Fishers of Stanley Reservoir: An Insight into their Livelihood

S. Agnes Daney Angela[1], Sheela Immanuel[2] and P.S. Ananthan[3]

1. Ph. D Student, 2. Principal Scientist, 3. Scientist (S.S), CIFE, Mumbai

Corresponding author: agnesdanyangela@gmail.com

ABSTRACT

Reservoirs assume specific importance in highly populous developing countries, such as India. Fisheries activities in reservoirs often play a significant role in the livelihood of rural communities. In this context, a study was undertaken in Salem district of Tamil Nadu to understand the livelihood of the inland capture fishers in the largest reservoir in South India, the Stanley reservoir. Data from five villages comprising 150 respondents were collected for the study. Majority (58%) of the fishers belonged to the age group of above 45 years. More than fifty per cent were illiterates. Majority (93.33%) of the fishers had small and nuclear family. More than ninety per cent were found to have their own house. All of them watched television regularly. Extension agency contact was mostly limited to local officers. All had membership in co-operative society. Women of the fishers' family were found to accompany them during fishing but were not involved in making decisions regarding fishing. More than 70 per cent were solely depended on fishing for their livelihood. Majority (68.66%) were in the annual income range of Rs. 50,001 to Rs.70,000. Saving habit among the fishers was less. Education was positively related to type of house, mass media and communication exposure and movable assets possession whereas it was negatively related to fishing experience. Social participation was found to be positively related to occupation.

Key words: *Reservoir; Livelihood; Fishers;*

Fisheries form an important source of food, occupation and recreation for people around the world. It has been recognized as the source of livelihood for a larger section of economically backward population of the country. Tamilnadu is one of the states in India blessed with marine and inland fishery resources. The inland fishers population is about 2.17 lakhs. The fish production from the inland sector during 2008-09 was 1.66 lakh tonnes (*DoF, 2010-11*). Stanley reservoir with a water spread area of 15,346 ha is the largest reservoir in South India. The fishery resource of Stanley reservoir is under the control of Department of Fisheries and is being exploited by licensing system. There are around 2000 licensed fishers who depend upon the reservoir for their livelihood. Livelihood analysis can be very useful for showing how an intervention fits with livelihood strategies and how people's livelihoods are being enhanced or constrained. On this basis, recommendations for improvement in the intervention can invariably be made. (*Ashley, 2000*).For the proper management of the resources, it is necessary to understand the livelihood of the immediate resource-users. With this background, the present study is aimed at examining the social, cultural, economic and livelihood status of fishers of the Stanley reservoir in Salem district of Tamilnadu.

METHODOLOGY

Stanley reservoir in Salem district of Tamilnadu state in India was selected for the study. It comes under the Mettur taluk of Salem district which has two blocks namely Meicheri and Kolathur. Two villages namely Keeraikaranoor and Kunandiyoor were selected from Meicheri and three villages namely Kottaiyoor, Kulaveeranpatty and Madaiyankuttai were selected from Kolathur. There are 2000 licensed fishers in the Stanley reservoir. There are about 35 to 40 villages around the reservoir. The first three villages (Keeraikaranoor, Kunandiyoor and Kottaiyoor) were selected based on the population of fishers. The other two villages were selected to have representative samples from the original fishing community. For the purpose of household surveys, 30 respondents were selected from each village such that total 150 respondents were selected for the study through random sampling

technique. Per cent age analysis was done to make simple comparison. Proximity matrix was used to show the different relations that exist between the variables. Corrections to percentage were made to two decimals.

RESULTS AND DISCUSSION

Profile characteristics of fishers: From the Table 1 it could be observed that 58 per cent of respondents belonged to old age group and this may be attributed to their years of experience and the lack of interest in shifting the occupation. More number of illiterates (54%) and people with low education are involved in fishing.

Table 1. Profile characteristics of fishers (N = 150)

Category	No.	%
Age (in years)		
Up to 25	1	0.66
26-35	22	14.66
36-45	40	26.66
Above 45	87	58
Education		
Illiterate	81	54
Primary	48	32
Middle	-	-
High school	20	13.33
Higher secondary	1	0.66
Collegiate	-	-
Gender		
Male	141	94
Female	9	6
Fishing experience (in years)		
Up to 10	30	20
11-20	52	34.66
Above 20	68	45.33
Caste		
Vanniyar	68	45.33
Parvadharajakulam	60	40
Seveiyar	22	14.66
Religion		
Hinduism	126	84
Christianity	24	16

This may be due to the fact that people with moderate level of education tend to be involved in other occupations which require educational background. According to *Joadder (2008)* the tendency of fishermen is to earn more money. For this reason they are deprived from school in the early age. The sample respondent population was dominated by males (94%). More number of experienced fishers were involved in fishing in the reservoir as fishing in Stanley reservoir is an age old practice (45%) dating back to 1934. All the three castes namely Vanniyar, Parvadharajakulam and Seveiyar are coming under Other Backward Classes indicating caste-wise homogeneity. Majority (84%) of the respondents were Hindus.

Table 2. Socio-cultural parameters (N = 150)

Category	No.	%
Family type		
Nuclear	143	95.33
joint	7	4.66
Family size		
Small family	140	93.33
Big family	10	6.66
Housing pattern		
Type of house		
Hut	42	28
Tiled	68	45.33
Terrace	40	26.66
Ownership		
Rented	10	6.66
Leased	-	-
Owned	140	93.33
Area of house		
Small (upto 2 cents)	86	57.33
Big (above 2 cents)	64	42.66
Number of rooms		
One	22	14.66
Two	63	42
Three	48	32
Four	16	10.66
More than four	1	0.66
Sanitation facility		
In the house	18	12
Open defecation	132	88
Source of drinking water		
Municipality water	30	20
Borewell	97	64.66
Public tap	23	15.33
Fuel used for cooking		
LPG	67	44.66
Firewood	83	55.33
Place of cooking		
Separate room	68	45.33
Inside living room	7	4.66
Open space	75	50

Socio-cultural parameters: Table 2 reveals that the study area was dominated by nuclear families (95.33%) consisting of less than five members. Housing pattern is one of the most important indicators used to assess

the well being of any community or village. A large number of the respondents possessing own houses (93.33%) indicates the well-being of the fishermen community. A large number (45.33%) of respondents were found to be residing in tiled houses. The type of sanitation practiced by a large number of respondents (88%) was open defecation which may be due to the nature of the occupation.The results further indicates that most (57.33%) of the fishers have small houses having two rooms (42%) followed by 64 per cent of the respondents using borewell water for their consumption. However it was also indicated that nearly 55.0 per cent of the respondents use firewood as fuel for cooking purposes as compared to 44 per cent respondents using LPG gas. It was further revealed that cooking was performed in open space by 50 per cent of the respondents 45 per cent respondents choose place of cooking in a separate rooms.

Table 3. Women in decision-making and implementation (N=141)

Activities	Initiates	Decides	Implements
Money Mgt.	63.33(95)	19.33(29)	0
Children's Edu.	77.33(115)	46(69)	27.33(41)
Marriage	73.33(110)	70(105	22(33)
Health	83.33(125)	18(27)	13.33(20)
Social actions	0	0	0
Fishing	0	0	0
Fish selling	0	0	0
House Mgt.	90(135)	82(123)	75.33(113)

Role of women: Table 3 shows that women play a major role in almost all the fisher families. They take lead role in the management of household. During fishing, women help men by handling the coracle while shooting and hauling of the nets. A license holder can register a person's name as helper and usually fishers register their wife's name as helper. Some of the fishers register their mother's name as helper. Though a few SHGs for women were known to exist, they are currently not functional and social participation of women is very limited. Only a very few women involve in other kinds of job such as tailoring. As the fishes caught were usually given to the co-operative society, their role in fish selling is very limited.

Economics and livelihood parameters: Majority of the respondents (72.00%) involving in fishing alone indicated that fishing provides them a reasonable income and thus can be relied upon as an occupation (Table 4). A total of 85.66 per cent had an income range of Rs 40,001 to Rs 70,000. This income includes both the income from fishing as well as others. Fishers were not found to posses any land other than their place of living. Majority (89%) of the fishers were found to be dependent on money lenders for credit. The habit of saving was found only in 13 per cent of the respondents and the savings were mostly used for purchase of fishing craft and gear. Similar results were also reprted by *Rahman et al (2002)* and *Begum (2006)*.

Table 4. Economics and livelihood parameters (N=150)

Category	No.	%
Occupation		
Fishing only	108	72.00
Fishing + Agricultural labourer	40	26.66
Fishing + Others	02	01.33
Average Annual income (in Rupees)		
Upto 40,000	04	02.66
40,001-50,000	26	17.33
50,001-60,000	58	38.66
60,001-70,000	45	30.00
Above 70,000	17	11.33
Assets possession		
Communication assets		
Telephone	01	0.66
Mobile phone	133	88.66
Radio	02	1.33
Television	148	98.66
Source of credit		
Friends and Relatives	17	11.33
Money lender	133	88.66
Cooperative	-	-
Banks	-	-
Others	-	-
Savings		
Yes	20	13.33
No	130	86.66

Interrelationship between the characteristics of the fishers: Education was positively related to type of house, mass media and communication exposure and movable assets possession whereas fishing experience was negatively related to education. This may be because the experienced fishermen, that is, the older generation was not educated in comparison with the younger age group fishers. House type, was positively correlated with mass media and communication exposure and household and communication assets possession whereas it was negatively related to the experience of the fishers. This may be because, the less experienced fishermen, who are mostly the sons of fishers, tend to stay in a relatively better type of house,

Table 5. Interrelationship between the characteristics of the fishers (N=150)

	A	B	C	D	E	F	G	H	I	J
A	1									
B	-0.45**	1								
C	-0.168*	0.135*	1							
D	-0.019	-0.04	-0.063	1						
E	-0.341**	0.58**	0.194**	-0.045	1					
F	-0.218**	0.191**	0.19**	0.055	0.615**	1				
G	0.085	-0.068	0.003	-0.026	-0.108	-0.179*	1			
H	0.224**	0.164*	0.123	0.007	-0.051	-0.07	0.149*	1		
I	0.143*	0.111	0.126	0.076	0.02	0.045	-0.011	0.489**	1	
J	0.629**	-0.263**	-0.193**	-0.103	-0.308**	-0.2**	-0.031	-0.046	0.041	1

*Significant at 5% **Significant at 1%

Note: A-*Age* , B-*Education*, C-*Type of house*, D-*Extension contact frequency*, E-*Mass media and communication exposure*, F-*Household and communication asset possession*, G-*Social Participation*, H-*Occupation*, I-*Income*, J-*Fishing experience*

when they separate from their parents and enter into marital life forming a nuclear family. With respect to extension agency contact, there existed a relationship with other variables, but it was not significant. Fishers possessing movable assets like television and cell phones are prone to mass media and communication exposure. However, the experience of fishers was found to be negatively related to mass media and communication exposure. This may be because of their lack of interest or their inability to handle advanced gadgets. Household and communication assets possession was negatively related to social participation and fishing experience of the fishers. Social participation was found to be positively related to occupation. Occupation was positively related to income. When the fishers are involved in more than one occupation, it is quite natural that it will be adding to their income.

CONCLUSION

Fishers should be made aware of the institutional loan to meet their credit requirements. They should be encouraged to involve in saving schemes. Financial assistance shall be provided for buying craft and gears. Women should be encouraged and assisted in forming operational SHGs. The resource users and their livelihood should be clearly understood and they should be allowed to participate in the decisions taken with respect to conservation and management of the resource. As inland fishers are the backbone of freshwater fisheries, greater attention is to be paid to their socio-economic amelioration. They have to be provided with better living conditions.

Paper received on : February 04, 2012
Accepted on : May 19, 2012

REFERENCES

Department of Fisheries, (2010-2011). Policy note, Tamil Nadu state fisheries department.

Begum. S.Suja (2006). Socio-economic condition of inland fishermen - A case study of Kerela. Ph.D. thesis (unpub.). Mahatma Gandhi University, Kottaiyam.

Ashley, Caroline (2000). Applying livelihood approaches to Natural Resource Management Initiatives: Experiences in Namibia and Kenya, Sustainable livelihoods, Working Paper 134, Overseas Development Institute, London.

Joadder, A. R. (2008). Socio-economic condition of fishermen of the 'Mail Beel' under Mohanpur Uppazila of Rajshahi district in Bangladesh. *Research Journal of Biological Sciences*, **3** (10): 1178-1181.

Rahman et al., (2002). Socioeconomic features of a traditional fishing community beside the old Brahmaputra river, Mymensingh, Bangladesh. *Asian Fisheries Science*, **15**: 371-386.

• • • • •