

# Food Habit and Dietary Intake of Garment Workers in Semi-Urban Area of Bangladesh

**Afroza Chowdhury**  
**Scientific Officer**

Agricultural Economics Division  
Bangladesh Rice Research Institute (BRRI), Gazipur, Bangladesh.  
E-mail: afroza\_muna@yahoo.com

## Abstract

The study was conducted to assess the food habit and dietary pattern of garment workers who work at semi-urban area of Dhaka and Gazipur. Under the specific objectives the study tried to reveal the family background of garment workers, reasons of migration and involving in garment factory, monthly budgetary allocation for food, access to commodity market, rice consumption pattern, average food intake and changes in overall livelihood pattern. The result showed that, 12 percent of the respondent was the only earning member of the family. Average family size of the respondents was 7 whereas number of dependent family member on his/her income was 3 (on an average). Most of the respondent garment workers belong to farming community (78%). The majority (58 percent) of them were migrated for extreme poverty or insolvency. The finding ensured that cereals, notably rice, constitute the most important item of food consumed by the garment workers. Rice essentially dominated average daily food intake per person at 443 grams making up 52.37% of total food consumption. Among the respondent's 36 percent took rice thrice a day and rice were also being consumed as snacks in different forms as well. Varietal preference of rice was found dependent on respondent's budget constraints and per unit retail price.

**Keywords:** Average daily food intake, budget for food, food habit, rice consumption.

## 1. Introduction

Although the economy of Bangladesh is largely dependent on agriculture, the Ready-Made Garments (RMG) sector has emerged as the biggest earner of foreign currency. The sector has experienced an exponential growth and contributes significantly; about 15 percent; to the GDP. It also provides employment to around 4.2 million Bangladeshis and uplifted the neglected section of the population; especially women; through empowerment and transforming their socio-economic condition (Ali R.N. *et al*, 2008). With a dream of living better life millions of workers from villages gather in workers barrack in cities surrounding the garment industries. The daily diet consumed by the factory workers in Bangladesh is simple; rice is dominant and most probably lacks important nutrients. Hence, consumption of such diet presents a risk of developing nutrient deficiency disorders (Dipti S.S. *et al*, 2008). Being the most dominant food in Bangladeshi diet, rice is the primary source of energy and several nutrients such as carbohydrate, protein and iron whereas it contributes relatively little of the vitamin A, calcium and no vitamin C (Hassan and Ahmad, 1990).

In Bangladesh, food habit and cooking process of rice and vegetables generally leads to significant loss of nutrients as a result of lacking in nutritional knowledge and awareness among the mass people. Food and nutritional security are a focal point of deriving the livelihood. Thus, it is important to investigate the food habit and determine the amount of the different nutrients that an individual garment worker can derive from average daily per capita food intake.

## 2. Research Objectives

The specific objectives of the study were

- To assess the socio-economic status and budget for food of garment workers in Bangladesh; and,
- To investigate the food habit and dietary intake of garment workers.

### 3. Research Methodology

The study was conducted in purposively selected semi-urban areas of Savar *Upazila* of Dhaka and Sadar *Upazila* of Gazipur district. In total, 165 respondents were selected by random sampling. Food consumption and socio-economic data of garment workers were collected using pre-tested structured questionnaire. In this study, quantitative method was chosen in order to get a reasonably true picture of the entire population. The data were collected during the period from July to September, 2019. Simple statistical techniques such as percentage and arithmetic mean were taken into account to analyze a substantial part of the data and to describe socioeconomic characteristics, food habit and dietary intake of the respondents.

### 4. Result and Discussion

#### 4.1 Socio-economic Characteristics and Background of Garment Workers

Two types of households were found in the study areas. Some of the garment workers live in workers barrack migrating alone; whereas others live with their family members. Among the respondent's majority (64%) was female and their age ranged from 16 to 35 years. Average age of schooling and years of employment in RMG sector was 6 and 3, respectively. About 12 percent of the respondents reported that he/she is the only earning member of the family. Average family size of the respondents was 7 whereas number of dependent family member on his/her income was 3 (on an average). Most of the respondents belong to farming community (78%) either landless tenant or marginal farming family (Table 1). The third and fourth community belongings identified were non-agricultural laborer and non-migrated local poor, respectively.

Table1: Family Background of the Garment Workers

Community	Number of respondents	Percentages
Landless tenantfarming family	83	50
Marginal farming family	46	28
Non-agricultural Laborer	23	14
Non-migrated Local poor	13	8
<b>Total</b>	<b>165</b>	<b>100</b>

Source: Field survey (2019)

#### 4.2 Causes of Migration

Several factors seemed to be responsible for the migration of rural population for employment in urban garments. The majority (58 percent) of them were migrated for extreme poverty or insolvency. The second important factor was search of job or unemployment. About 18 percent of the respondents were migrated for this reason. The third and fourth important causes identified by the migrants were to accompany husbands at workplace and personal problems, respectively (Table 2).

Table2: Causes of migration to Garments

Causes of migration	No. of respondents	Percentages
Extreme poverty or insolvency	96	58
Unemployment	30	18
Marriage/ spouse's workplace	23	14
Personal problems or Conflict	16	10

Source: Field survey (2019)

Note: Percentage may not sum to 100 percent because of multiple responses

#### 4.3 Budget for Food and Access to Commodity Market

##### 4.3.1 Budget for Food

For the people of low-income group, food consumption and dietary intake is closely related to budgetary allocation and purchasing power. The respondents expressed their helplessness in facing the biggest challenge of balancing between financial ability and basic needs. The situation becomes miserable for single earners, unskilled and preliminary garment workers in the 1<sup>st</sup> week of every month, because of delay in getting salary. Sending money to

village, house rent, educational fees etc. were the major priorities in budget allocation. Whatever remains after meeting all other necessities was spent on food. The result revealed that, 44 percent of the respondent allocated Tk. 51-60 for daily meals per person (Table 3).

Table 3: Garment workers' Daily Budget for Food

Daily Budget per Person	No. of respondents	Percentages
Less than Tk. 50	30	18
Tk. 51-60	73	44
Tk. 61-70	49	30
Above Tk. 60	13	8

Source: Field survey (2019)

#### 4.3.2 Access to Commodity Market

At semi-urban and urban garment areas, vendors sell lower quality semi-rotten commodities and unappealing fruits at cheaper rate at evening markets. In the study areas, cent percent respondent reported that they prefer to buy day-to-day commodities from the evening markets while coming back home. Of the total garment workers, 96 percent choose the evening market as it provided commodities in cheap and affordable price. A proportion of 92 percent and 84 percent preferred it for no additional transport cost and scope of bargaining, respectively. The respondents also liked evening markets for other reasons such as availability of preferred commodities, freshness etc. (Table 4).

Table 4: Reason for Choosing Evening Markets

Reasons	No. of respondents	Percentages
Cheap price and affordable	159	96
Free of transport and carrying cost	151	92
Scope of bargaining	139	84
Fresh vegetables and seasonal fruits	56	34
Availability of small fishes in <i>bhaga</i>	86	52
Availability of dry fish	53	32
Availability of chicken byproducts (liver, throat, skin, kidney etc.) in kg.	23	14
Formalin/ preservative-free	36	22

Source: Field survey (2019)

Note: Percentage may not sum to 100 percent because of multiple responses

#### 4.4 Food Habit and Dietary Intake

##### 4.4.1 Rice Consumption Behavior

Looking into the dietary practices of the garment workers, results revealed that cereals, notably rice, constitute the most important item of food consumed in the study areas. Parboiled rice was served as major staple to 96 percent of the respondent while a small percentage was served wheat flour and un-parboiled rice. Among the respondent's 36 percent took rice thrice a day. Boiling rice in excess water and discarding the gruel was found common practices and reported by 72 percent respondents. Varietal preference of rice was found dependent on respondent's budget constraints and per unit retail price. Cooking quality and taste of rice was preferred than grain shape and appearance. The study results hardly found dis-similarities among the interviewees regarding rice consumption behavior.

Rice is also being consumed as snacks in different forms like *Moori* (puffed rice), *Chira* (flattened rice), *Khoi*, *Chal-vaja*, *Khud* (broken rice) and *Pitha* (cakes made of rice flour).

Table 4: Consumption Pattern of Different Rice Items

Rice Items	Percentage of respondent	
	Regular Consumption	Occasional Consumption
Parboiled Rice	96	-
Un-parboiled Rice	4	64
<i>Moori</i> / puffed rice	100	-
<i>Chira</i> / flattened rice	40	60
<i>Khoi</i>	-	76
<i>Rooti</i> (bread of rice flour)	14	100
<i>Chal-vaja</i> and <i>Khud</i> (broken rice)	10	90
Gruel	-	10
<i>Panta</i> /Left-over rice	-	30
<i>Pitha</i> (cakes made of rice flour).	-	100

Source: Field survey (2019)

#### 4.4.2 Food Consumption Pattern

Average per capita food consumption pattern of garment workers was highest for cereals and cereal products followed by vegetables and tubers. Rice essentially dominated daily food intake at 443 grams making up 52.37% of it. Milk and milk products, egg and meat were consumed only occasionally in a small amount. Fruit intake was mainly seasonal and includes banana, mango, jackfruit, guava, black berry and other locally produced less-expensive ones. The least consumed food groups were vegetables, fish, pulse, sugar, edible oil etc.

Table 5: Average per capita per day food intake of garment workers

Items	Average per Capita per Day Food Intake (grams)	Percentages of Total Consumption
Rice and rice products	443.6	52.37
Wheat and other Cereals	27.1	3.20
Potato, starchy root and tubers	55.2	6.52
Pulse	24.9	2.94
Sugar/ Gur	7.5	0.89
Edible Oil	17.2	2.03
Vegetables	162.1	19.14
Fruits	13.5	1.59
Fish, dried fish and Meat	40.05	4.73
Eggs	6.04	0.71
Milk and milk products	23	2.72
Spices and condiments	10.9	1.29
Miscellaneous (tea, soft drinks, snacks, betel leaf etc.)	15.9	1.88
Total Food Consumed	847	100

Source: Field survey (2019)

Comparing the average per capita per day food intake of garment workers with the daily requirement (as per BAN-HDRB 2007) it is clear that they are consuming food items; except rice; in a lesser amount than required (fig. 1). Rice is being consumed in a higher rate (26.74 percent) than the daily requirement of 350 grams. This pattern of imbalanced consumption may lead to serious malnutrition and health hazards.

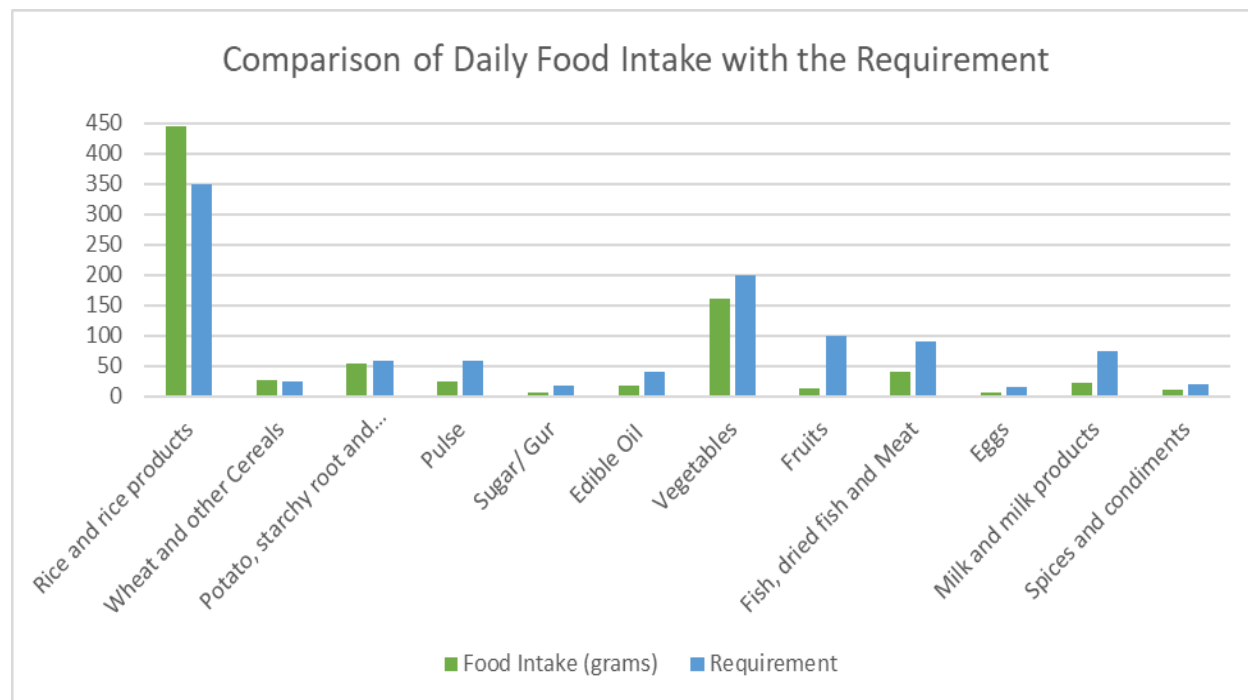


Figure 1: Comparison of Daily Food Intake with the Requirement

#### 4.4.3 Changes in Overall Livelihood Pattern

In order to identify the overall socioeconomic improvement in the livelihood of household, the respondents were asked about their opinion for their overall socioeconomic change that might have taken place due to involving in garment factory. Table 6 reveals that 64 percent of the respondents reported that their socio-economic conditions had improved due to involving in garment factory, while 36 percent responded no change in their overall socioeconomic condition has taken place. Rising inflation, repaying loan and increasing family expectation were the main reasons reported by the respondents who had the negative responses.

Table 6: Changes in overall livelihood pattern

Types of changes	No. of respondents	Percentages
Improved	105	64
Not Improved	60	36
Total	165	100

Source: Field survey (2019)

#### 5. Conclusion

The study was conducted to assess the food habit and dietary pattern of garment workers who work at Dhaka and Gazipur. Under the specific objectives the study tried to reveal the family background of garment workers, reasons of migration and involving in garment factory, monthly budgetary allocation for food, access to commodity market, rice consumption pattern, average food intake and changes in overall livelihood pattern. The result showed that, 12 percent of the respondent was the only earning member of the family. Average family size of the respondents was 7 whereas number of dependent family member on his/her income was 3 (on an average). Most of the respondent garment workers belong to farming community (78%). The majority (58 percent) of them were migrated for extreme poverty or insolvency. The finding ensured that cereals, notably rice, constitute the most important item of food consumed by the garment workers. Rice essentially dominated average daily food intake per person at 443 grams making up 52.37% of total food consumption. Among the respondent's 36 percent took rice thrice a day and rice

were also being consumed as snacks in different forms as well. Varietal preference of rice was found dependent on respondent's budget constraints and per unit retail price.

## 6. Recommendation

Current condition of the garment workers would not improve if their earning couldn't be balanced with the living cost. Price of daily necessities need to be controlled. Government should supply subsidized daily needs at the industrial areas of Bangladesh. Enriching rice varieties with micro nutrients like vitamins, minerals would be a potential solution to ensuring food as well as nutritional security of the garment workers.

## References

- Ali, R. N., Begum, M. M., Salehim, K. S., & Farid, K. S. (2008). Livelihood pattern of rural women garment workers at Dhaka city. *Journal of the Bangladesh Agricultural University*, 6(452-2016-35506).
- Dipti, S. S., Tuazon, M. A. G., & Kabir, K. A. (2008). Nutritional Status of the Members of the Factory Worker-Headed Households of Four Villages of Gazipur District. *Journal of Agriculture & Rural Development*, 6(1), 119-124.
- Hassan, N., & Ahmad, K. (1984). Studies on food and nutrient intake by rural population of Bangladesh: comparison between intakes of 1962-64, 1975-76 and 1981-82. *Ecology of food and nutrition*, 15(2), 143-158.

## Copyrights

Copyright for this article is retained by the author(s), with first publication rights granted to the journal. This is an open-access article distributed under the terms and conditions of the Creative Commons Attribution license (<http://creativecommons.org/licenses/by/4.0/>).