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Full Length Research Article

Socio-economic Status of the Fishermen Community in Digha Coast, West Bengal, India

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Abstract

The socioeconomic status of the inhabitants in the Digha Coastal region is heavily reliant on marine fishing, which is one of the most important livelihood possibilities for residents of Digha coastal belt. The present study was conducted to analyze the socioeconomic situations of the Fishermen Community of Digha Coast. The information was collected from selected villages in the Digha Coastal region. A random sample of 430 respondents was analyzed. The survey method of questionnaire was employed to determine the socioeconomic situation of the Fishermen community. In this study, percentage analysis and cross tabulation were used. The findings and observations are the result of the interpretations made during the investigation. The result depicts that the out of 90 families (30%) are in above poverty line and the remaining are below the poverty line as per guide line of FAO. The current study will help to develop new economic opportunities and increase the resource base of coastal poor people.

***Key words*:** Socio-economic, Fishermen, Livelihood, Digha

The socioeconomic condition of people is the most powerful indicator of their lives [1-2], as it provides social, cultural, and economic characteristics. It is used to identify potential impacts of management decisions on stakeholders, which can help policymakers and decision-makers minimize negative outcomes and maximize positive outcomes for local resource owners and fishing communities. The fishing community is considered vulnerable in many ways, so a variety of studies on their socioeconomic status have been conducted in various parts of the world including India [3-8] with the goal of improving their livelihood status by identifying problems and constraints. The socioeconomic status of the inhabitants of Digha Coastal region is heavily reliant on marine fishing. It is one of the most important sources of income for residents of the Digha coastal belt. This process will increase income opportunities while also improving the resource base of the poor people of the Digha Coastal Belt. Fishing industry is related to the activities which is concerned with cultivating, processing, preserving, storing, transporting, marketing, or selling fish or its products. It is a type of occupation performed by people known as fishermen. This occupation is practiced on all seashores. Ambili [9] defined a fisherman as someone who makes a living primarily from fishing and related activities. Their work resulted in a supply of fish for human consumption, bait, and other purposes. This community is distinct in that it is geographically located on the coast, has its own way of life and culture, and shares the sea and the environment. Millions of people all over the world have made a living from fishing. Fishery is one of the oldest human occupations, and it also contributes to the employment, economy, and food supply of coastal areas. It is regarded as a critical source of employment that ensures the livelihood of the coastal population, and it plays an important role in the socioeconomic development of the fishermen community. The present study was designed to assess the socioeconomic status of the fishermen community on the Digha coast in order to improve the great economy generator sector with the findings of this research.

MATERIALS AND METHODS

The data were collected from three villages i.e., Purba Mukundopur, Jhugaria, Bahadurpur, Ramnagar –Block 1, Purba Midnapore district of West Bengal for a period of one year (February2022 to March2023). At the time of data collection, this village had 950 households. Out of these 950 households, 10%, or 95 households, were chosen for the study using a simple random sampling method. Despite effective efforts, data collection was only possible from 90 households. A random sample of 430 people was studied. For the purposes of this study, the head of each household was considered a

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respondent. The schedule was used to collect data from respondents via the interview method. The collected data were numerically tabulated and analyzed in Microsoft Excel using simple statistical methods (Version 2019). This study respondents are limited to three villages.

RESULTS AND DISCUSSION

Data on personal, socio-economic, communicational and situational characteristic of the respondents were collected for close examination.

Distribution of the respondents by their demographic variables

Age group

Out of all respondents, 32.79% are between the ages of 36 to 40, 21.39% are under the age of 30, 17.90% are between the ages of 41 to 45, 15.34% are between the ages of 31 to 35, 7.90% are between the ages of 46 to 50, and the final 4.65% are over the age of 51. It should be emphasized that the majority of respondents in the research area are within the 21–25 age range. Joshua [10] found that in tsunami-affected Nagapattinam and Kollam, 46.7% of fisherman were middle-aged, 42.5% young, and 10.8% old. Another study based on fishers at the Chandakhola Wetland in Dhubri, Assam [11] found that 52.5% of respondents were between the ages of 31 and 50, followed by those between the ages of 18 and 30, and the remainder were above 50. Kalita *et al*. (2015) [7] found that 49.3% of fisherman from Bekiriver, Barpeta, Assam were 31–40 years old and 23.91% were 41–50 years old. In Kanyakumari District, Tamil Nadu, India, mussel fishers are aged 40–50 (46%), 50–60 (24%), 30–40 (18%), below 30 (8%) and over 60 (4%) [12]. According to Ali *et al*. (2009) [13], 31-40 was the highest (50%) and 41-60 the lowest (10%). However, Saxena, 2014 [14] reported socio-economic status of fishers at upper lake Bhopal. The age groups were 1-20 (45%), 21-30 (29%), 31-40 (11%), 41-50 (6%), and above 50 (9%). Surprisingly, Kigbu *et al.* [15] found the largest percentage (60.6%) of 21-31-year old in Gidan Zayero, 39.9% in Tunga-Dauda, and 39.4% in unga-Nupawa. Kabir *et al*. [16] discovered that all fishermen in old Brahmaputra river in Mymensingh were between 31-40 years old (50%), 41-60 years old (10%).

Religion

The majority (72.22%) of responders are Hindu in total. The rest 22.22% of them are Muslims, with 4.44% of them being Christians. It should be emphasized that the majority of the respondents in the study area are Hindu. Hindu were the most dominant group and composed of 83% of total fishermen, while 17% of fishermen was Muslim [17].

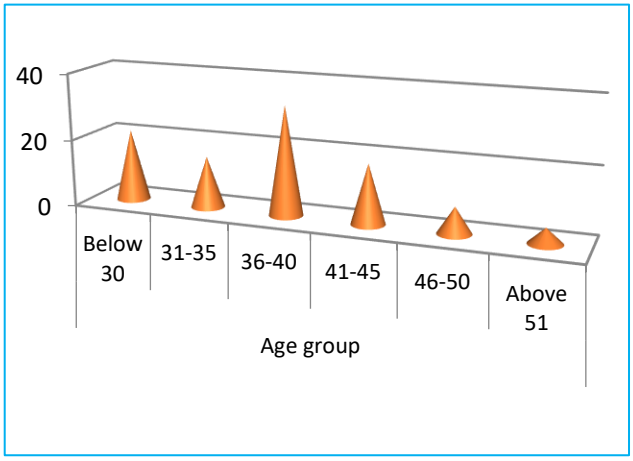

Fig 1 Age distribution of the fishermen in the study area

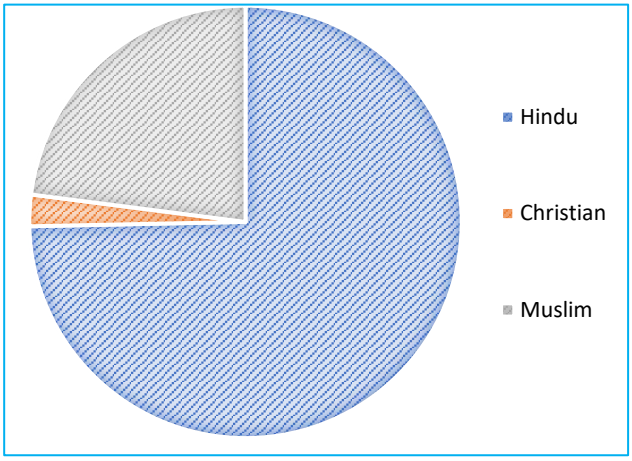

Fig 2 Religion status of the fishermen in the study area

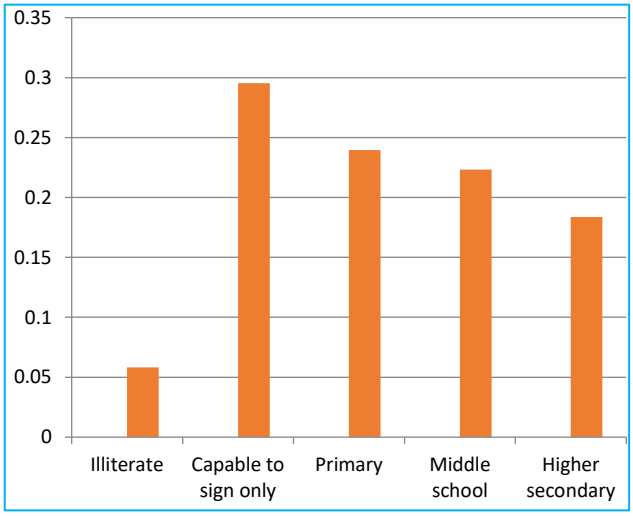

Fig 3 Educational status of the fishermen in the study area

Educational status

The data reveals that 23.95 percent of respondents have completed their primary education, 29.53 percent have completed only their ability to sign, 22.32 percent have completed their middle school education, 18.37 percent have completed their higher secondary education, and the remaining 5.81 percent are illiterate. The majority of responders to this study had only completed enough education to be able to sign.

Earlier studies found similarly low levels of education among the fishermen community in various parts of the country [6], [18-20]. According to Mohinigadhia *et al.* [20], 76.5% of the fishers were illiterates, followed by elementary (20%), secondary (2.5 percent), and college (6.9 percent). According to Shahjahan *et al.* [21], the majority of fisherman (63.3 percent) around the Jamuna River in Bangladesh were uneducated. Fishers have a similar illiteracy rate (63 percent) as the general population. Kalita *et al.* [7], investigated the socioeconomic position of fishermen in the Beki River. A total of 276 fisherman were interviewed, and it was discovered that approximately 72.10 percent were illiterate and 90.22 percent were married. Faruque and Ahsan [22], conducted a one-year survey to assess the living conditions of Hilsa fishermen on the Padma River in Bangladesh. They discovered that around 67.54 percent simply signed their name, while 16.62 percent were illiterate, 14.05 percent were primary, and 1.57 percent were secondary level of education.

Ownership of the house

A total of 72.22% of the respondents live in their own homes, 8.88% of them do so while renting, and the remaining 18.88% do so while leasing. It is evident that most respondents in the research area live in their own homes.

Family type and family size

A total of 83.33% of the respondents are from nuclear families, and the remaining 16.66% are from joint families. The majority of respondents in the study area live in nuclear households, it should be mentioned. Out of all respondents, 44.44% have large families (more than 7 members), 38.88% have medium-sized families (between 4 and 6 members), and the remaining 16.66% have small families (no more than 3 members). The majority of responders in the research area have large families, it should be highlighted. At Mymen Singh District, Ali *et al.* [13] reported (45%) a small family size of 4 - 5 members. Hossain *et al*. (2009) [23], confirmed 31- 40-year-old Bangladeshi fishers, with 5 - 8 members of a bigger family belonging to landless fishers. Faruque and Ahsan [22], found that the majority of Hilsa fishers on the River Padma in Bangladesh (57.14 to 78.26%) had a medium (4 - 6 member) family size, followed by 21.74 to 33.33% medium (1- 3) and 4.17- 14.29% big (7 - 9) family size.

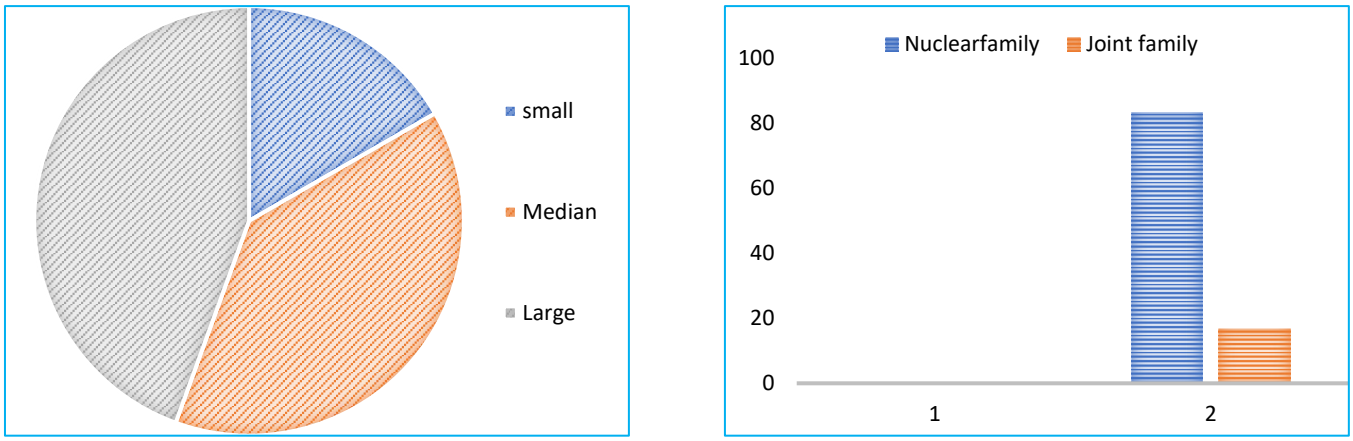

Fig 4 (a) Family type and (b)Family size of the fishermen in the study area

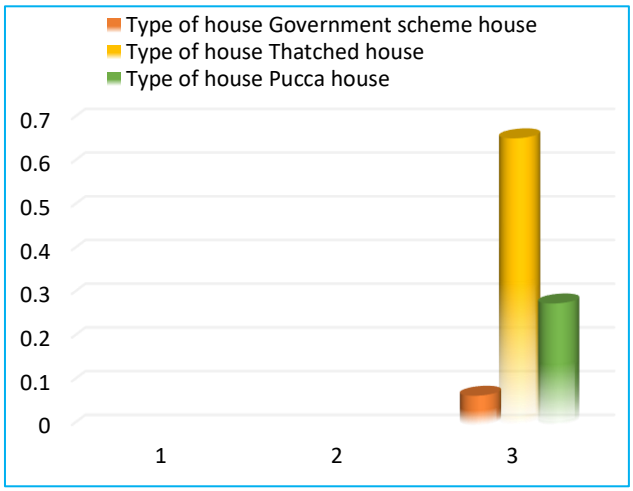

Fig 5 Type of house of the fishermen in the study area

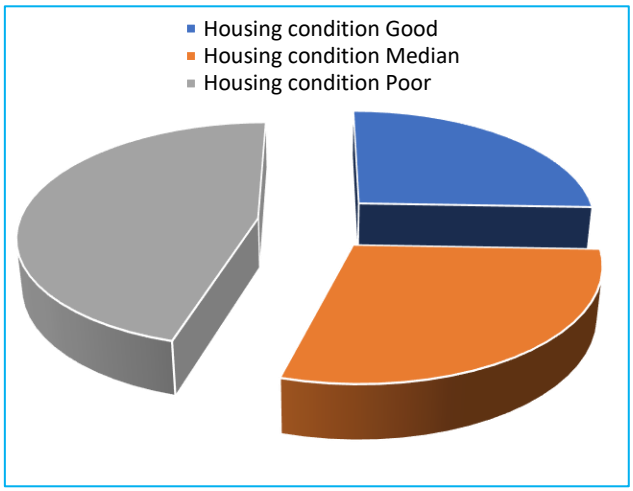

Fig 6 Housing condition of the fishermen in the study area

Type of house

Out of the total respondents, 6.66% live in government scheme homes, 65.55% live in thatched homes, and the remaining respondents (27.77%) live in pucca homes. It is evident that the majority of respondents in the research area reside in housing provided by the government.

Housing condition

The information demonstrates how respondents were distributed based on their living situation. Out of all respondents, only 25.55% had good housing conditions, 28.88% had median housing conditions, and 55.55% had poor housing conditions. At Basantapurbeel, Alam *et al*. [24], discovered that 82.22% of households were poor old kacha houses, 11.11% were medium, and 6.66% were in good living conditions. Similarly, Saxena [14] and Hossain *et al*. [23], found comparable socioeconomic status at upper Lake Bhopal, which was consistent with our findings.

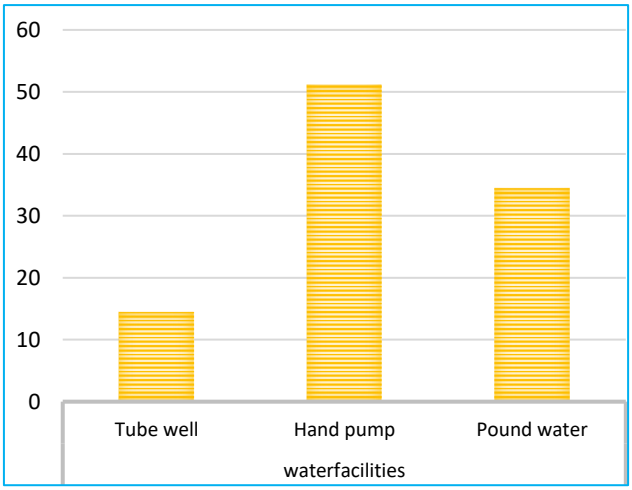

Fig 7 Water facilities of the fishermen in the study area

Health facilities

The information demonstrates the distribution of responses by healthcare facilities. Out of all respondents, 44.44% reported using a poor facility, 35.55% a good facility, and 20% a median facility. The houses of fishermen relied on the village doctors, and few of them used the services of professional doctors.

Water facilities

The information in the table shows how the respondents were distributed according to water facilities. Fishermen depended on tube well water for around 14.44% of their needs, hand pumps for 51.11%, and pounds of water for 34.44%.

Sanitary facilities

The data in the table show the distribution of respondents based on sanitary facilities.7.77% of sanitary facilities were excellent, 40% were average, and 52.22% were deplorable. Halim *et al.* [25], also found that 70% of Kafrikhal beel fishermen rarely used paka latrines. Ali *et al.* [13], validated fishers' sanitary conditions, indicating that 65% of toilets were kacha, 5% were semi-paka, and 30% relied on fields. Similarly, Kabir *et al.* [16], found that 30% of fishermen on the old Brahmaputra River lacked access to toilets.

Experience in fishing, income and its source

About the age of fishermen when they first start fishing. Out of all respondents, 31.39% began their traditional occupation, fishing, between the ages of 16 to 20 years; 8.60% began when they were under the age of 4 years; and 10% began when they were between the ages of 21 to 25. It is stated that the majority of fisherman began fishing at a young age, i.e., between the ages of 16 to 20 years, for a variety of reasons such as family responsibilities, peer group influence, lack of interest in studies, and so on. It demonstrates that they engage in fishing on their own occasion owing to their indifference in education, family obligations, and peer group influence, and to have a cheerful existence by making money and keeping it for their own needs. Income is critical for running families in order to fulfil day-to-day expenses such as schooling, marriage, and health care, as well as to purchase property. The fishermen's community requires cash to support their daily lives, health, and the education of their children. During the fish ban and rough season, boat owners can make do, but fishing laborers suffer greatly. Families of fishing laborers are obliged to borrow money or seek assistance from friends and relatives. Some fishermen could manage by doing petty jobs like running shops and getting involved in businesses like real estate. According to the data, the majority of respondents (37.77%) earned more than Rs10000 per month, while 62.22% earned less than Rs. 10000 per month. They were unable to handle their family expenses with their meagre salaries. They all have a secondary source of income in addition to their primary source of revenue from fishing. According to the data, 25.55% earned money through secondary sources such as fish vending and 25.55% earned money through money lending. It demonstrates that the fishermen were well conscious of the fact that they would not be able to earn a consistent living, and for their future, the fishermen were involved in other companies that provided some supplementary revenue.

Fig 8 Sanitary facilities of the fishermen in the study area

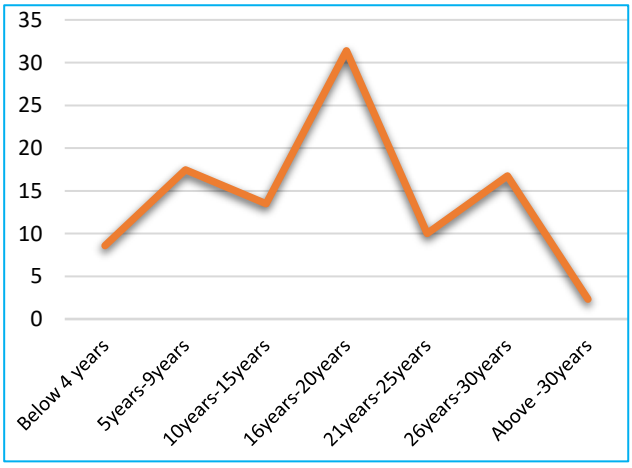

Fig 9 Experience in Fishing of the fishermen in the study area

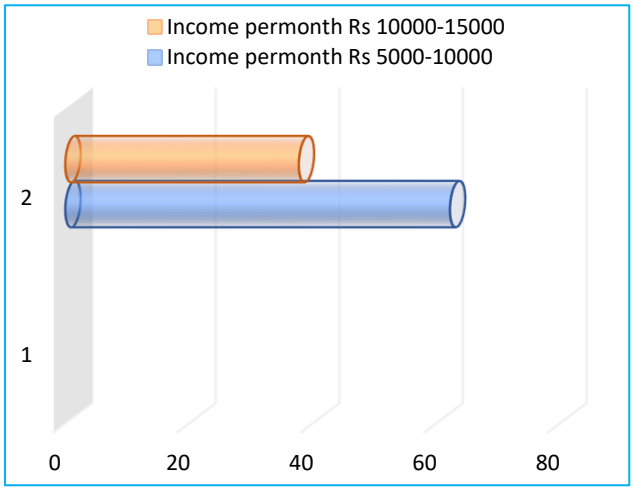

Fig 10 Monthly income of the fishermen in the study area

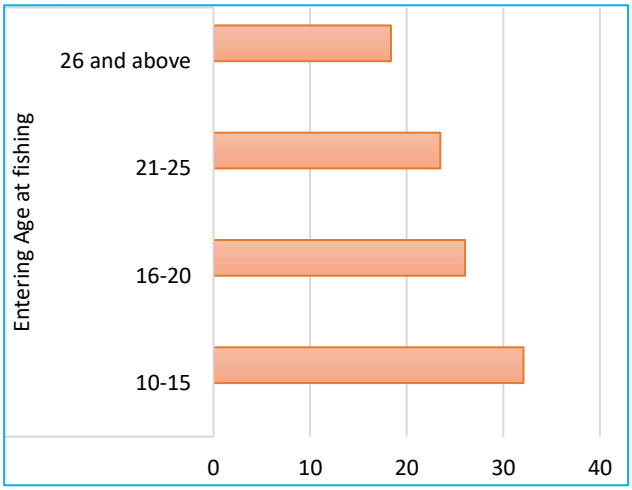

Fig 11 Age at entered in fishing of the fishermen in the study area

Out of all respondents, 72.22% stated that their income is insufficient to meet their household expenses, while the remaining 27.77% stated that their income is adequate to meet their household expenses. It should be mentioned that the majority of respondents in the research area stated that their income is insufficient to cover family expenses. Out of the total respondents, 68.83% reported borrowing money from money lenders to manage when income is insufficient, 5.81 % reported getting a hand loan from relatives/friends, and the remaining 25.34% reported mortgaging vessels to manage when income is insufficient. In this study, the majority of respondents rely solely on money lenders to meet their needs. According to Reza *et al*. [26], the majority (72%) of fishers earn between 15,000 and 25,000 Bangladesh taka (BDT) each year. The monthly income of fishermen in Chandakhola Wetland, Dhubri, Assam was low (Rs. 3000) for 35% of respondents, followed by Rs. 3001-4500 (20%) and Rs.4501-6000 (30%) [11].

Age at entered in fishing

Out of the total number of respondents, 32.09% were between the ages of 10 to15, 26.04% were between the ages of 16 to 20, 23.48% were between the ages of 21 to 25, and 18.37% were between the ages of 26 and above. It should be emphasized that the majority of responders began fishing between the ages of 10-15. Out of the total number of respondents, 70% do not own a boat, while the remaining 30% do. It should be highlighted that the vast majority of respondents in the research area do not possess a boat.

Basic facilities in their house

In terms of the possession of articles in the respondents' homes, the data shows that 44.44% of them have Radio and Television, 13.33% have Radio/Television and Mixie, 25.55% have Radio/T.V./Mixie and Grinder, and 16.66% have Radio, Television, Mixie, Grinder, and Refrigerator. It should be remembered that the majority of respondents only have radio and television. According to the data, 48.88% of respondents have electricity in their homes, 22.22% have electricity and drainage facilities, 20% have electricity, drainage, and a separate kitchen, and the remaining (8.88%) have electricity, drainage, a separate kitchen, and toilet facilities. It is possible to deduce that the majority of respondents have access to power in their homes. Sixty-three percent of total respondents own a motorcycle, 27.77% own a bicycle, and the remaining 8.88% own a car. It should be mentioned that the vast majority of respondents in the study area own a motorcycle.

Facing problems during fishing

Out of the total number of respondents, 23.80% have not encountered any problems while fishing, while the remaining 76.19% have encountered problems while fishing. Among them, 66.32% said they were compromising their problems while fishing, 19.38% said they had complained to the fishery association, and the remaining 14.24% said they ignored their problems.

Savings and place of saving

Out of the total number of respondents, 36.04% do not have a saving habit, while the remaining 63.95% do. In terms of savings location, 43.25% of respondents save their money in Nationalized banks, 20.46% save their money in the form of monthly chits, and the remaining 36.27% save their money in the form of gold saving schemes at Jewellery shops. It is worth noting that the vast majority of respondents in the research area save their money in nationalized banks.

Alcoholic drinking habit

40.23% of respondents overall do not have an alcoholic drinking habit, whereas 59.76% of respondents do. 44.74% of them drink every day, 29.18% drink once a week, 17.50% drink twice a week, and the remaining 7.3% drink infrequently. It should be mentioned that the bulk of study participants are regular drinkers of alcohol.

Usage of medicine

Out of all respondents, 59.06% are using allopathic medicine to treat their health issues, 6.27% are using folk medicine, 13.72% are using Auarbadhik medicine, and the remaining 20.93% are using homeopathic medicine. The majority of responders to this research use Allopathy treatment to treat their health issues. Present study indicates that majority of the fishermen was engaged in fishing for livelihood in the study area. The socio-economic status of the fishermen is very low and maximum number of fishermen were unable to fulfil their minimum requirement.

CONCLUSION

Fishing is one of the most significant sources of income for the residents of Digha coastal belt and its surrounding area, and it significantly affects their socioeconomic position. The capture fishery, which has undoubtedly created chance to improve day-to-day life maintenance of the fishing community in the study area, is a major factor in the livelihood process. The biggest obstacle for most fishermen in obtaining financing is their inability to provide collateral for the loan. Security is crucial, even while obtaining financial help via government banks. Because of the increased revenue and free time that will result from offering alternative work, the level of life for the family of fishermen will increase. Based on the study's findings, the following recommendations can be made to enhance the fishermen's socioeconomic situation. The government could provide them with low-interest loans and create other job opportunities during the off-season. It is necessary to establish a fisheries cooperative society. To improve the educational status of fishing villages, educational institutions should be established. Fishermen should be encouraged to sell their catch directly to markets rather than through intermediaries.

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