



## International Journal of Sociology and Humanities

www.sociologyjournal.net

Online ISSN: 2664-8687, Print ISSN: 2664-8679

Received: 30-05-2021; Accepted: 13-06-2021; Published: 27-06-2021

Volume 3, Issue 1, 2021, Page No. 22-26

---

### Socio-economic status and chronic kidney disease problems among the fisher community in Uvari coastal panchayat of Tirunelveli district

S W P Prabakaran

Assistant Professor, Department of Sociology, Manonmanium Sundaranar University, Tirunelveli, Tamil Nadu, India

---

#### Abstract

This Paper attempts to analyse the impact of Chronic Kidney Disease among the fisher community and also the level and extent of toll on the family income and Livelihood of Fisher community in the Uvari coastal Panchayat of Tirunelveli Districts.

The major objectives of the study include (i) to highlight the socio-demographic profile of the fisher community in Uvari Panchayat. (ii) To examine the type of factors responsible for kidney diseases by the fishermen's family. (iii) To understand what level the kidney diseases affect the family income and National income. (iv) to assess what type of precaution should be taken to prolong their Healthy life as well as life span.

The study covers a sample of 225 respondents in Uvari Panchayat of Rathapuram Block Union of Tirunelveli District. The 225 respondents are above 1.5 mg/dl Urea-Creatinine Patients. Snow-ball sampling technique was used to indentify the respondents. They were approached through various sources of Christian missionary Hospital, Private hospital Nurses, patient to patient conduct and Community Political leaders.

Out of 225 respondents, over two-fourth (57 %) of the family heads take three to five times dialysis treatment per month. And nearly one fifty of the women respondents were affected by kidney diseases. Of the samples nearly one-tenth of the respondents' childrens were affected and taking treatment. Over two-third (72 %) of the respondents spend Rs.500-1000/- per dialysis treatment, monthly Rs. 5,000 to 6,000/ rupees spend for their dialysis.

The Fishing Community undergo treatment under Chief Minister's Health Schemes. In addition to that, they have to shell out Extra expenses as mentioned above. For the last three years more than 54 fishermen died owing to Kidney failures. There is no Government and private Kidney hospital in and around 75 kms. Most of the people urge to establish Government Neurology/Nephrology Hospital in Uvari and costal panchayat. The Epidemiological survey (including case enrolment and Co-hurt Studies) should be conducted in Uvari panchayat.

**Keywords:** chronic kidney disease, fishermen, urea-creatinine, dialysis treatment, epidemiological survey

---

#### Introduction

"Fisheries" play a vital role in ensuring the livelihood of a large number of people belonging to the economically weaker sections of the population of the State. It is identified as a powerful tool stimulating growth of a number of subsidiary industries and is a source of health and nutrition food. The world second marine ecosystem having Bay of Bengal on the East, flanked by the Indian ocean and the Arabian Sea on the South and West, with 1,076 km long coastline, contributes 12.62% of the country's marine fish production. The fresh/brackish water ecosystems offer a good scope as alternative livelihood for the rural poor. Besides, fisheries sector generates significant foreign exchange earnings and also plays a pivotal role in the State and National economy. According to 2011 census India's total population is 1,210,854,977, of which 5,755,233 people are fishermen. Total population of Tamil Nadu as per 2011 census is 72,147,030 of which fisher folk population comprises 80,2912, of which families make 19,2697. Total Population of Tirunelveli district is 30,72,880 of which 6,132 are fisher man families and 24639 are

fisher folk population. (Government of India, Ministry of Agriculture, Dairying and Fisheries Department, New Delhi. 2011) In 2002, there were 38 million commercial and subsistence fishermen and fish farmers all over the world. Of this total, 74 per cent were engaged in capture fisheries and 26 percent in aquaculture. The world total fishery production of 133 million, tonnes equated to an average productivity of 3.5 tonnes per person. By 2006, the number of world fishers increased to 43.5 million and the total fishery production was 143.6 million, tonnes with an average productivity of 3.3 tonnes per person (FAO, 2011). Fish catching in coastal area is not an easy job, (i) It is related to physical Strength and boldness, push and pull the boats in the sea, fish nets with fishes in the seas, (ii) to swim in in-depth seas, confront cyclone, whirl wind, and heavy rain, (iv) calculative mind-set and management capacity is necessary to cope with co-workers. Knowledge of the availability of the fish identification of the location and how to exploit fish-catch. Returning home safely so on and so forth are essentials. (vi).

Sometimes, they lose their lives owing to shark attacks and damage of the boats. Above all, awareness of the sea-current is imperative.

### Study Area

The data used in this article was collected during the February – April 2019. The Uvari coastal panchayat is located at about 685 kms, South-east part of Chennai, capital of Tamil Nadu state, which is 75 km from Tirunelveli district and 48 km from Kanyakumari. It has a Population of 5,694 (comprising 2,966 males and 2,728 females), 9 wards, total Families 1680, according to 2011 census. But the community leader and Panchayat leader have given 10,000 as the population figure.

Two fisher Co-operative unions are functioning in Uvari panchayat. One is for males another one is for females. Male society includes 3800 male members, and the female society consists of 1600 members. Each member contributes Rs.2000 for life member of the society. They are getting Central and State assistance, for the development of occupational purpose. 60 days ban on fishing Benefits of Rs 10,000 through NEFT transaction is adhered to. Uvari is one of the Tourist places in south Tamil Nadu, The investigator undertook one day picnic he witnessed the frequent wailing of Ambulance siren shunting in the village. When the investigator interviewed they confess to the prevalence of kidney problems failures. These in turn hinder them from going to fishing. Many fishermen succumb to the kidney failures and consequent deaths. So it goes without saying the researcher is motivated to study on this.

**Table 1:** Death cases- last three years by kidney diseases in uvari panchayat. 2019-2020.

Years	Sex- wise Death Cases			Total
	Male	Female	Children	
2016-2017	9	5	3	17
2017-2018	13	2	2	17
2018-2019	7	2	2	11
Total	29	9	7	45

**Source:** Roman Catholic Missionary's Cemetery Records. 2019-2020.Uvari.

The study (Table: 1) reveals that, for the last three years more than 45 fishermen died due to kidney diseases and the present report was collected from the R.C. Missionary's Cemetery Records. They are not aware of life insurance and death insurance. Very few patients are maintaining the death-insurance and life insurance. They have got only Chief Minister's Medical benefit schemes. Some of the patients' bodies were buried without Medical Certificates through the witness of Community leader, Panchayat president, Religious office bearers and relatives. Out of 45 death cases, 29 were males whereas 9 were females and the remaining 7 were children below 18 years.

**Table 2:** UrEa creatin INE patients' reports in uvari panchayat. 2019-2020.

Sex	Age-Wise Urea Creatinine Patient						Total
	0-19	20-29	30-39	40-49	50-59	60-69	
Male	16	15	21	39	41	26	158
Female	5	6	15	24	13	4	67
Total	21	21	36	63	54	30	225

**Source:** World Kidney Days Disease Camp's Report By: S.T. Joseph's Hospital & Private Kidney care Centre, Palayamkottai.

The study (Table: 2), disclose that, the Urea Creatinine Patients list, (above 1 and 1.5 mg/dl). Besides, the present records were collected from the Private and missionary hospital Uvari and Palayamkottai. More than 500 fisher community people participated on April 7<sup>th</sup> 2019 in the World Health Day free Medical Camp. The free medical camp was conducted by missionary and private hospital. Out of 225 Patients, 158 are male fishermen, whereas 67 are female fisherwomen (Traders). Of the total, the potential age group of 20-49 are 120 persons and below 19 age group are 21 children and above 50 age group are 84 persons have been affected by Kidney diseases. The samples were selected through the medical camp list.

### Methodology

A few studies were conducted in the area of fisher communities' Health Problems and related to basic needs of health facilities in certain parts of India. However, they are not in-depth and elaborate studies. Hence, by all means, it is relevant at present to study the occupational related disease among the fisher communities in sea areas. This study deals with chronic kidney disease problems among the fisher community in coastal areas in Tirunelveli District of Tamil Nadu. This panchayat was selected because for the last three years death cases is high and chronic kidney disease proportion is significantly high. In view of these observations the following objectives have been formulated carefully. (i) To highlight the socio-demographic profile of the fisher community in Uvari Panchayat. (ii) To examine the type of factors responsible for kidney diseases by the fishermen's family. (iii) To understand what level the kidney diseases affect the family income and National income. (iv) To assess what type of precaution should be taken to prolong their Healthy life as well as life span. The study covers a sample of 225 respondents in Uvari Panchayat of Rathapuram Block Union of Tirunelveli District. The 225 respondents are above 1- 1.5 mg/dl Urea-Creatinine Patients. Snow-ball sampling technique was used to identify the respondents. They were approached through various sources of Christian missionary Hospital, Private hospital Nurses, Patient to Patient conduct and Community Political leaders. An interview schedule method was employed to collect the necessary information from the respondents. The data collected included of the particulars regarding their socio-demographic background, reasons for disease, their level of knowledge about kidney disease, difficulties faced by them in the dialysis treatment. In addition to this, observation and Group discussion methods were also used to collect data. The data were analysed in the form of simple classifications. No statistical technique was attempted in view of the small size of sample.

### About the Sample

The study reveals that there are 225, fishermen patients are undergoing treatment in Private Kidney Hospital at Nagerkovil, far away from the uvari panchayat, there is no kidney hospital in and around area, only two general medical hospitals are running in uvari panchayat, one is run by Christian Missionary another one is Primary Health Centre is run by Government.

Out of 225 respondents, nearly one-fifth (18.50 %) of the female respondents are undergoing treatment in hospital whereas one-tenth nearly (9.30 %) of the children were identified and taking

precaution treatment in the Hospital. Then, remaining nearly three-fourth (70.22 %) of them are male fishermen. The study discloses that, over two-fourth (52.33 %) of the fisher folk belong to middle age group. Whereas over one-third (37.3%) of the fisher folk belong to old age group. Immanuel (2004) <sup>[5]</sup> has conducted the same study in Kerala and mentioned the same proportions are involved in the Marine fishing. After the age of 14, the fisher men train up their children to fish catching so the proportion of middle age groups are high in the fisher folk. It is found out that, over two-thirds (63.33 %) fishermen live in the Joint family and remaining nearly one-third (36.33 %) fishermen live in nuclear type family. In most of the houses widowed sister or married daughter are living together. The main reason is that some husbands died in the Tsunami or cyclone and illness. Second thing their husbands have gone to neighbouring states for fish catching. Shankar (2010) <sup>[11]</sup> also mentioned in his study disclosing that a great majority of the fisher folk had joint family. It is reported that, a great majority half (51.33 %) of the respondents have the primary level of education, followed by one-fourth (25.43 %) of the respondents know how to read and write, the remaining nearly one-fourth (23.19 %) of the respondents have the high school education. The Christian missionary has the Higher Secondary school in Uvari Panchayat, so automatically they have got the sufficient education.

The study shows that, two-thirds (60.25 %) of respondents earn Rs.16,000/- per month, the total annual income is Rs.1,92,000. but they come out with only half of the year income, since un-season or Cyclone problems. So their income is deemed only as Rs.96,000/- per year. The remaining over one-third (39.75 %) of the respondents earn Rs.20,000 per month, and the annual income is Rs.2,40,000/- they follow suit. Hence, they earn only Rs.1,20,000/- per year. The latter invest motor with fibre plastic boat and three to five fishnets and also have got the loan from the Uvari fisherman Society and Private bank also. Vichare's (2010) <sup>[14]</sup>, study also stand in favour for the present study, he had found out that only 17 per cent respondents from mechanized boat owners in Versova were found to be the owner cum worker fishers and in Satpati this number was found to quit high (57%). The study reveals that, one-fourth (25.63 %) of the respondents live in the Pucca Houses, whereas two-fourth (50.37%) of the respondents live in medium type of traditional houses and the remaining nearly one-fourth (24.00 %) fisher men live in Rented houses. Vichare (2010) <sup>[14]</sup> has mentioned in his study, that he had found out that majority of the respondents from the native male fish workers (75 per cent in Versova and 100 per cent in Satpati) were found to live in owned houses and remaining were live in rented houses.

**Table 3:** Respondents by types of occupation and number of times taking kidney dialysis.

Types of Occupation	Number of Times Undergo Dialysis Treatment					Total
	Weakly (Two-times)	Weakly (One-time)	Monthly Two-Times	Monthly One Time	Oral-Bills	
Marine Fishers	23 (15.23)	18 (11.92)	34 (22.51)	28 (18.54)	48 (31.78)	151 (100)
Traders	9 (18.75)	11 (22.91)	7 (14.58)	12 (25.00)	9 (18.75)	48 (100)
Service providers	4 (15.38)	6 (23.07)	5 (19.23)	6 (23.07)	5 (19.23)	26 (100)
Total	36 (16.00)	35 (15.55)	46 (20.44)	46 (20.44)	62 (27.55)	225 (100)

The reveals (table: 3) that, out of 225 respondents of fisher community, that a great majority of over two-third (61.11 %) of respondents are marine fishers, whereas one-fourth (21.33%) of the respondents are traders. Then a meagre proportion of one-tenth (11.55%) of the respondents are service people. The fisher community includes marine fishers, traders and service providers. The marine fishers include those involved daily fish catching and stay fish catching (three to seven days stay fish catching in the sea). Traders include those involved in buying in fish-Bid market selling nearest town. Service providers include casual labourers, cleaning and weaving the fish-net and loading and unloading fish-box in the minivan and mini Lorries. Of the sample one- third (31.55 %) of respondents undergo weekly two times and one time dialysis treatment. Whereas, two-fifth (40.88%) respondents undergo monthly two and one time of

dialysis treatment. Since, over one-fifth (27.55 %) of the respondent undergo the treatment by Tablets.

The fishing community undergoes treatment under Chief Minister's Health Medical Schemes. In addition to that, they have to shell out Extra expenses from the family income or borrow the money from the Bank and moneylenders/usurers.

The study discloses that (Table: 4), out of 225 samples, over one-third (31.55 %) respondents spend their money monthly Rs.4000-6000 for weekly one-two times for dialysis treatment. Whereas two-fifth (40.88 %) of the respondents spend monthly spend their money Rs 2000-3000 for monthly one-two times for dialysis treatment. The remaining nearly one-third (27.55 %) of the respondents spend their money monthly Rs.1500/- for internal tablets.

**Table 4:** Respondents by Types of Occupation and Dialysis Monthly Expenses

Types of Occupation	Dialysis Treatment Expenses Per-Month				Oral-Bills Rs.1500	Total
	Rs.6000 (weekly two times)	Rs.4000 (weekly one time)	Monthly 3000 (Monthly two-times)	Monthly Rs.2000 (monthly one time)		
Fishermen	23 (15.23)	18 (11.92)	34 (22.51)	28 (18.54)	48 (31.78)	151 (100)
Traders	9 (18.75)	11 (22.91)	7 (14.58)	12 (25.00)	9 (18.75)	48 (100)
Service providers	4 (15.38)	6 (23.07)	5 (19.23)	6 (23.07)	5 (19.23)	26 (100)
Total	36 (16.00)	35 (15.55)	46 (20.44)	46 (20.44)	62 (27.55)	225 (100)

**Note:** The Table reveals, Dialysis Treatment Expenses per-Month, Excluding CM's Medical contribution.

There is no Government and Private Kidney Care & Dialysis Centre in and around 75 Kms of Uvari Panchayat. Each and every patient spends their one time kidney dialysis Total expenses come around Excluding CM's Medical assistance Rs.1500, which includes travel expenses is Rs.700/- for To and fro. In addition they spends Rs.800/-for medicines, dialysis equipment and food for the treatment.

For the above expenses the fisher community families are pushed to poverty. In uvari coastal area 170 country plastic with motor boats and three Visai boats (high power engine with wooden boats) are using for fish catching. During the seasonal time (shrimp season) the country boat owners (sailor) appoint four persons for fish catching. They catch the fishes and types of fishes classified and fill in the 50 Plastic boxes, each box contains 65 kgs. They catch approximately 6000 Kgs they divide six parts,

Two part goes to the owner's share the remaining parts put in Uvri Fish Market for Bid. In uvari coastal area, mostly available fishes are 'ooli', 'seela', 'velameen', 'saalai' and 'nangarai', and some sea foods. The rates of the above items depend upon the Bids in the fish market. Sometimes they catch above 6000 Kg fishes, they add one more boat collect and carry the fishes, stay in the sea, sometimes, owing to unluck they return with empty boat. But they do not disclose the real incomes.

It is found out that, one-tenth of the fisher men are owners of the country boat, but presently their sons are operating the boats because of the above (Kidney problems/failures) disease. Some of them have given boats for lease to catch the fish. The remaining two-fourth the fisher men are Cooli labourers, but friendly co-workers in the fish catching during the past.

**Table 5:** Respondents by Types of Occupation and Reasons Kidney Disease.

Types of Occupation	Reasons For Kidney Disease				Total
	Hereditary Reason	Usage of Drinks & intoxicants	Frequent usage fish eating (Fresh and Dry Fishes)	Coastal Sand Quarries' Chemical	
Fishermen	13 (8.60)	34 (22.51)	27 (17.89)	77 (50.99)	151 (100)
Traders	7 (14.58)	7 (14.58)	13 (27.08)	21 (43.76)	48 (100)
Service providers	4 (15.38)	5 (19.23)	6 (23.07)	11 (42.31)	26 (100)
Total	24 (10.66)	46 (20.44)	46 (20.44)	109 (48.45)	225 (100)

The study (Table: 5) reveals that, out of 225 respondent, a great majority (48.45 %) of the fisher men have told that Sand quarries' chemicals are the main problems for the kidney disease. Whereas one-fourth (20.44 %) of the fishermen have answered that the food habits of frequent eating of Fresh and dry fish adds misery to kidney diseases. The same proportion of (20.44 %) of the respondents have reported that the consumption of drinks and intoxicants are main problems for kidney diseases. The remaining one-tenth (10.66 %) of the respondents have stated that heredity is the cause for kidney diseases.

In uvari coastal area in and around 20 Kms there are three sand quarries are functioning such as Ovari-Periyatalai-Manapadu. The Big Industry collecting Garnet and illuminate and other related minerals like, Zircon, Rutile, Sillimanite, Reucoxene. From the seashore sand. The Large scale industry extract the minerals to use the chemicals in the sand after that they dump the sand in the sea and in and around Uvri panchayat the chemicals spread in drinking water and Air. The people protest against the large scale industries. 50 per cent of the people have reported that sand quarries are the main problems for causing kidney diseases. Ansari and Matondkar (2014) <sup>[1]</sup> stand in supportive they mentioned in their study, in some of the coastal states of India it is a booming business of illegal activity. Sand mining has directly affected the physical processes and biological communities.

Of the sample, two-thirds (60.33 %) of the respondent having either chewing smokeless tobacco or drinking habits. (Prasad Pramod Rane and others, 2016) <sup>[9]</sup> they also supported for this study. From the Group discussion in the fishnet weaving and cleaning in Bid and meeting hall, they reported that.

They have been using liquor and chewing tobacco for three to four generation to unwind the stress at work places. (Both cleaning and weaving the fishnet and catching the fish in sea area). However, the fishermen do not concur with the above view that liquor and tobacco are the causes. Shahzeb Patoli and others

(2014) <sup>[8]</sup> mentioned in their articles, the low socioeconomic condition of fisherman population increases the consumption of tobacco for social status and occupational stress. Soni and Raut, (2012) they pointed out that Tobacco consumption is one of the risk factors for cardiovascular diseases (CVDs). Which is responsible for the highest global mortality. Then in addition, World health organisation. (2014) <sup>[15]</sup>. Pulmonary diseases associated with tobacco use include lung cancer and Chronic Obstructive Pulmonary Disease (COPD) which leads to respiratory crippling and premature death.

### Conclusion

Even though Tamil Nadu stood fourth all over India in the production of fisheries with 559,360 Metric tonnes. The Marine food exports fetch several crores of foreign exchange to our country and provide employment opportunities for people directly and indirectly. In the above contribution fishermen's part is 75 per cent. Hence, we should provide better Medical and environmental facilities to the fisher folks.

The Epidemiological survey (including case enrolments and Cohort studies) should be conducted in Uvari Panchayat. There is no Neurology/Nephrologist Hospital in Uvari Panchayat. Most of the people urge to establish Government Neurology Hospital in Uvari and Coastal panchayat to mitigate transport and medical expenses. The Government has to take necessary steps to prevent the dumping of extracted sand from the sand quarries in fisher folk areas.

### References

1. Ansari ZA, Matondkar SGP. Anthropogenic Activities including Pollution and Contamination of Coastal Marine Environment. *J. Ecophysiol Occup. Hlth*, 2014;14:71-78.

2. Bowen Robert E, Riley Cory. Socio-economic indicators and integrated coastal management. *Ocean & Coastal Management*,2003;46:299-312.
3. Creel Liz. Ripple Effects: Population and Coastal Regions. Population Reference Bureau, 2003, 1-8.
4. Devi Nongmaithem, Bijayalakshmi Ngangbam, Ajit Kumar. Socioeconomic conditions and cultural profile of the fishers in India-a review. *ISOR Journal of Agriculture and Veterinary Science*,2014;7:42-48.
5. Immanuel S. Linkage among research, extension and clientele systems in marine fisheries in Kerala, Unpub. M.Sc. (Agri) thesis, Annamalai University Tamil Nadu, 2005.
6. Mogalekar HS, Canciyal J, Patdia DS, Sudhan S. Marine and estuarine fish fauna of Tamil Nadu, India. *Proceedings of the International Academy of Ecology and Environmental Sciences*,2018;8:231-271.
7. Nirmale VH, Sonttkki BS, Birader RS, Metarand SY, Charatkar SK. Use of indigenous technical knowledge by coastal fisherfolk of Mumbai district in Maharashtra. *Indian Journal of Traditional Knowledge*,2007;6:375-382.
8. Patoli Shahzeb, Jabeen Nusrat, Tariq Masood, Raj Iqbal, Butt Atif. Socioeconomic Status and Smokeless Tobacco Consumption in Fishermen Community of a Coastal Area of Karachi. *Annals Abbasi Shaheed Hospital & Karachi Medical & Dental College journals*,2015;20:34-39.
9. Pramod Rane, Prasad, Narayandan, Prakash, Binu VS, Unnikrishnan Bhaskaran. Prevalence of Tobacco and Alcohol Consumption among Fishermen in Udupi Taluk, Karnataka, India: a Cross-Sectional Study. *Asian Pacific Journal of Cancer Prevention*,2016;17:1733-1736.
10. Rathakrishnan T, Ramasubramanian M, Anandaraja N, Suganthi N, Anitha S. Traditional Fishing practices followed by fisher folks of Tamil Nadu. *Indian Journal of Traditional Knowledge*,2009;8:543-547.
11. Shankar S. 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, 2010.
12. Tumwesigye Nazarius M, Atuyambe Lynn, Wanyenze Rhoda K, Kibira PS, Qing Li, Mangen Fred Wabrite *et al.* Alcohol Consumption and risky sexual behaviour in the fishing communities: evidence from two fish landing sites on Lake Victoria in Uganda. *Tumwesigye et al. BMC Public Health*, 2012, 1-11.
13. Uma MSG. Exports of Fisheries in India with Special reference to Tuticorin *IOSR Journal of Humanities and Social Science*,2016;21:33-36.
14. Vichare PS. A study on effect of migration on livelihood of coastal fishers in Maharashtra. Unpub. M.F.Sc. (thesis), Central Institute of Fisheries Education, Mumbai, 2010.
15. World Health Organisation. Global status report on alcohol and health 2014. World health organisation, 2014. Retrieved from [http://www.who.int/substance\\_abuse/publications/globalalcoholreport/msbgsurprofile.pdf](http://www.who.int/substance_abuse/publications/globalalcoholreport/msbgsurprofile.pdf).