# Health and Hygiene Status of the Fisherwomen in the State of Goa

Yasmin Modassir\* and Azra Ansari\*

Dhempe College of Arts and Science, Miramar, Panaji, Goa (Received 8 April, 2011 Accepted 11 May, 2011)

ABSTRACT: Goa is one of the smallest states of India. It has a coast line of 105 km with 47 villages engaged in fishing operations. About 50% population of these villages shared by women. These women actively take part in various fishing activities, at time even in fishing along with men. This along with household chores leaves them with less time for themselves. This has resulted in poor health condition of women fisher folk in general. Gender preference is found to be a prevalent factor because of which multiple pregnancies are seen and rendering them anaemic. The women take no adequate, prenatal and postnatal care. The women lack nutritious food and are found under-nourished, in spite of being engaged in fishing activities which is a valuable source of protein and vitamins. The coastal villages in Goa lack proper sanitation, regular water supply, drainage system and proper toilet which result in poor hygiene condition. Lack of sanitation has been a major cause of outbreak of different diseases like typhoid, gastroenteritis, skin disease, malaria, encephalitis and intestinal infections.

#### INTRODUCTION

All over India, hundreds of women continue to be involved in fish-related activity, mainly to sustain their families. As the fisheries resource is increasingly threatened, the task of women gets more and more difficult. As a result of the fish workers' struggles, both locally and nationally, on the deep-sea fishing policy of the Government of India and the impact of intensive shrimp culture, the problems of the coastal communities have begun to receive attention from media and government.

In India, fisher folk are considered members of a backward community. In particular fisherwomen have a low status in the social hierarchy (Gadagkar, 1992). The present study was taken up to identify the problems of fisherwomen in relation to health and hygiene. In Goa, the fisheries sector plays an important role in the state economy with regards to socio-economic condition of small-scale fisher folk. The total number of fishermen of Goa coast is 20,000 out of these 30% are active fishermen, mostly involved in inshorefishery activities. Women form around 50% of this population. Small-scale fisheries is primarily rural based and contributes to nearly 65% of the total marine fish landings of India. In Goa it accounts to 51.2% of total fishery sector. Various subsidy schemes are introduced by the government in order to promote small scale fishery. However, their existence still depends on subsistence level which is indicative of poor health, hygiene and very poor socioeconomic status.

State of Goa is one of the smallest states in India and is located along the central west coast of India between the coordinate 14°54' to 15°48'N and 73°40' to 74°20'E. The coast line stretches to a length of about 105 km from East to West. The state has inland waterways covering 250 km

of area. The number of fishing talukas in the state is 8 which include 42 marine fishing villages and 47 inland fishing villages. A total of 30-35 villages are engaged in fishing operations. They are namely; Shivolim, Chapora, Terekhole, Anjuna, Baga, Chorao, Britona, Kumbarjua, Dona Paula, Agassim, St. Jacinto, Baina, Bogmalo, Velsao, Majorda, Colva, Benaulim, Varca, Carmona, Betul, Betim, etc. The total fisheries population is estimated to be 30,225, and out of which 11,944 form the active fishermen population. The number of fishing co-operative societies accounts to 6 with 889 members in the state of Goa. This is the first attempt to analyse the health status in fishermen community of Goa.

ISSN: 0975-1130

### MATERIALS AND METHODS

A general survey was conducted in the year 2004-2005 in 2 fishing villages of Goa namely; Britona and Dona Paula. During the survey all aspects related to health and hygiene conditions of the fisherwomen were considered. The target fisherwomen group was in the age group of 25-55 years. Various members of fishery cooperatives were also interviewed along with the fisher folk community so that an overall picture regarding the status of the fisherwomen could be drawn. A brief analysis of the fishing community as well as the status of the fisherwomen in the community was also done with respect to type of life, population distribution, religion, sex ratio, food habits, clothing, social customs, health and hygiene, conditions like sanitation facility, drinking water and medical facility. Other than this, infrastructure facilities available in the two villages were also studied in detail. The method described by Jelliffe (1966) was used as a model to study the nutritional deficiency signs of infant, children and also pregnant and lactating women.

## RESULTS AND DISCUSSION

#### Community background

The fisher folk community had a very low status in our Indian society. They have been categorized as lower caste. In spite of the fact that several fishing communities have accepted religions, which proclaim equality of man, even in these groups they still find themselves on the lowest rung of the social ladder. As a community they have been isolated and unorganized.

The fisher folk community in Goa can be categorized into two groups based on religion. The Catholic Kharvi and Kharvi / Gabit (Kshatriya Maratha). Catholic Kharvis are distributed along the coast of Goa with a major concentration in Salcete, Marmagoa and Tiswadi talukas. They speak Konkani and some of them can speak English and among the older generation, some can understand Portuguese language. The Kharvis embracing Hinduism call themselves as the Kshatriya Maratha Samaj. They are locally recognized as Gabits and regionally called Kharvis. They are mainly concentrated in Canacona, Salcete and Pernem Talukas of Goa. They use Konkani at home and Marathi outside as well as for correspondence.

Though considerable intercommunity difference exists in the community but as far as mode of fishing is concerned, a general pattern of horizontal and vertical structure in the community is very evident. Irrespective of the cast, the communities are divided into economic lines, such as ownership of nets, mechanized and non mechanized boats and canoes, thus the families are segregated on the basis of a set ownership. Adult and child literacy level was analyzed in the two villages and it was seen that majority of the older population were lacking even the basic primary education. The trend of sending children to schools has just started, as a result of which the younger generation was seen to have education at least up to the high school level. The other parameters like, types of houses, population distribution, religion, sex ratio, food habits, clothing, social customs, health and hygiene, adult literacy, electricity, etc, were studied and have been tabulated in the Table 1. It was seen that among the two villages Dona Paula had a better standard of life as compared to Britona. This could be attributed to the additional income got through at least one member of the family working the Gulf countries. Also its proximity to the capital town adds to the better lifestyle. It was observed that provision of toilets was found outside the house in most of the cases, but they were found to be poorly maintained. Though even small farmers were found fairly well equipped with luxury items like television, refrigerators, radio and furniture but general hygiene was found lacking. Certain pockets of the surveyed area have no electricity supply and hygienic conditions were found very low.

Table 1: Profile of study area.

| s. | No. | Parameters              | Case I                     | Case II                    |
|----|-----|-------------------------|----------------------------|----------------------------|
|    | 1.  | Name of village         | Britona                    | Doan Paula                 |
|    | 2.  | Types of house          | Tile/Coconut<br>leaf       | Tile/Coconut leaf          |
|    | 3.  | Population distribution | 70% Hindu<br>30% Catholic  | 10% Hindu<br>90% Catholic  |
|    | 4.  | Religion                | Hindu/Christian            | Hindu/Christian            |
|    | 5.  | Sex ratio               | 56% Female                 | 70% Female                 |
|    |     |                         | 40% Male                   | 30% Male                   |
|    | 6.  | Food habits             | Fish, curry, rice or kangi | Fish, curry, rice or kangi |
|    | 7.  | Clothing                | Sari                       | Dress                      |
|    | 8.  | Social customs          | According to<br>Hindu      | According to catholic      |
|    | 9.  | Health and<br>Hygiene   | Average                    | Average                    |
|    | 10. | Literacy                | Till 4th standard          | Primary level              |
|    | 11. | Electricity             |                            |                            |
|    | 12. | Transport               | Bus/Own vehicle            | Bus/Own vehicle            |
|    | 13. | Sanitation facility     | Not so good                | Average                    |
|    | 14. | Drinking water          | Tap/Well                   | Tap water                  |

### Status of the women in the fishing community

Goa fisheries status is given in Table 2.

Table 2: Fisheries statistics at a glance for the state of Goa.

| Coastal length                           | 104 kms      |
|--|--------------|
| Fishable Area up EEZ                     | 37,800 Sq.km |
| No. of fishing Talukas                   | 8            |
| No. of fishing villages (Inland)         | 42           |
| No. of fishing villages (Marine)         | 47           |
| Fisheries population                     | 30225        |
| Active Fisherman population              | 11944        |
| No. of mechanized boats                  | 1134         |
| No. of motorized country crafts          | 109          |
| No. of non motorized country crafts      | 1963         |
| Fish landing centres (jetties)           | 5            |
| Fish landing centres (ramp)              | 14           |
| Fisheries Co-operative society           | 6            |
| No. of members in Co-operative societies | 889          |

In Goa, only male members of the family are actively involved in fish catching activity and very rarely women go for collection of fish (Table 3). Since fishing operations are very strenuous, women are not involved in fishing activities, instead they actively participate in marketing and selling of fish or, in making nets (Nayak, 1992). As a woman's work within the house fetched no remuneration, they tend to supplement the family income by selling the catch in the market. The fisherwomen have to face problems at work in addition to the household responsibility of taking care of children, cooking and attending to the needs of

husbands resorting to drinking and wasting a sizable amount on the income (Vijayan and Kurian, 1993). As such women fisher folk community are experiencing great hardship. As it is a regular feature to find women engaged in fish trading waiting at the landing sites from the early hours of the day to collect the fish for selling in the market or they work as labourers at the landing places and get a small share of the catch as a bata system which they sell in the market. Most of the women were found engaged in door to door marketing of fish. While selling door to door they could cover 25-30 houses, which rendered them exhausted by the end of the day.

Table 3: Male-Female participation in activities related to fishing.

| S. A | lo. Activities             | Female (%) | Male (%) |
|------|----------------------------|------------|----------|
| 1    | Landing centre             | 35         | 65       |
| 2    | Local Marketing            | 95         | 5        |
| 3    | Dry fish workers           | 80         | 20       |
| 4    | Peeling workers            | 99.9       | 0.1      |
| 5    | Processing factory         | 70         | 30       |
| 6    | Fish loading and Unloading | 5          | 95       |
| 7    | Net mending                | 5          | 95       |

## Health status of the fisherwomen

The dietary pattern of women fisher folk of Goa is summarized in Table 4.

Table 4: Dietary pattern of the fisher folk of study area.

| S. | No. | Schedule      | Case I   | Case II                         |
|----|-----|---------------|--|---------------------------------|
|    |     |               | Britona  | Dona Paula                      |
|    | 1.  | Early morning | Tea with milk  | Black tea                       |
|    | 2.  | Breakfast     | Pao and curry  | Pao and curry                   |
|    | 3.  | Mid morning   | Batawada and tea   | Mirchi bani and tea             |
|    | 4.  | Lunch         | Fish, curry, rice<br>and sol water                               | Fish, curry, rice and sol water |
|    | 5.  | Evening       | Tea  | Tea                             |
|    | 6.  | Dinner        | Kanji and Fried<br>fish, green chilly<br>and tamarind<br>chutney | Kanji/Tapioca and fried fish    |

Nutrition forms a very important factor in determining the health of any population. It was found to be very poor during the survey and can be improved only through development efforts rather than expensive supplementary feeding programs which at the best can instigate malnutrition for someone but cannot be self generating. One of the most neglected aspects of the life in this sector was found to be education, especially awareness pertaining to nutrition and health education, therefore promotion of primary education. Balwadies, mid-day meals scheme may prove to be helpful. Appropriate nourishing diet must be explained and demonstrated to the families. Recipes of

weaning foods based on low cost, local food suitable for infants and children should be formulated. Medical and sanitation facilities must be augmented in the fishing villages with more health centres and measuring medical and paramedical staff to improve a healthy environment and eliminate and reduce births and death rate proportionately. No documentary data is available on dietary intake and nutritional status of the fisher folk community. Nutritional security is one of the most important factors at the household level. Food security is defined as the capacity of the household to procure stable and sustainable basket of edible 'dietary intake of each member of the household at all times in order to lead an active and healthy life. In individual households, food security is a daily concern of consumption and inter-household resource allocation.

During the survey it was found that the staple food of the Catholic Kharvis is rice and fish curry whereas use of pulses is little. The Kharvis are non-vegetarian and there is no restriction in eating pork and beef. The Gabits are also non-vegetarians. They eat fish, meat of goats, sheep, hare and fowl. Rice with fish curry is their daily diet whereas consumption of vegetables is not much. Coconut oil is used by them for frying and preparing curry. They use the kernel of dry coconut as the cooking medium. Use of pulses is also common. Among the fruits, they consume locally available banana, coconut and mango (Table 4) Milk and its products are not consumed regularly except by those who can afford them. Tea is taken in the morning. Both men and women from the two allies smoke bidi, cigarette and loose tobacco rolled in a leaf of the jackfruit tree. The males drink liquor on a daily basis and serve it on festive occasions but do not produce it at home. The women in Gabit Kharvi community do not take liquor but usually Gabit catholics do consume on festive occasions. A study on food consumption pattern of Britona fisher folk community showed that the consumption pattern could satisfy only 70% of the calories and 50% protein requirement, the pattern was due to lack of variety of food. Due to preference for male children among the community the fisherwomen have to undergo multiple delivers. The deliveries are normally conducted at home with the help of a traditional mid-wife, proper pre-natal and post natal care is not well provided, though the younger generation is slightly more health conscious and prefer hospitalization during the childbirth. The women lack nutritious food and are under nourished as a result the health is far from satisfactory. When local doctors were interviewed they revealed that in spite of being involved in fishing, which offers a valuable source of vitamin-A, a large number of fisherwomen suffer from the deficiency of this particular disease. The other common ailments seen are leuchorrea and malnutrition. In addition to this, presence of certain water-borne disease is also arising out of inadequate sanitation and lack of personal hygiene. The common disease affecting them is cholera, typhoid and diarrhoea. Also the life style of these fisherwomen adds to their ill health. These women's put in 7-10 hours a day for fishing and fish marketing related activities. Often they end up travelling for a major part of the day for selling fish door to door. Prolonged walking or the sitting position on folded legs in the market without any back support causes backaches, muscle fatigue, strain and musculo-skeletal disorders. On an average a fisherwoman's day being at around 5.00 am in the morning and ends at around 11.00 pm in the night, which leaves them with no time to care for themselves. A survey conducted in Kerala also revealed the same picture though the main diet of he fisherwomen comprise of fish, curry and rice, which provides only 75% of the required energy (Srinath, 1987). Commonly seen deficiency is mainly vitamin A and B complex vitamin deficiencies.

## Hygiene status of the fisherwoman

During the survey, sanitary facilities were conspicuous by their absence. Even the houses built in modern days were lacking much required toilet facility in the house itself especially in the village of Britona. Comparatively, Dona Paula area had better sanitary facilities which were available in some places however, they were poorly maintained. In Britona only 30% of the people have toilets inside their houses. The remaining 70% have to resort to other mean, whereas in Dona Paula all the houses have toilet facility. Common toilet facilities were also available which remain poorly maintained. In addition to this there is also the facility of Sulabh public toilet available for the people. The state at the fish landing centres as well as the fish markets was also not conducive for good health. The markets were seen lacking good toilet facilities. Due to which fisherwomen faced urinary problems in the long run. Availability of clean water through municipality water pipelines was found to be the major source of clean water for both the villages. In Britona around 40% of the houses did not have availability of tap water. These houses used water from the wells. But during the pre-monsoon period due to scarcity of water, most of the people had to use well water for their daily needs. Scarcity of water in the village resulted in increase of work for women as the collection of water was found to be the solely a woman's enterprise. The village of Dona Paula did not have any problem with regards to availability of water even in the pre-monsoon time. In addition to this, the problem of disposal of solid non-degradable waste also adds to the unhygienic conditions, especially in a small village like Britona. An effort was made to solve the problem by door to door collection, but this did not help for a long time and the problem remained as it was, leading to accumulation of garbage and causing health problems.

Recommendations for improvement of the condition of the fisher women

- \* Improvement in socio-economic condition of the small-scale fishermen may be achieved only by improving their economic condition, literacy and massive extensive services.
- \* An integrated approach is required through financial assistance soft loans, price support for its produce, storage and ware house facilities, marketing systems and transfer of technology
- \* With such an effort more is considerable scope fisheries which are vitally important for overall development of the fisheries of the country. The dichotomy between fisheries development and living conditions of fisher folk are responsible for continued miserable plight of traditional fishermen.
- \* Social and Community amenities such as house, medical facilities, sanitation and potable water should be provided at every fishing village.
- \* Education and training in advance fisheries may be imparted at University level and younger generation may be encouraged to take up fishing industry in a professional manner.
- \* Insurance or risk-bearing schemes may be introduced or formulated and put into practice for the welfare of the fishing labour.

## **ACKNOWLEDGEMENTS**

We are thankful to the Management of Dhempe College of Arts & Science, Goa for providing the facilities. We are also thankful to Department of Science and Technology, Govt of India for financial support for conducting major project under which the study was carried out. At the last we are also thankful Dr. Z. A. Ansari, Senior Scientist of National Institute of Oceanography, Dona Paula, for critically reading the manuscript for helping in the identification (of what).

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