



PARTICIPATION OF FISHERWOMEN IN FISHERIES COOPERATIVE SOCIETIES OF BARGI RESERVOIR, MADHYA PRADESH



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INTRODUCTION

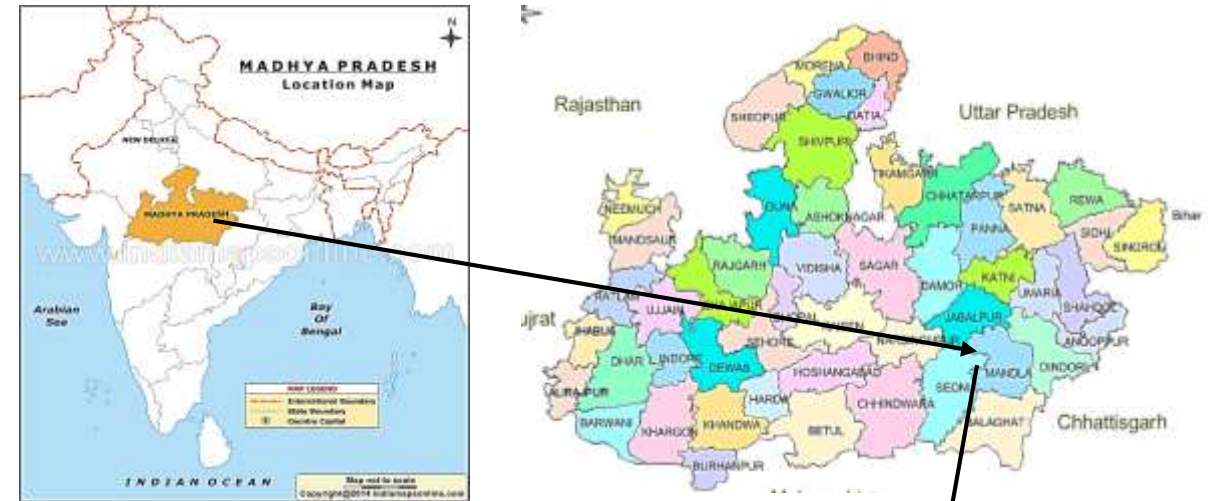
- It was estimated that, overall, fisheries and aquaculture assure the livelihoods of 10–12% of the world's population (FAO, 2014b).
- Globally, women constitute an estimated 47% of the fisheries workforce, which includes both harvest and post-harvest activities (FAO, 2013; Harper *et al.*, 2013; World Bank, 2012a).
- It is estimated that, overall, women accounted for more than 19% of all people directly engaged in the fisheries and aquaculture primary sector in 2014 (FAO, 2016).
- In 2010, they represented almost half the people working in small-scale fisheries with greater numbers working in inland fisheries (FAO,2010).
- Gender roles based on socially constructed norms assigned to biological sex have resulted in a gendered division of labour, which has created major inequalities across the world in a wide range of social, economic, educational, and political-related issues (Reiter, 1975; Wirls, 1986).
- The lack of gender equality in the fisheries sector is partly a result of the gender-based dichotomous division of labor, where men are characterized as providers (fishers) and women as caregivers (responsible for childcare) (Harper *et al.*, 2013).

INTRODUCTION

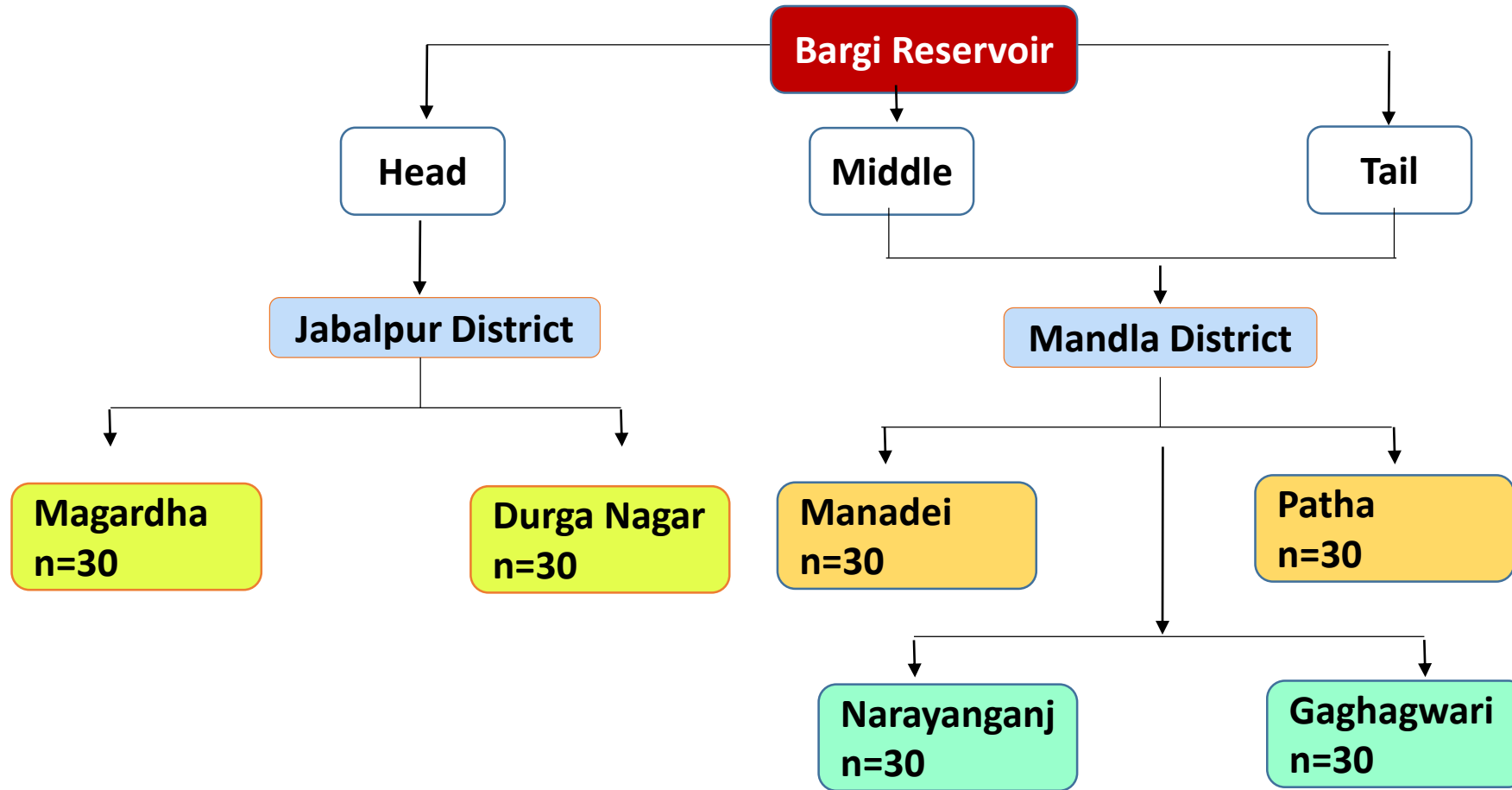
- In agriculture, their contributions are at least quantified and are found to be about 50% whereas in fisheries, their picture is not at all visible and their cry is not louder enough to catch the attention of the outer world (Ashaleta *et al.*, 2002).
- Fisherwomen have been reported to play a significant role in coastal and marine fisheries where they are engaged in fishing, processing, and marketing. However, their vital roles remain unarticulated, unrecognized, and undervalued in inland capture fisheries.
- Their involvement in fisheries value chains is often considered invisible despite being active in a wide range of harvest and post-harvest activities in capture fisheries (Rathod *et al.*, 2019; Medard *et al.*, 2002).
- Empowerment of women and gender equality is one of the eight-millennium goals to which world leaders agreed at the Millennium Summit held in New York in 2000 (Meetei *et al.*, 2016).
- Globally, women in fishing communities play multidimensional roles that include livelihood, household, reproductive, and community ones (Pushp *et al.*, 2017; Rathod *et al.*, 2019).
- Capturing fisherwomen's experiences about the constraints they face are essential for increasing their participation in key inland capture fisheries resource management decisions and for improving the quality of gender mainstreaming in the fisheries sector.
- Therefore, there is a need to improve the accountability of women in fisheries activities by getting them recognized through participation in FCS.

Locale of study

- Information was collected from **six villages**, two from **Jabalpur district** and four from **Mandla district** of **Madhya Pradesh, India**.
- A multi-stage sampling method was employed to collect data.
- Subsequently, two fishing villages from the head, middle, and tail stretch of the reservoir were randomly selected.
- All three stretches were included in the study to make it more comprehensive.
- Magardha and Durganagar were selected from Jabalpur, and from Mandla; Manadei, Gaghwari, Patha, and Narayanganj villages were selected.
- **Thirty fisherwomen from each fishing village/Fishers' Cooperative Society** were purposively selected for the study thus, making a total of 180 respondents.



Sampling Design



Multi-stage
sampling

n=180

METHODOLOGY

- Qualitative data collection methods i.e. [Key Informants Interview](#) of representatives of FCS was carried out to study gender-wise membership of FCS.
- A [daily routine chart](#) was employed to study the time allocated for daily routine activities of fisherwomen including the productive, reproductive, and household work.
- [Personal interviews](#) were employed to study the participation of fisherwomen in different fisheries activities. The extent of participation of women in cooperative societies was studied in terms of active participation, passive participation, and non-participation.
- ✓ Active Participation was expressed as the fisherwomen's participation in fisheries activities as registered members of a FCS.
- ✓ Passive Participation was stated as the fisherwomen's participation in fisheries activities, but not as a registered member of a FCS. However, their involvement is for contributing to the men counterpart (supportive role), who was a member of the FCS.
- ✓ Non-Participation *means* fisherwomen do not contribute and participate in fisheries activities.
- [Focus Group Discussions](#) were conducted to explore and categorize constraints.

METHODOLOGY

- Quantitative data collection methods, i.e., [percentage analysis](#) was used to analyze the participation of fisherwomen in different fisheries activities.
- [Rank Based Quotient \(RBQ\)](#) was employed to rank constraints faced by fisherwomen.
- The preferential ranking technique was used to identify constraints and alternatives.
- The ranking of constraints and alternatives was done by calculating RBQ as given by **Sabarathanam, (1988)**.

$$RBQ = \frac{\sum f_i(n+1-i) \times 100}{N \times n} \dots \dots (2)$$

- ✓ Where f_i = number of fisherwomen reporting a particular problem under i^{th} rank.
- ✓ N = number of fisherwomen.
- ✓ n = number of problems identified.

Objectives

To study the gender breakdown of membership in Fishers' Cooperative Societies

To assess the daily routine profile and participation of fisherwomen in fisheries activities

To identify the social, economic, institutional and production constraints perceived by fisherwomen

RESULTS AND DISCUSSION

Table 1 Gender breakdown of membership in Fishers' Cooperative Societies

FCS	Registered members		Total	Inactive members		Total	Active members		Total
	Male	Female		Male	Female		Male	Female	
Magardha	38	-	38	11	-	11	27	-	27
Durganagar	40	06	46	05	-	05	35	06	41
Manadei	60	02	62	50	-	50	10	02	12
Gaghagwari	74	04	78	28	-	28	46	04	50
Patha	33	01	34	09	-	09	24	01	25
Narayanganj	28	03	31	08	-	08	20	03	23
Frequency	273	16	289	111	0	111	162	16	1
Percentage	91.12	8.88						8.88	

- Table 1 depicts that FCS consists of only 8.88% of the fisherwomen as the members while the remaining membership was occupied by fishermen, however, all the fisherwomen were active member (fishing for more than 100 days/year) of FCS
- None of the fisherwomen were in leadership position i.e. representative of FCS. This is because all the FCS were dominated by fishermen. Fishermen being head of the family and the primary breadwinner from fishing occupation were majorly the registered members of FCS.

Table 2 Daily routine chart of fisherwomen in Bargi reservoir

Sl. No.	Activities	Time	Duration (hrs)
1.	Drinking water collection	4-5 am	1
2.	Cooking	5-7 am	2
3.	Fish harvesting at landing centre	7-9 am	2
4.	Boating	9-10 am	1
5.	Fish smoking	10-11 am	1
6.	Household activity	11-1 pm	2
7.	Rest	1-2 pm	1
8.	Net making/repairing	2-4 pm	2
9.	Fish trading	4-6 pm	2
10.	Cooking	6-8 pm	2
11.	Household activity	8-10 pm	2
12.	Sleeping	10-4 am	6

- Table 2 depicts that fisherwomen were engaged for around 8 hours/day in fisheries activities such as fish harvesting & boating with their male counterparts, fish smoking, net making/repairing, and fish trading either at home or fish market and
- They were involved in household works such as drinking water collection, cooking and household activities for around 9 hours/day.
- **Ashaletha et al., 2002** also reported the involvement of fisherwomen in fisheries activities for around 9 hours/day.

Participation of fisherwomen in fisheries activities

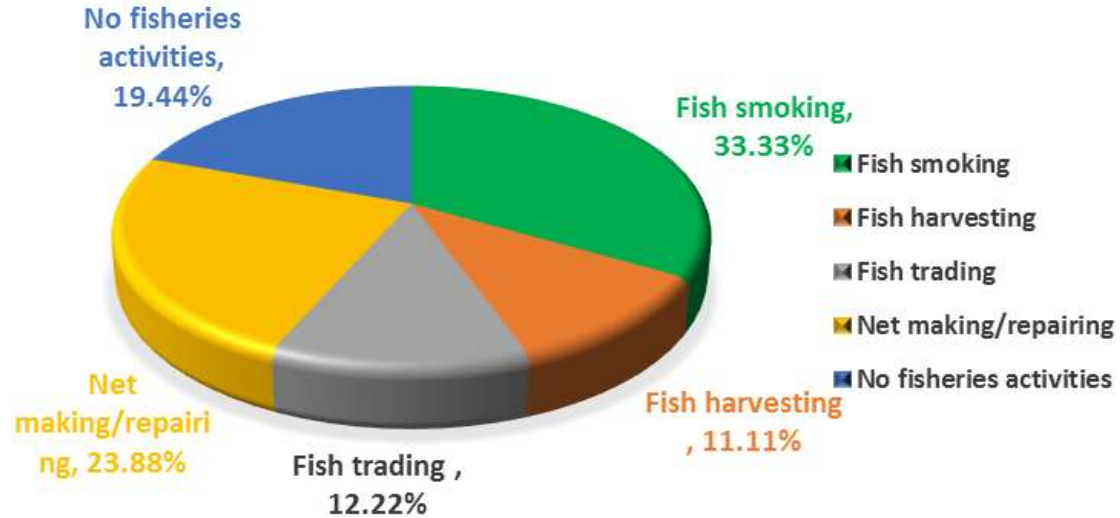


Figure 1 (a) Participation of fisherwomen in fisheries activities

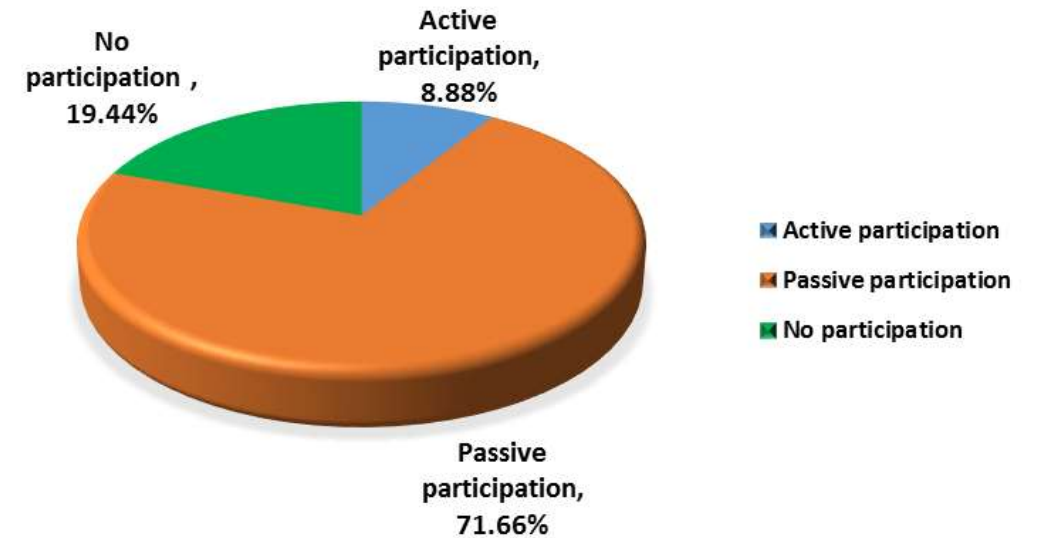


Figure 1 (b) Type of participation of fisherwomen in fisheries activities

Participation of fisherwomen in fisheries activities

- Figure 1 (a) depicts that majority of fisherwomen (80.54%) were engaged in several fisheries activities.
- The fisherwomen were involved in fish processing i.e., smoking (33.33%), fish trading (12.22%), fish harvesting (11.11%), and net making/repairing operations (23.88%).
- Out of 80.54% of the fisherwomen engaged in fisheries activities, only 8.88% of the fisherwomen were actively engaged in fisheries activities as were the active members of FCS.
- The majority of the fisherwomen (71.66%) were passively participating in the fisheries activities i.e., involved in fisheries activities but not the member of FCS.
- Their participation is unpaid & unrecognized, unlike men, which is one of the primary reasons for having less/no access and no control over the resources.
- Only 19.44% of fisherwomen were not contributing to any fisheries activities (Figure 1 (b)).

Participation of fisherwomen in fisheries activities

- The reason behind their limited membership in FCS might be because fisherwomen were observed to be the members when their men counterpart was also a member or when fisherwomen was a widow or belong to either Scheduled Tribe or Scheduled Caste (eligible category for reservation) for whom one seat was explicitly reserved.
- The reason behind their less participation in fisheries activities such as fish harvesting and fish trading as compared to fish processing i.e., smoking and net making/repairing activities might be due to socio-cultural factors leading to the gender division of labour followed by their subordinate position and gender-based power relations within the patriarchal society.
- Fishermen hold authority and power in fish harvesting and fish trading (economic activities), which require skills. In contrast, fisherwomen were assigned less skilled work of lower hierarchy at home., i.e., fish smoking and net making/repairing (non-economic activities).
- **Keno and Zewdie, 2016** found that fishing was male-dominated (75.25 %), while processing was female-dominated (10.75 %) in Fincha Amarti Nashe Reservoir of Oromia State, Horo Guduru Wollega zone, Ethiopia.

Constraints perceived by the fisherwomen

Social constraints

Table 3 Social constraints faced by fisherwomen

Constraints	RBQ	Rank
Poor social status	93.23%	1
Poor social acceptance	87.41%	2
Lack of representation in FCS	82.77%	3
Lack of ownership of assets	78.65%	4
Lack of access and control over resources	71.09%	5
Lack of access to a leadership position in FCS	65.33%	6
Lack of access to change agencies	54.84%	7
Less interaction with development agencies	43.90%	8
Lack of social mobility due to household restrictions	38.19%	9
Low literacy rate	31.32%	10
Gender division of labour and wage discrimination	28.97%	11

- Similar observations have been reported by [Ashaletha et al., 2002](#); [Farooqi et al., 2018](#) in their study that ranked poor social status, poor social acceptance, and lack of representation in FCS as topmost social issues of fisherwomen of India.
- Division of labour and wage discrimination, less interaction with development agencies, and restrictions to go for work were other social issues reported by them.
- Lack of ownership of assets, lack of access to change agencies, and low literacy rate were reported under personal issues perceived by fisherwomen of India ([Ashaletha et al., 2002](#); [Farooqi et al., 2018](#)).
- A similar type of constraint of poor social status and low level of literacy has been reported in a study done in Kashmir, India by [Bhat and Sharma \(2020\)](#).

Economic constraints

Table 4 Economic constraints faced by fisherwomen

Constraints	RBQ	Rank
Poor income	86.71%	1
Lack of working capital	73.99%	2
Lack of alternative livelihood opportunities in fishing close season	62.33%	3
Lack of saving	55.06%	4
Difficulty in access of credits	47.11%	5
High interest on credit by banks	39.72%	6
High cost of craft construction	33.33%	7

- **Bhat and Sharma (2020)** have reported about the economic constraints such as less income, difficulty in access of credits, high interest on credit by banks, high cost of craft construction faced by the fishermen and fisherwomen of Kashmir.
- Low income through fishing and financial problems have also been reported by **Katre et al., 2021** in their study on 'Alternative Livelihood Opportunities for Fishers of Bargi Reservoir, Madhya Pradesh'.

- The lack of alternative livelihood opportunities has significantly affected the fisherwomen to borrow money usually from private moneylenders at a very high interest rate which they could hardly be able to pay back, as it would have doubled by then leading the indebtedness to continues.
- This has also has been reported by **Ashaletha et al., 2002**.
- **Ashaletha et al., 2002; Farooqi et al., 2018** also reported poor income, lack of working capital, and lack of saving as the economic issues and lack of alternate employment opportunity in the off-season was reported under personal issues faced by the fisherwomen.

Institutional constraints

Table 5 Institutional constraints faced by fisherwomen

Constraints	RBQ	Rank
Gender biases in getting membership of FCS	89.03%	1
Limited access to training & extension services	81.42%	2
Lack of access to saving scheme	77.84%	3
Lack of awareness about different fisheries schemes	68.51%	4
Inaccessibility to institutional credit	60.97%	5
Lack of awareness about cooperative principles	54.22%	6
Lack of women-specific fishers' welfare schemes	46.11%	7
Inadequate technical advice/information support	38.30%	8

- **Bhat and Sharma (2020)** have reported less cooperation by the DoF and lack of awareness about different fisheries schemes as the institutional constraints faced by fishermen and fisherwomen of Kashmir. They also specified that even if the fishers were familiar with any scheme and applied for the same, they were not sure if they would get any benefit from that scheme.
- **Ashaletha et al., 2002** have reported institutional issues faced by fisherwomen of India such as inaccessibility to credit, improper saving schemes, and insufficient information support.
- Lack of training opportunities was reported under technological issues (**Ashaletha et al., 2002; Farooqi et al., 2018**).

Production constraints

Table 6 Production constraints faced by fisherwomen

Constraints	RBQ	Rank
Lack of skills on operation of craft and gear	85.91%	1
Decline in stocked & native fish species	73.85%	2
Destructive fishing practices	59.60%	3
Pollution in reservoir	44.03%	4

- The production constraints including pollution and encroachments along the Dal lake, Manasbal lake, and Wular lake of Kashmir have also been reported by **Bhat and Sharma (2020)**.
- Destructive fishing practices, poaching activities and lack of proper implementation of conservation measures have also been reported by **Katre et al., 2021** in their study on 'Alternative Livelihood Opportunities for Fishers of Bargi Reservoir, Madhya Pradesh'.
- These may be the reason for the decline in stocked & native fish species of the *Bargi* reservoir.

CONCLUSION

- Gender issues and women's contribution to fisheries activities have emerged as a subject of global concern. Although women contribute significantly to fisheries, their role is either masked or unrecognized. They mostly perform unpaid work, which hinders their empowerment.
- The study revealed that gender disparities exist in fisheries, which tend to favor men over women. There were more men members in FCS, and their participation was focused on economically high activities with prospects of improved socio-economic status compared to women.
- The study further exposes that these disparities were attributed to the gender division of labour, decision making, and socio-cultural values, customs, attitudes, and norms.
- According to **Madhya Pradesh Cooperative Society Act 1960** and **Madhya Pradesh Inland Fisheries policy 2008**, at least 33% of the membership of FCS shall be reserved for women at the time of registration, though it was observed that membership criteria for women was not implemented & fulfilled in FCS.
- Gender-sensitive fisheries policies must come into force, taking into account women's role to ensure effective participation and empowerment to make their role visible leading to decision-making ability and control over resources.

REFERENCES

- Adekanye, EA. 2019. Exploratory Study on Information Needs for Socioeconomic Empowerment of Women Artisans in Ikorodu, Lagos State, Nigeria. *Journal of Library and Information Sciences*, 7(1): 79-89.
- Ahmed, MK. Halim, S. and Sultana S. 2012. Participation of Women in Aquaculture in Three Coastal Districts of Bangladesh: Approaches Toward Sustainable Livelihood. *World Journal of Agricultural Sciences*, 8(3): 253-268.
- Ahmed, K.K., Rahman, S. and Chowdhury, M.A.K. (1998). Role of tribal women in reservoir fisheries, Bangladesh. In: *International Symposium on Women in Asian Fisheries*, 5AFF, Chiangmai (eds M. Shariff, M.J. Williams and M.C. Nandeesha). ICLARM, Chiangmai, pp. 157–160.
- Ashaletha, S., Ramachandran, C., Immanuel, S., Diwan, A.D. and Sathiadhas, R., 2002. Changing Roles of Fisherwomen of India Issues & Perspectives. *Women in fisheries*, pp.21-43.
- Baherirad, S. 2020. The Role of Women's NGOs in Women's Empowerment in Turkey. Doctoral Dissertation, Middle East Technical University.
- Bhat, N.M. and Sharma, A., 2021. Applying a gender lens to the constraints faced by fishers of Kashmir. *Journal of Entomology and Zoology Studies*, 9(2): 1028-1032.
- Boraian, MP. 2003. Empowerment of Rural Women: Towards Reversal of Gender Relations. *Indian Journal of Social Work*, 1(64): 521-32.
- Dhanaraj, A. 2017. Empowerment of Women in the Fisheries Industry. *International Journal of Current Humanities & Social Science Researches*, 26:1(3).

REFERENCES

- Farooqi, F.S., Rasool, S. and Simnani, S.A., 2018. Problems & prospects of fisherwomen of Kashmir Valley. *International Journal of Fisheries and Aquatic Studies*, 6(3), pp.358-360.
- Food and Agriculture Organization of the United Nations (FAO) (2013). Good practice policies to eliminate gender inequalities in fish value chains. UN Food and Agricultural Organization, Rome.
- FAO, 2014b. The State of World Fisheries and Aquaculture (available at <http://www.fao.org/3/a-i3720e/index.html>).
- Galindo-Arévalo, M.T. 1995. Women's empowerment through cooperatives in Latin America. Doctoral Dissertation, The Ohio State University.
- Girei, AA. Kigbu, AA. And Boyi, A. 2019. Gender Role of Women in Fisheries Operations in the Fishing Communities of Doma Dam of Doma Local government area of Nasarawa State, Nigeria. *Asian Journal of Agricultural Extension, Economics and Sociology*, 29(1): 1-9.
- Harper, S., D. Zeller, M. Hauzer, D. Pauly, R. Sumaila, (2013). Women and fisheries: Contribution to food security and local economies. *Marine Policy* 39: 56-63
- Ismail, Maimunah; Rasdi, Roziah Mohd; Jamal, Akhmal Nadirah Abd (2011). Gender empowerment measure in political achievement in selected developed and developing countries. *Gender in Management: An International Journal* 26(5): 380-392.
- Jobpaul, KD. and Madhulatha, G. 2012. A case study of economic empowerment fisher women in Nellore district of Andhra Pradesh. *International Journal of Commerce and Business Management*, 5(2): 292-5.
- Katre, Ojha S.N. and Sharma, A. Alternative Livelihood Opportunities for Fishers of Bargi Reservoir, Madhya Pradesh. Unpublished Research Paper 2021. ICAR-CIFE, Mumbai.

REFERENCES

- Keno, B. and Zewdie, A., 2016. Socio-economic and profitability of fisheries enterprises: the case of Fincha Amarti Nashe reservoir of Oromia state, Horo Guduru Wollega zone, Ethiopia. In *Fifth African Higher Education Week and RUFORUM Biennial Conference 2016, " Linking agricultural universities with civil society, the private sector, governments and other stakeholders in support of agricultural development in Africa"*, Cape Town, South Africa, 17-21 October 2016 (pp. 835-854). RUFORUM.
- Luna, A. 2014. Looking Beyond the Fisherwomen: A Case Study of Women's Empowerment in Marine Resource Management and Policy. Masters Dissertation, University of Washington.
- Medard, M. Sobo, F. Ngatunga, T. and Chirwa, S. 2002. Women and gender participation in the fisheries sector in Lake Victoria. WorldFish Repository.
- Meetei, W.T., Saha, B. and Pal, P., 2016. Participation of women in fisheries: A study on gender issues in Manipur, India. *International Journal of Bio-resource and Stress Management*, 7(4), pp.906-914.
- Nega, Endale Haile. 2010. Participation of Women in Multipurpose Cooperatives in Gewane and Awash Fentale Woreda, Afar, Ethiopia. PhD diss, Mekelle University.
- Panigrahy, SR. and Vahoniya, D. 2016. Role played and constraints faced by fisher women in inland fish marketing in Anand district, Gujarat, India. *Journal of Crop and Weed*, 12(2): 79-81.

REFERENCES

PUSHP, A. and VERMA, R.V.A.K. 2017. Role of Women in Fisheries Sector in Veraval, Gujarat. Trends in Biosciences 10(40).

Rathod, R., Priyadarshi, S., Sharma, A., Velumani, T. and Ratre, D., Locating the Context of Gender in Fisheries Policies of India. https://www.genderaquafish.org/wp-content/uploads/2019/01/GOV_07_Rajiv-Rathod.pdf

Reiter, R. (1975). "Introduction," in Reiter R. (Ed.), Toward Anthropology of Women, Monthly Press Review, New York, NY, pp. 11-19.

Ross-Smith, Ann and Huppatz, Kate (2010). Management, Women and Gender Capital. Gender, Work and Organization 17(5): 547-566

Shyam, SS. Antony, B. and Geetha, R. Women Empowerment and Fisheries Sector in Kerala.

Sreedhara, D. Women Empowerment and Cooperatives-A Comparative Study of General Cooperatives and Fisheries Cooperatives. SDM PG Centre for Management Studies and Research.

Torre, J. Hernandez, VA. Rivera-Melo, FF. Lopez, J. Espinosa-Romero, MJ. 2019. Women's Empowerment, Collective Actions, and Sustainable Fisheries: Lessons from Mexico. Maritime Studies, 18(3): 373-84.

Torell, Elin and James Tobey (2012). Enterprise Strategies for Coastal and Marine Conservation: A Review of Best Practices and Lessons Learned. Coastal Resources Center, University of Rhode Island.

Wiris, D. (1986). Reinterpreting the gender gap. Public Opinion Quarterly 50: 316-330.

World Bank (2012a). Hidden Harvest: The Global Contribution of Capture Fisheries. Report No. 66469-GLB. New York, NY.