

Livelihood Activities of Female Labor Engaged in Shrimp Farming in South-Western Region of Bangladesh

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ABSTRACT

The main focus of this study is the impact of shrimp culture on livelihood activities of female labor through income and occupation, food consumption, hazardous working environment and so on. Female labors involved in different activities of various shrimp sectors are characterized by diseases, poor income and nutritional status, low quality working environment, harassment and unsocial activities of mischievous persons, social negligence and poor living standard. Moreover, different shrimp-related activities adversely affect the health status of female labor through diseases. The hypothesis of this study is job categories in shrimp sectors deteriorate the health status of female labor in south-western regions of Bangladesh. It tested through Pearson's chi-square test with cross table analysis. The major objectives of this study are: to know the health status of female labors and occurrence of diseases that result from their occupation; to know the income level as it is associated with food consumption through which health status is maintained. In this study a more or less randomly collected respondents of 120 have been utilized for structured questionnaire survey. Beside, FGD (Focus Group Discussion) method has been used for in depth information. Based on the field data it can be seen that various diseases spread out among female labors through different modes of work, overtime work and unhealthy working environment. These disease occurrences also depend on nutritional status that is determined by income and food consumption of the respondents. Ultimately, poor economic condition leads toward vulnerable health situation. Generally, the female workers suffer from inadequacy of money at the time of treatment. In other sense, female labors face severe income discrimination and irregularity of payment in the work place because they cannot raise their voice. With meager wage they meet their consumption-needs and many of them cannot afford money in time of diseases. For this reason they do not seek treatment.

Key Words: Disease, Working Environment, Nutritional Status, Treatment seeking Behavior and Affordability of money.

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1. INTRODUCTION

In Bangladesh commercial shrimp cultivation began from the decade of 1970s and radically expanded in last two decades in the southeast and southwest coastal regions. The World Bank advised the Government of Bangladesh (GoB) to make shrimp farming as feasible livelihood option so that the poor. It helps the poor people to get involved in productive employment and improve the return from their land. In fact outsiders' business interest has dominated the industry than that of the local people (Christian Aid, 1996). Among the southwest coastal regions shrimp farming has expanded especially in Bagerhat, Khulna and Satkhira district. UNDP and FAO estimated that 129,530 hectares of land went under shrimp farming in the year 2005 in Bangladesh. Out of total 93,799 shrimp farms, Bagda (brackish water prawns) are produced in 26,155 shrimp farms and Golda (fresh water prawns) is produced in 67,644 shrimp farms. The area under Bagda is 128,274 hectares and Golda is grown in 28,411 hectares making a total of 156945 hectares. This represents about 80% of the total area under the shrimp cultivation in Bangladesh (Tutu, A.A. 2004).

In the southeast and southwest coastal areas of Bangladesh, around 16,34,903 hectares of land are utilized for shrimp cultivation; there are 135 industrial units established in the region based on the production of the shrimp cultivation. The activities (both primary and secondary) centering around shrimp cultivation given employment, income and livelihood to a large number of people.

2. LITERATURE REVIEW

Tutu, A.A. and Rahman, P. (2004) their Bengali book "Chingri Khamare Manobadhikar Longhoner Chitra" try to portray the violation of human rights in shrimp sectors especially in the south-western region of Bangladesh. There are a number of impacts due to shrimp cultivation; these are on livelihood, environment and society at large. The impacts on environment include blockage of water canal increase of salinity, loss of mangrove forest due to human interference, non-availability of drinking water, loss of bio-diversity and marine resources, loss of soil-fertility and so on. On the other hand, social and economic impacts include land-related conflicts, harassment of working female labor, hazardous working condition in cultivation and processing plants, rapidly changing social structure and values, related issues of children dropping out from

school. Among the aspects related to livelihood are shrinking of agricultural land area, drop in agricultural employment, scarcity of fuel wood, decrease in the natural production of fry and larvae. The causes enumerated to be responsible for social conflicts in shrimp cultivation are high density of population (leading to rise in land-price, poisoning in shrimp 'gher' (bounded area) violation of women and children (physically) etc.

In one sense, both adults and children especially rural poor are involved in different stages of shrimp sectors e.g. shrimp farm level, depot level, fry collection, ice factories, feed collection and processing industries. Women and children who are involved in these sectors are disadvantaged socially and economically and are victimized by various repression and torture including sexual and physical abuse, even rape. In shrimp sector women and children as a vulnerable group are pressurized (FAO, 1990; Christian aid, 1996). Another research work depicts that continuous work in water causes various vaginal and muscle related traumas and diseases like diarrhea, dysentery, gastric, dizziness, vomiting, scabies, cough, cold, fever and abdominal pain. Children (12-15) years generally suffer more from these diseases than the younger ones (Tutu, A.A. 2006).

Female labors in the shrimp farms or depots have to work overtime with no benefit for overtime period and in time of receiving payment they face salary discrimination with irregularity. They undergo various diseases due to prolong labor and unhygienic environment of work like; respiratory diseases, air borne diseases, skin diseases, arthritis diseases, reproductive diseases, nutritional diseases and so on. These diseases make them poor physically and mentally. Shrimp farming in a sense a source of women empowerment, but it marginalizes female labor. Family relation is becoming weaker than previous through shrimp culture and now maximum separated women involve in this work force. Due to availability of cash money, male marries more than one woman.

3. OBJECTIVE OF RESEARCH

The study aims to estimate:

- i. The degree of severity and depth of injuries in work place at the working hour and continuous work in cold water,

- ii. The significance of overtime work and low payment structure and lack of financial security,
- iii. Work in time of natural disaster ,
- iv. The significance of spread of various contagious diseases and lack of health safety measures,
- v. The significance of low social status and working harassment of female labor including sexual harassment, physical torture, verbal abuse, eve-teasing and so on.

4. METHODOLOGY

The study was carried out in some specific districts of south-western regions including Satkhira and Khulna districts. Under Satkhira district, two thanas (Kaligonj and Debhata) were selected and under Khulna district, two thanas (Batiaghata and Dumuria) were selected. Under Debhata and Kaligonj thanas, there were several villages named Batshala, Parulia, Sarsadanga, Gagirhat, Kakchiali, Kukudanga, Narayonpur, Batuadanga. Under Batiaghata and Dumuria thana, there were other villages named Alaipur, Koya bazaar, Baroyarir bazaar. The time of data collection was from June to July of 2009. The study design was conducted through survey research design. From the population of the study areas 120 samples were collected through a more or less random sampling techniques. Focus group discussion (FGD) method also adopted for collecting data. An interview schedule was used for data collection including open ended, close ended and matrix type questions.

In this study, data were collected from the female labor who were engage in various shrimp production-related activities in southern region of Bangladesh. To test the research hypothesis and to achieve research objectives data were analyzed and interpreted by using descriptive as well as inferential statistical techniques. Both primary and secondary sources of data were used to conduct the study. Data were analyzed by using various statistical tools like, frequency distribution, percentage analysis, and co-relation. Among co-relation analysis Pearson's chi-square was adopted to test the research hypothesis.

5. EMPIRICAL FINDINGS AND ANALYSIS

For the study purpose different age groups were taken to analyze the impact of shrimp culture on female labor livelihood activities. Moreover, there was an impact of shrimp culture on different age group in the study areas that disclosed through their involvement in occupation.

5.1 Socio-economic features

Age Composition, Marital Status, Educational Status and Level of Income

TABLE 1
AGE COMPOSITION, MARITAL STATUS, EDUCATIONAL STATUS AND
LEVEL OF INCOME OF THE RESPONDENTS

Age Group (years)	Percentage	Marital Status	Percentage
11-20	7.5	Married	40.0
21-30	29.2	Unmarried	17.5
31-40	43.3	Separation	21.7
41-50	13.3	Husband polygamy	13.3
51-60	6.7	Widow	7.5
Total	100.0	Total	100.0
Educational Status	Percentage	Level of Income (in Tk.)	Percentage
Primary	30.0	Below 2000	62.5
Secondary	5.0	2001- 3500	22.5
Illiterate	65.0	3500 and above	15.0
Total	100.0	Total	100.0

Source: Own survey 2009

Data presented in the Table 1 show that among 120 respondents, (11-20) age group respondents were more than 7 percent, (21-30) age group was above 29 percent and around 43 percent respondents belonged to the age group (31-40). Beside, nearly 7 percent of total respondents were shown in the category of (51-60) and more than 13 percent of total respondents were within 41-50 age group.

It is seen from the Table that 40 percent of the total respondents were married women who were involved in shrimp related activities. Beside, separated women were the second largest number (21.7) and more than 17 percent of total

respondents possessed unmarried status and above 13 percent was in the category in which husbands are involved in polygamy. Small portions of 7.5 percent of the total respondents were widows in different shrimp sectors.

Most of the respondents of the study areas, around 65 percent of the total were illiterate and a small portion of respondents had attained secondary level with 5 percent of the total and 30 percent had primary level education.

It is also seen that over 62 percent of total respondents' income was below Tk. 2000 and about 23 percent respondents' earning was below Tk. 3500 monthly and 15 percent respondents' earning was above Tk. 3500 monthly.

Daily Working Hours and Working Environment

TABLE 2
DAILY WORKING HOURS AND WORKING ENVIRONMENT OF THE
RESPONDENTS

Daily working hours	Percentage	Environmental Condition of Work Place	Percentage
5 to 8 hours	28.3	Healthy	76.7
9 to 11 hours	46.7	Unhealthy	23.3
About 12 hours	25.0	Total	100.0
Total	100.0 (N=120)		(N=120)

Source: Own Survey 2010

The respondents (numbering 120) give a set of important information related to working hours and work-environment in shrimp cultivation, deports and processing plants (see Table 2). The following points can be noted on work-related situation of female labor in the shrimp cultivation sector of the area;

- (i) The average (daily) work-hours are relatively high in the range of 9 to 12 hours; and it is seven days in a week. Alternatively speaking, it is about 70 to 80 hours of work of a buyable labor. In most cases, there are no public holidays (even during Eid-ul-Fitr).

- (ii) The overtime work involves duties (mainly in the processing plants) in unearthly hours during night shifts.
- (iii) The working environment (physical) in 77 percent of the cases are reported to be satisfactory or healthy. But in about 23 percent cases (which is significant in number), the workers report unhygienic conditions.

Female workers' Disease, Patterns, Healthcare Seeking, Remedial Measures

The female workers show a certain pattern of diseases and suffering due to the diseases. Tables 3 and 4 present estimates on disease-patterns and health-seeking responses by the respondents. The Tables give us the following information.

- (i) Over 29 percent of the workers suffered from both skin and airborne diseases; similarly another 29 percent suffered from both skin and physical weaknesses e.g. knee and waist inflammation, pain, numbness in limbs, back-pain.

TABLE 3
SUFFERINGS OF DISEASES AND HEALTH SEEKING BEHAVIOR
AMONG RESPONDENTS

Types of Diseases	Percentage	Response to Health Seeking	Percentage
Skin diseases	8.3	Yes	68.3
Air-borne diseases	4.2	No	31.7
Both skin and air borne diseases	29.2	Total	100.0 (N=120)
Both skin diseases and physical weakness	29.2		
Both skin and arthritis diseases	29.2		
Total	100.0 (N=120)		

Source: Own Survey 2010

- (ii) More than 68 percent of the respondents went for some curative healthcare. Out of this percent-share, the majority 35 percent went for Allopathic treatment, 21 percent went to Homeopathic doctors and 9

percent went to the traditional healers (practitioners) e.g. herbal or ayurvedic, Yunanic (Hakim).

TABLE 4
REMEDIAL MEASURES ADOPTED BY THE RESPONDENTS

Remedies	Percentage
Nothing	31.7
Allopathic	35.0
Homeopathy	20.8
Traditional	9.2
Folk	3.3
Total	100.0

In this study, health status was measured through body mass index (anthropometric indicator) that indicates nutritional status of a person. It was calculated as the weight in kilograms divided by the height in meters squared. The BMI value reflected the balance between dietary energy intake and physical activity during the last few months or several years. Diseases that affect digestion and metabolism as well as infectious diseases that put extra energy demand on the body also influence BMI. Therefore BMI cannot distinguish between a person that is thin due to lack of food.

BMI between 18.5 and 25 tend to have fewer diseases and to live longer than persons with lower or higher BMI. A person who is unhealthy and thin is said to be wasted and the phenomena is generally known as wasting. In contrast a person who is unhealthy and fat is said to be overweight or obese. A BMI >25 indicates overweight but this is not necessarily equivalent to obesity, as athletes with great muscle mass will also have a high BMI. Overweight is usually classified as grade 1: 25-30; grade 2: 30-40; grade 3: >40. If, BMI is below 18.5 the risk of death increases. Wasting is classified into three categories, grade 1: 17-18.5; grade 2: 16-17; and grade 3: <16, the last bearing the highest death risk. If the number of individuals with low BMI in a population is increasing, it is likely that there is a food shortage.

TABLE 5
HEALTH STATUS OF RESPONDENTS

Level of Body mass Index (BMI)	Percentage
Overweight adults(>25)	12.5
Standard(18.5-25)	76.7
Underweight adults(<18.5)	10.8
Total	100.0

Source: Own Survey 2010

Proportion of overweight is percent with BMI (kg/ height in m²) >25

Proportion of underweight is percent with BMI (kg/ height in m²) <18.5

Height = (inches * .0254) = height m².

Ideal for female; (18.5-24) and standard is 21 and for male (18.5-25) and standard is 22.

Data presented in Table 5 show that nearly 77 percent respondents had standard weight but about 11 percent respondents had underweight that bears the highest risk of diseases and death. On the other hand, more than 12 percent respondents possessed overweight that also bears a high risk of death and diseases. Only the standard weight refers fewer diseases and long life.

Factors Affecting Nutritional Status of Female Labor in Shrimp Farming

Occurrence of Diseases and Job Categories

TABLE 6
OCURRENCE OF DISEASES AMONG RESPONDENTS AND JOB CATEGORIES IN SHRIMP SECTORS

			Job Categories				Total
			Shrimp fry collection	Shrimp gher	Shrimp depot	Shrimp processing industry	
Diseases Pattern	Skin diseases	Count	0	2	2	6	10
		% within disease	0.00%	20.00%	20.00%	60.00%	100.00%
	Air-borne diseases	Count	3	1	1	0	5
		% within disease	60.00%	20.00%	20.00%	0.00%	100.00%
	Both skin and air borne diseases	Count	9	6	6	14	35
		% within disease	25.70%	17.10%	17.10%	40.00%	100.00%
	Both skin diseases and physical weakness	Count	14	8	10	3	35
		% within disease	40.00%	22.90%	28.60%	8.60%	100.00%
	Both skin and arthritis diseases	Count	4	13	11	7	35
		% within disease	11.40%	37.10%	31.40%	20.00%	100.00%
	Total	Count	30	30	30	30	120
		% within disease	25.00%	25.00%	25.00%	25.00%	100.00%
Pearson Chi-Square Tests	Value	df		Asymp. Sig. (2-sided)			
	29.029	12		0.004			

Source: Own Survey 2010

Female workers Nutrition: Status and Related Factors

Factors affecting nutritional statuses of female labor are related to job-types and types of diseases they suffer from. One of type of factors (e.g., job-type) reinforce the other type (e.g., disease-types); these two type have implications for nutritional status of the female labor. The factors relating to nutritional status of the female labor may be noted below (see Table 6):

- (i) Workers suffering from skin disease mainly (60 percent of them) belonged to shrimp processing plants and 20 percent of them belonged to shrimp 'ghers' (encircled plots) and depots. On the other hand suffering of airborne disease was high among workers of fry-collecting type; about 60 percent among the cultivation workers.
- (ii) Both skin and air-borne diseases were high among industry (processing plant-based) respondents; it was about 40 percent. Then follows respondents from fry-collection workers (about 26 percent) and they shrimp gher and shrimp depots (17 percent) in both case. Both skin and physical weaknesses were observed to be high among fry collection workers (40 percent of the total respondents). In the case of both skin and arthritis diseases, the gher (encircled plots) workers suffered the most (about 37 percent of the total respondents).
- (iii) Going by the chi-square test (where the calculated value is 29.03 with degrees of freedom, and it is higher than the tabulated value of 26.22 at 12 degrees of freedom and at 1 percent level of significance), the null hypothesis (i.e., there is no relationship between job-categories and disease-pattern) is rejected. The alternative hypothesis of relationship between job-categories and disease pattern can be accepted.

Disease-pattern, Overtime work, Nutrition status

There may be a relationship between disease-pattern and overtime work (see Table 7). The Table reveals the following:

- (i) About 80 percent of the overtime workers were suffering from skin disease. Another 60 percent of the overtime workers suffered from both skin and air-borne diseases.
- (ii) Skin and physical weakness were not seemed to be related to overtime work. Because, about 66 percent of the affected workers were not doing overtime duties. Similarly, the workers (51 percent of the total) who suffered from both skin and arthritis diseases did not participate in overtime duties.

The result of the chi-square test is significant in that sense, female labors who involve with overtime work in various shrimp related activities, they suffer in diseases with varying degree.

TABLE 7
OCCURRENCE OF DISEASES AMONG THE RESPONDENTS AND
OVERTIME WORK IN SHRIMP SECTOR

			Overtime Work		Total	
			Yes	No		
Diseases Pattern	Skin diseases	Count	8	2	10	
		% within disease	80.0%	20.0%	100.0%	
	Air-borne diseases	Count	1	4	5	
		% within disease	20.0%	80.0%	100.0%	
	Both skin and air borne diseases	Count	21	14	35	
		% within disease	60.0%	40.0%	100.0%	
	Both skin diseases and physical weakness	Count	12	23	35	
		% within disease	34.3%	65.7%	100.0%	
	Both skin and arthritis diseases	Count	17	18	35	
		% within disease	48.6%	51.4%	100.0%	
	Total		Count	59	61	120
			% within disease	49.2%	50.8%	100.0%
Pearson Chi-Square Tests		Value	df	Asymp. Sig. (2-sided)		
		10.255	4	.036		

Occurrence of Diseases and Nutritional Status

On the relationship between disease-pattern and nutritional status, and overtime work and nutritional status (of the workers) we have a number of empirical evidence, see Table 8 and 9. The observations are given below:

- (i) Prevalence of skin and air-borne diseases were found more (74 percent of the workers) with standard-weight maintaining workers. This has been found statistically significant by the Chi-Square test.

TABLE 8
OCCURRENCE OF DISEASES AND NUTRITIONAL STATUS AMONG
RESPONDENTS

			Body Mass Index (BMI)			Total	
			Overweight adults(>25)	Standard (18.5-25)	Underweight adults(<18.5)		
Diseases Pattern	Skin diseases	Count	0	10	0	10	
		% within disease	.0%	100.0%	.0%	100.0%	
	Air-borne diseases	Count	3	0	2	5	
		% within disease	60.0%	.0%	40.0%	100.0%	
	Both skin and air borne diseases	Count	1	31	3	35	
		% within disease	2.9%	88.6%	8.6%	100.0%	
	Both skin diseases and physical weakness	Count	5	26	4	35	
		% within disease	14.3%	74.3%	11.4%	100.0%	
	Both skin and arthritis diseases	Count	6	25	4	35	
		% within disease	17.1%	71.4%	11.4%	100.0%	
	Total		Count	15	92	13	120
			% within disease	12.5%	76.7%	10.8%	100.0%
Pearson Chi-Square Test		Value	df	Asymp. Sig. (2-sided)			
		24.111	8	.002			

TABLE 9
NUTRITIONAL STATUS AND INVOLVEMENT WITH OVER TIME
WORK OF THE RESPONDENTS

			Overtime Work		Total
			Yes	No	
Body Mass Index (BMI)	Overweight adults (>25)	Count	9	6	15
		% within BMI	60.0%	40.0%	100.0%
	Standard(18.5-25)	Count	48	44	92
		% within BMI	52.2%	47.8%	100.0%
	Underweight adults(<18.5)	Count	2	11	13
		% within BMI	15.4%	84.6%	100.0%
Total		Count	59	61	120
		% within BMI	49.2%	50.8%	100.0%
Pearson Chi-Square Tests		Value	df	Asymp. Sig. (2-sided)	
		6.973	2	.031	

- (ii) Among the over-weight respondents about 60 percent did involve themselves in overtime work. Among the standard-weight workers a lower percent of them i.e., 52 percent got involved in overtime work. The Chi-Square test shows that there is a statistically significant relationship between overtime work and nutritional status.

Level of monthly Income, Educational Attainment, Nutritional status, Food consumption, Money Availability, Treatment Seeking Behavior

**TABLE 10
NUTRITIONAL STATUS AND LEVEL OF INCOME OF THE RESPONDENTS**

			Level of Income			Total
			Low (Below 2000)	Medium (2001-3500)	High (3500 & Above)	
Body Mass Index (BMI)	Overweight adults (>25)	Count	9	6	0	15
		% within BMI	60.0%	40.0%	.0%	100.0%
	Standard (18.5-25)	Count	54	20	18	92
		% within BMI	58.7%	21.7%	19.6%	100.0%
	Underweight adults (<18.5)	Count	12	1	0	13
		% within BMI	92.3%	7.7%	.0%	100.0%
Total		Count	75	27	18	120
		% within BMI	62.5%	22.5%	15.0%	100.0%
Pearson Chi-Square Tests		Value	df	Asymp. Sig. (2-sided)		
		10.887	4	.028		

Livelihood levels and standards are influenced by (household) income level, educational attainment, food consumption, financial availability for treatment and nutritional status of the female workers. We present some empirical evidence on the above mentioned variables of the workers. They are:

- (i) One notable (and also expected) feature of the low income workers (with monthly income of Tk. 2000/- or below) is that an overwhelming 92 percent of them were underweight. A good number of overweight (60 percent of them) and standard weight workers (59 percent of them) belonged to the low income workers category (see Table 10).

TABLE 11
NUTRITIONAL STATUS AND SATISFACTORY FOOD CONSUMPTION
PATTERN OF RESPONDENTS

			Satisfactory Food Consumption Pattern		Total
			Yes	No	
Body Mass Index (BMI)	Overweight adults (>25)	Count	14	1	15
		% within BMI	93.3%	6.7%	100.0%
	Standard (18.5-25)	Count	46	46	92
		% within BMI	50.0%	50.0%	100.0%
	Underweight adults (<18.5)	Count	6	7	13
		% within BMI	46.2%	53.8%	100.0%
Total		Count	66	54	120
		% within BMI	55.0%	45.0%	100.0%
Pearson Chi-Square Tests		Value	df	Asymp. Sig. (2-sided)	
		10.246	2	.006	

- (ii) From Table 11, it is found that most of the underweight workers (about 54 percent of them) could not maintain/sustain a satisfactory level of consumption. In fact, low income level, unsatisfactory food consumption and deficient nutritional status are highly related.
- (iii) For treatment of diseases, the workers needed money. In 68 percent of cases, the workers went for treatment; of which about two-third cases (numbering 50 cases) were financed out of own fund and other one-third (i.e., 26 cases) financed by own and husband's fund. Roughly 32 percent could not seek any treatment due to lack of money (see Table 12).

TABLE 12
**AFFORDABILITY OF MONEY AND TREATMENT SEEKING BEHAVIOR
 AMONG RESPONDENTS**

			Treatment Seeking Behavior		Total
			Yes	No	
Affordability of Money	Can't afford money	Count	3	36	39
		% within money	7.7%	92.3%	100.0%
	Own	Count	50	2	52
		% within money	96.2%	3.8%	100.0%
	Other sources	Count	3	0	3
		% within money	100.0%	.0%	100.0%
	Own and husband	Count	26	0	26
		% within money	100.0%	.0%	100.0%
Total		Count	82	38	120
		% within money	68.3%	31.7%	100.0%
Pearson Chi-Square Tests		Value	df	Asymp. Sig. (2-sided)	
		98.315	3	.000	

- (iv) Most of the workers (65 percent of the total 120) were illiterate; the illiterate workers being highest among the overweight workers (about 88 percent of 15 workers). There is a statistically significant relationship between educational level and nutritional status of female workers. Better educated workers maintain balanced nutritional status (see Table 13).

TABLE 13
NUTRITIONAL STATUS AND EDUCATIONAL ATTAINMENT OF THE
RESPONDENTS

			Educational Attainment			Total
			Primary	Secondary	Illiterate	
Body Mass Index (BMI)	Overweight adults (>25)	Count	2	0	13	15
		% within BMI	13.3%	.0%	86.7%	100.0%
	Standard (18.5-25)	Count	26	5	61	92
		% within BMI	28.3%	5.4%	66.3%	100.0%
	Underweight adults(<18.5)	Count	8	1	4	13
		% within BMI	61.5%	7.7%	30.8%	100.0%
Total		Count	36	6	78	120
		% within BMI	30.0%	5.0%	65.0%	100.0%
Pearson Chi-Square Tests		Value	df	Asymp. Sig. (2-sided)		
		10.216	4	.037		

5. CONCLUSION

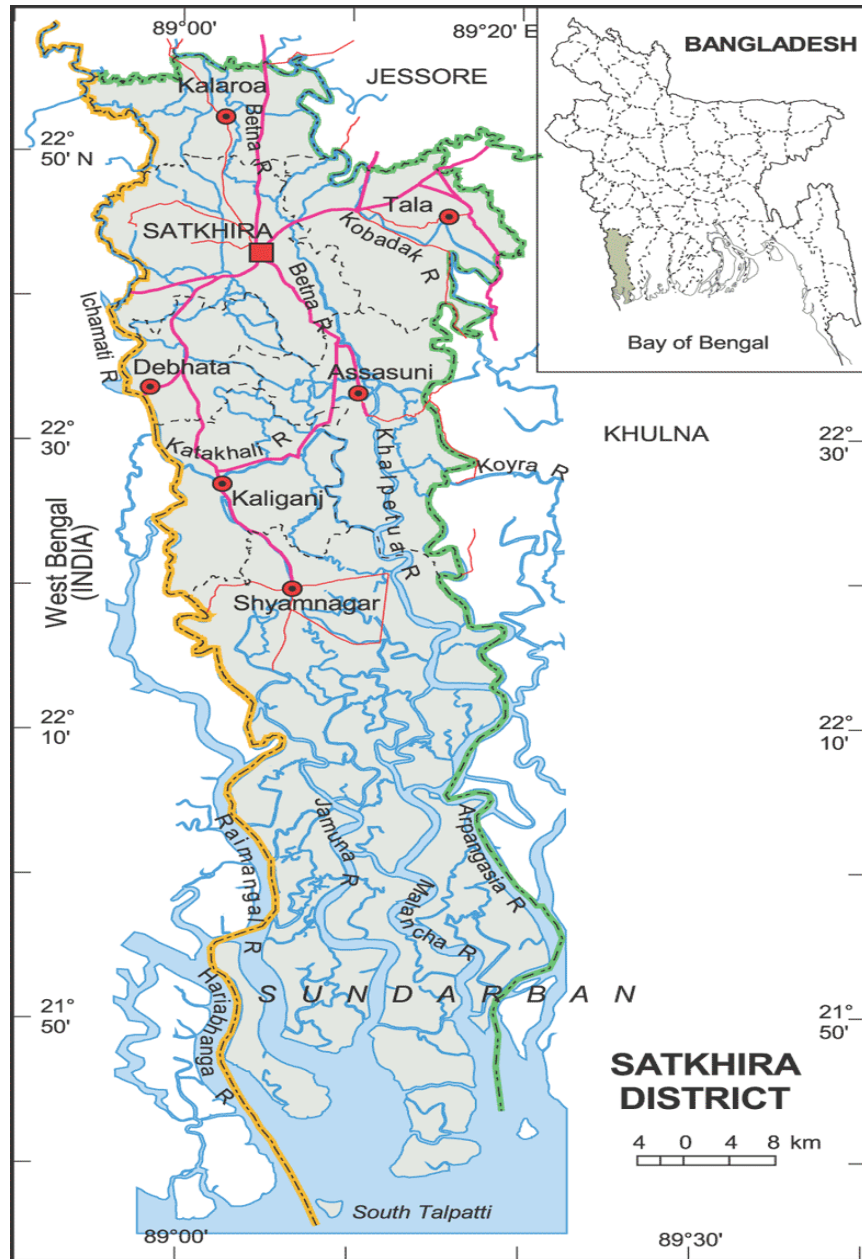
Due to various socio-economic complexities females at an early life or certain stages of life involve with shrimp related activities and young adults are seen more than other age groups. Large number unmarried and family broken women engage in this sector having no education or primary education. Maximum females work with low payment and besides it, they also involve with secondary activities. Workers in this sector have to work 7 days of a week without any leave in time of goan even eid festival. In depots and processing plants women have to work allover night about 12 hours in time of goan without any break. In shrimp sector there is salary discrimination between male and female because females are contractual but males are permanent. Many female labors engage with samity and some of them take loan for maintaining their life. In time of off-season it's a pressure on them to pay the installment. There are a lot of female labors who have bad relation with husbands that's why those husbands do not provide expenses. Besides, they often face domestic violence for trifle matter. Female labors of this sector have less opportunity in decision making process of their own matter. With meager salary they often do not buy

sufficient food for consumption. Maximum workers of this sector suffer in various diseases because they have to work in cold water all over night. Skin diseases are seen very much rather than other diseases like; sores in hands and legs, scabies, red patches, itching, skin browning and so on. Sometimes they cannot afford treatment due to lack of money and sometimes they manage money for treatment from other sources. They have no property and stay khas lands but, few of them have own living lands. Female workers who work in the shrimp farm, society's people pay negative attitude toward them because they work outside with males. Besides, they have no labor union of their own that's why they often face various harassing situation. Moreover, shrimp farming guides various problems for them that disturb their livelihood pattern. Shrimp farming also leads various illegal activities in the society like; sexual abuse, eve-teasing, drink and gambling, physical torture and so on. On the other hands, divorce, dowry, domestic violence, extramarital relation, male polygamy increases day by day as an outcome of shrimp farming.

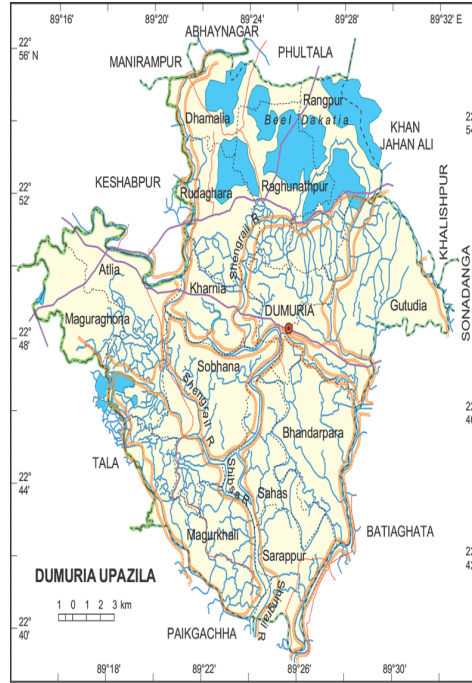
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ANNEXURE 1
MAP OF SATKHIRA DISTRICT, BANGLADESH



ANNEXURE 2
MAP OF STUDY AREAS, BATIAGHATA AND DUMURIA UPAZILAS,
SATKHIRA DISTRICT



ANNEXURE 3
MAP OF STUDY AREAS, KALIGANJ AND DEBHATA UPAZILAS,
SATKHIRA DISTRICT

