, sanitization & hygiene and processing & preservation of fish are the least preferred training head of fisherwomen in south Konkan region of Maharashtra.

Figure no. 1 Training preferences given by fisherwomen in South Konkan region of Maharashtra



MAJOR FINDING AND CONCLUSION:

The study found that, majority of fisherwomen in south Konkan region of Maharashtra are belong to 45 to 64 years of age group. Low education level is the common characteristic found among the fisherwomen in the study area. As far as the housing condition of fisherwomen in south Konkan region of Maharashtra is concerned, majority of them were found to living in owned pucca houses. Considering the marital status of fisherwomen in study area, majority of them were found married. The economic status of fisherwomen in study area is found low since about 88% of them found to have annual family income less than Rs. 2 lakhs. Low participation of fisherwomen in occupational and skill-based trainings is the major problem identified by the present research. The study found that, 48% of fisherwomen in study area were never received any type of training whereas only 15% of fisherwomen were found to receive trainings on regular basis. The study found that, market opportunities, sanitization & hygiene and processing & preservation of fish are the least preferred training heads by fisherwomen in south Konkan region of Maharashtra. There is urgent need to provide trainings to the fisherwomen in south Konkan region of Maharashtra on the topics of establishment of self-help groups, financial awareness, Fish & crustaceans handling and waste disposal. The study suggests that, the socio-economic attributes and training needs of fisherwomen should be taken into consideration while framing and designing the training programmes in south Konkan region of Maharashtra.

REFERENCES:

- 1) Balamurugan, K., & Thangamani, K. (2014). Training on Stress Management for Fisherwomen in Puducherry. *International Journal of Scientific Research*, 3(1), 194–196.
- 2) Bhargavi, K., Chirwatkar, B. B., Das, A., Behera, S., & Bhakta, D. (2020). Socio-Economic status of fisherwomen community in coastal Vizianagaram district of Andhra Pradesh, India. *Journal of Fisheries*, 8(1), 741–745.
- 3) Bhendarkar, M. P., Gajbhiye, A., Chaudhari, K. K., Laxmi, & Rathod, R. (2017). An Assessment of Entrepreneurship Behaviour of Fisherwomen in the Ratnagiri block of Ratnagiri District, Maharashtra State, India. Asian Journal of Agricultural Extension, Economics and Sociology, 17(3), 1–8. https://doi.org/10.9734/ajaees/2017/33344
- 4) Biswas, M. P., & Rama Mohan Rao, M. (2014). Fisherwomen of the East Coastal India: A study. *International Journal of Gender and Women's Studies*, 2(2), 297–308. https://doi.org/10.15640/ijgws
- 5) Department of Fisheries, Government of Maharashtra. (2022). Fish Production Report 2021-22.
- 6) Department of Fisheries, Ministry of Fisheries, Animal Husbandry and Dairying, Government of India. (2022). *Annual Report 2021-22*.
- Department of Fisheries, Ministry of Fisheries, Animal Husbandry and Dairying, Govt. of India. (2016). Marine Fisheries Census 2016 India. In www.cmfri.org.in. Retrieved October 16, 2022, from https://www.cmfri.org.in
- 8) Dhanavandan, S. (2016). Application of Garret Ranking Technique: Practical Approach. *International Journal of Library and Information Studies*, 6(3), 135–140. https://www.ijlis.org
- 9) Directorate of Economics and Statistics, Planning Department, Government of Maharashtra. (2022a). District Social and Economic Review 2021: Ratnagiri District. In *www.mahades.maharashtra.gov.in*. Retrieved November 16, 2022, from https://www.mahades.maharashtra.gov.in
- 10)Directorate of Economics and Statistics, Planning Department, Government of Maharashtra. (2022b). Economic Survey of Maharashtra: 2021-22. In *www.mahades.maharashtra.gov.in*. Retrieved October 11, 2022, from https://www.mahades.maharashtra.gov.in

- 11)Drewes, E. & Bay of Bengal Programme. (1986). Activating fisherwomen for development through trained link workers in Tamil Nadu, India (1st ed.) [Print]. Development of Small-Scale Fisheries in the Bay of Bengal.
- 12) Khader, V. (2019). Challenges Faced by Fisher Women of South India Specific. *Acta Scientific Nutritional Health*, *3*(7), 137–139.
- 13) Khanijo, R., & Roy, S. (2022). India and the Blue Economy: Challenges and Way Forward. United Service Institution of India, 1(2), 1–15.
- 14) Madhana Rekha, B. (2020). Economic Contributions of fisher women of Publicat Lake: A study. Madras Christian College.
- 15)Naik, B., Patil, S. V., Shirdhankar, M. M., Yadav, B., Tibile, R. M., Chaudhari, K. J., Wasave, S. M., & Yewale, V. G. (2020). Socio-Economic profile of shrimp farmers of South Konkan Region, Maharashtra, India. *International Journal of Current Microbiology and Applied Sciences*, 9(9), 1371–1380. https://doi.org/10.20546/ijcmas.2020.909.174
- 16)Patilkhede, B., Patil, V. G., & Kadam, J. R. (2015). Socio-Economic Profile of Fishermen in Coastal Konkan Region of Maharashtra. *International Journal of Extension Education*, 13(1), 32–35.
- 17) Patilkhede, B. S., Patil, V., & Kadam, J. (2018). Socio-economic and Marketing Constraints Faced by Fishermen in their Various Sustainable Livelihood Activities in Coastal Konkan Region of Maharashtra, India. *International Journal* of Current Microbiology and Applied Sciences, 7(2), 2984–2989. https://doi.org/10.20546/ijcmas.2018.702.363
- 18) Patterson, J., Linden, E., Bierbrier, C., Lofgren, I., & Edward, J. K. P. (2008). Community-Based adult education for the fisherwomen of Rajapalyam Fishing Village in Tuticorin, southeast coast of India. *Australian Journal of Adult Learning*, 48(2), 399–405. http://search.informit.com.au/fullText;dn=316195243274685;res=IELHSS
- 19)Peke, S. (2013). Women Fish Vendors in Mumbai: A study report (1st ed., Vol. 1) [Print]. International Collective in Support of Fishworkers. https://www.icsf.net
- 20)Salim, S. S., Antony, B., & Geetha, R. (2011). Women Empowerment and Fisheries Sector in Kerala (1st ed., Vol. 1) [Print]. Central Marine Fisheries Research Institute, Indian Council of Agricultural Research. https://www.cmfri.org.in
- 21)Salim, S. S., & Geetha, R. (2012). Empowerment of Fisherwomen in Kerala: An assessment. Indian Journal of Fisheries, 60(3), 73–80.
- 22) World Bank Group. (2017). The Potential of the Blue Economy (1st ed., Vol. 1) [Print]. The World Bank. https://www.worldbank.org
- 23) Yadav, B. M., Patil, S. V., Mandavkar, S. S., Wasave, S. M., Shirdhankar, M. M., Chaudhari, K. J., & Naik, B. V. (2020). Socio-economic status of fishers of Ratnagiri, Maharashtra. *International Journal of Current Microbiology* and Applied Sciences, 9(9), 3011–3021. https://doi.org/10.20546/ijcmas.2020.909.372