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CONSUMPTION PATTERN OF FOOD COMMODITIES IN AN AREA OF MYMENSINGH

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ABSTRACT

This study is an attempt to generate some micro level information in respect of pattern of consumption of selected food items and the related food consumption parameters. The results showed that rural consumers consumed more rice and non-food items. Per capita consumption of food in general increased substantially with rise in per capita income. The difference between the poor and the rich in terms of nutrition intake was wider in urban than in rural area. The findings also revealed that the quantities consumed or expenditure on food-rain, potato and pulses did not increase much with rising income in both the areas. On the other hand. chances in income were found to have more impact on consumption of other commodities.

1. INTRODUCTION

Bangladesh is a poor country. where about 50 percent of' the population live below poverty line. Alleviation of poverty through increased consumption of basic need items is the important policy objective of the government. To attain this objective, information concerning the present level and pattern of food consumption is essential.

In a developing economy like Bangladesh, the consumption pattern of household is expected to undergo changes with a rise in aggregate income. The consumption behaviour of urban consumers is expected to be different from that of rural consumers. While price changes may help only partially in the adjustment of demand and supply. other factors including income will have important implication for actual food consumption and the consequent nutritional status of the people.

Information regarding consumption pattern and the factors affecting consumption would be helpful to the government for adopting appropriate policy in respect of price and income changes. This will also assist government to estimate the requirement of different commodities in the subsequent years. On that basis export and import policy will be formulated.

This study has examined the consumption pattern of rural and urban people in a particular area of Bangladesh. The income consumption relationships have also been estimated for selected commodities. The study has also ascertained the nutritional status of the people in terms of calorie intake. Though national level information regarding consumption pattern is available (HES, 1988/89, 91/92) regional level data is essential in the sense that wide regional variation in consumption exists in Bangladesh. The present study is a modest attempt to generate some micro level information in respect of pattern of consumption of selected food items and some related food consumption parameters. Since most of the studies on food consumption were at macro level, the main objective of this study is to examine the difference in results between macro and micro level studies. The information generated by this study will add to the existing stock of information generated by other studies (Deb 1986, Rahman and Hossain 1988, Talukder 1989, 1990) in the area of consumption analysis. Following this introduction, methodology is discussed in Section II. Sections III and IV present findings on consumption level and nutritional status respectively. Section V deals with income elasticities. Conclusions on the basis of results obtained are made in the final section.

II. METHODOLOGY

The study area was Mymensingh Sadar thana. For urban area Agricultural University Campus and for rural area Boyra Union were selected. In Boyra union, five villages were chosen randomly. In case of urban area, population were divided into five categories such as Professor/Associate Professor, Assistant Professor/ Lecturer, Officer, Third Class Employees and Fourth Class Employees. In rural area the sample households were divided into six categories in accordance with land holding such as large, medium, small, marginal, non-farm and landless. From each category samples were drawn randomly in proportionate basis. Finally, a total of 100 household, 60 from urban and 40 from rural areas were selected for this study. (Details of the sampling design can be seen in Kabir, 1995.) Weekly data on consumption and income of the selected household were collected. However, for durable goods annual data were obtained. Although recording of information on food consumption on daily basis would be a better option, weekly recording is also not an uncommon practice. The data were collected over the period from September 1994 to June 1995.

With a view to obtaining estimates of income elasticities for different commodities, double log function was fitted with per capita consumption as dependent variable and per capita income and proportion of adult member of family as independent variables. Additionally dummy variables for different categories of households were taken as independent variable both in the rural and urban equations. The specific functions were as follows:

Urban

$$\ln Q = a + b_1 \ln Y + b_2 AD + b_3 D_1 + b_4 D_2 + b_5 D_3 + b_6 D_4 + U$$

Rural

$$\ln Q = a + b_1 \ln Y + b_2 AD + b_3 D_1 + b_4 D_2 + b_5 D_3 + b_6 D_4 + b_7 D_5 + U$$

Where,

Q = Per capita consumption/expenditure of a commodity

Y = Per capita income of a family

AD = Proportion of adult member in a family

D = Dummy for classes of households

U = Error term

Since per capita expenditure of a commodities was regressed on per capita income of a family, the estimated function is the expenditure function. However, this is a matter of dependent variable and this does not preclude one from calling the equation a demand function. Age specification consumption has not been considered in the present study. Rather per capita consumption represent average consumption of family members of all ages which is also a common practice in consumption analysis is applied in this study.

III. CONSUMPTION LEVEL

Monthly per capita quantity of different commodities consumed, their expenditure, the share of expenditure and price paid for each commodity for urban and rural people are presented in Tables 1 through 6.

Food Commodities

Quantity and expenditure on rice first increased and then decreased with the rise of income per head. The people of lowest income class were living below subsistence level and when their income increased, they consumed more rice. But after certain level of income they spent less money on rice and consumed more rich food as well as non-food items. Unlike in rural area, in urban area quantity decreased at a faster rate than expenditure with the rise of income. On an average, rural people spent higher proportion of income on rice than urban people. The study corroborated the Engle's law that as income rises people (both urban and rural) spend less portion of their income on rice. The results also suggest that as a result of urbanization people tend to spend relatively less on rice and more on other items. Deb (1986) obtained similar results.

Both quantity and expenditure on wheat go up as income rise. In urban areas, however, they again decrease for the two top income classes. People generally prefer to consume rice instead of wheat because wheat is considered as an inferior food. In urban area, the reason for consuming larger quantity of wheat by middle class people is that they usually eat home prepared bread whereas the rich people purchase bread from the market. Unlike urban consumer, the rural consumers' share of wheat expenditure declines as income increases. Rural consumers spend about 1 percent of their expenditure on wheat compared to 2 percent of expenditure spent by urban consumers on the item. The per capita consumption of pulses in urban area was higher compared to that in rural areas. Pulses are not poor man's food as the rich consume more pulses than their poor counterparts. The prices paid for pulses were also higher for the rich people. This means that rich purchased high priced pulses such as lentil, mung etc. Unlike urban consumer, rural rich consumers consumed more potato in the selected area. Although quantity and expenditure on potato increased with increase in income, the share of total expenditure spent for potato decreased with rise in the income level.,

Both quantity and expenditure on vegetables increased with increase in income. However, expenditure increased at a faster rate than quantity. This means that rich people purchased high priced vegetables and thus revealed higher preference for quality than quantity. Since price of vegetables is not determined on the basis of nutrition it contains, it can not be concluded that the rich consumed more nutritious vegetables.

Consumption of spices generally increased with the rise in income for all income classes of rural and urban households. The study showed that the relatively affluent people spent more money on spices and they purchased high priced spices. The percentage of total expenditure for spices was roughly same for all income classes.

The expenditure on fish for the highest income class was three times higher than that for the lowest income class. However, the percentage of total expenditure spent on fish gradually declined, particularly in urban area as income increased. Meat includes all type of meat such as beef, mutton, chicken etc. Quantity consumed and expenditure on meat were positively related to the income of the consumer. Per head consumption of meat for the highest income class was five times higher than the consumption of the lowest income class. The rich purchased relatively high priced meat such as chicken or mutton as the price paid by them was higher.

As is expected, people consume more eggs due to increase in income. The percentage of total expenditure spent on egg was the same i.e.. 2 percent in both rural and urban areas.

Urban people consumed as much as double the milk consumed by rural people. On an average, more than 3 percent of consumers' budget was spent on purchasing milk and this varied slightly among the income classes. Edible oil mainly represented soybean oil. Quantity

consumed and expenditure on edible oil was found to be directly related to the income of the consumers. The share of edible oil in consumers' budget varied from 3 percent in rural area to 4 percent in urban area. The rich were found to purchase higher amount of sweet as well as higher priced sweets compared to the poor. The budget share of sweet also increased with the rise of income. Sugar consumption varied widely among different income classes. The highest income group's consumption was about four times higher in urban area and eight times higher in rural area than the consumption of the lowest income group.

As is expected, per capita quantity and expenditure on salt is roughly same for all income classes in urban area. However, in rural area salt consumption increased with the rise of income. This may have happened due to the fact that rural people used to feed salt to their livestock. As the rich possessed more number of livestock their per head salt consumption was higher.

On an average, 60 percent of expenditure was incurred on food items. The expenditure share of food was higher in rural than in urban area. Rahman and Hossain (1988) obtained similar result.

Non-food Commodities and Services

In this study, apart from food items, consumption data of non-food items such as soap, cloths, education and health care were collected. Like many food items, cost of these non-food items increased with the increase of consumers' income. However, non-food items' cost increased at a faster rate than food items' cost. If a consumer moves from the lowest to the highest income class his expenditure increased: for soap by 241 percent in urban area and 75 percent in rural area, for cloths by 1163 percent in urban and 226 percent in rural area, for education by 672 percent in urban and 648 percent in rural area, and for health care by 710 percent in urban and 507 percent in rural area. Percent of expenditure on these items increased with the increase of income, particularly in urban area.

IV. NUTRITIONAL STATUS

In terms of nutrients, the physiological requirements of the human body are protein, energy, vitamins and minerals. Energy, normally measured in calories, is provided mostly by carbohydrate and occasionally by fats and proteins. Within the broad categories of nutrients there are varying numbers and types of constituent elements which through their complex interaction, determine the overall nutritional status.

The consumption of nutrients from different food commodities in rural and urban areas and their percentage share of total nutrients are presented in Table 7. As is expected, rice is the single major source of calorie accounting for 72 percent and 63 percent of calorie intake in rural and urban areas respectively. The relatively higher contribution of rice to total calorie of rural people follows from their higher consumption of rice which may be attributed to the larger share of consumption from own production. Next to rice, edible oil was the second highest contributor to calorie for rural people; which is followed by pulses and potatoes. For urban consumers, oil constituted third major source of calorie. Egg supplied the least amount of calorie to the urban and rural people. The intake of protein was also the highest from rice constituting about 50 percent of total intake. Fat intake was obviously highest from edible oil in both rural and urban areas. But the percentage of fat contributed by edible oil was higher in urban than in rural area. The highest amount of mineral and vitamin B1 intake came from rice in both the areas.

All types of nutrient intakes increased with the increase of income (Table 8). However, the difference of calorie intake between higher and lower income classes was greater in urban than in rural areas.

V. INCOME ELASTICITIES

The values of income elasticities for selected food items for rural, urban and all households are presented in Table 9. The income elasticities of meat, sugar, education expenses and health care for rural consumers were more than one indicating that these were luxury commodities in rural area. On the other hand, vegetables, fish, egg, milk, edible oil, sweet, salt, soap and cloths could be considered as necessary commodities as their elasticities were less than unity in rural area. The elasticity coefficients for rice, wheat, pulses and potato were not statistically significant

The egg, cloths and health care are luxury commodities for urban people in the study area. All other selected commodities except wheat, potato, sugar and salt can be considered as necessary commodities for urban people. The coefficients of wheat, potato, sugar and salt are positive but not significant. One can say that these commodities are not inferior.

The findings of the study reveal that the quantity consumed or expenditure on foodgrain, potato and pulses did not increase much with rising income of the consumer both in rural and urban areas. However, changes in income had relatively greater impact on other commodities particularly fish, egg, meat, milk, sweet, cloths, education expenses and health care. These results conform to the national level finding of Samad and Hossain (1993). A 10 percent

increase in income would result in 2 to 5 percent rise in expenditure on the former commodities and 8 to 15 percent rise in that on the latter commodities. The elasticity coefficients for the urban households were relatively higher than those for the rural households, particularly in the case of pulses, vegetables, spices, eggs, milk, sweet, soap and cloths.

VI. CONCLUSIONS

The study revealed that the rural consumers consumed more rice and the urban people had relatively more non-rice and non-food items in their consumption bundle. The results also indicated that per capita demand for food in general and quality foods in particular would increase substantially with increase in per capita income. It was also observed that the difference between the poor and the rich in terms of nutrition intake was wider in urban than in rural area.

The results of the study have indicated that the quantities consumed or expenditures on foodgrain, potato and pulses did not increase much with rising income of the consumer both in rural and urban areas. On the other hand, changes in income would have greater impact on other commodities particularly fish, egg, meat, milk, sweet, cloths, educational expenses and health care.

These results have important implication for domestic production of the commodities and the overall economic development. Firstly, the demand for all commodities is likely to undergo rapid increase as the general level of income rises. Supply must increase correspondingly, if this rise in demand is to be met without excessive rise in prices. Secondly, the economy will not be induced to produce these commodities unless sufficient demand is created. Therefore, income of rural people in general and the poor in particular should be increased to raise the level of production leading to economic development.

Table 1. Monthly per capita quantity consumed of different commodities for different income classes in urban area.

Items	Consumption by income classes					All urban
	I	II	III	IV	V	
	< Tk 700	Tk 700-899	Tk 900-1199	Tk 1200-1999	Tk 2000 and above	
Rice	11.00	13.34	12.80	12.00	11.45	12.07
Wheat	1.30	1.98	2.93	1.94	1.54	1.94
Pulses	0.61	0.65	0.85	0.89	0.90	0.77
Potato	1.90	1.48	2.06	2.16	2.19	1.95
Vegetables	1.87	2.58	2.67	5.34	4.96	3.29
Spices	0.42	0.53	0.68	1.29	0.92	0.87
Fish	0.89	2.02	1.25	2.51	2.46	1.82
Meat	0.35	0.48	0.96	1.17	1.74	0.86
Egg (Nos.)	1.61	5.32	5.13	11.11	13.11	7.13
Milk	1.72	2.44	1.96	5.99	5.45	3.09
E. oil	0.34	0.56	0.68	0.93	1.35	0.73
Sweet	0.15	0.13	0.14	0.24	0.66	0.27
Sugar	0.24	0.41	0.52	0.67	0.83	0.52
Salt	0.47	0.41	0.57	0.54	0.50	0.50
Soap (Nos.)	0.86	1.31	1.68	1.89	3.83	1.88

Source: Field Survey

Table 2. Monthly per capita quantity consumed of commodities for different income classes in rural area.

Items	Consumption by income classes					All urban
	I	II	III	IV	V	
	< Tk 700	Tk 700-899	Tk 900-1199	Tk 1200-1999	Tk 2000 and above	
Rice	12.43	13.69	13.05	14.47	12.93	13.10
Wheat	0.75	0.67	1.02	0.27	1.43	0.77
Pulses	0.75	0.75	0.87	1.38	0.83	0.86
Potato	1.62	2.14	2.41	2.44	2.83	2.08
Meat	0.36	0.70	0.81	1.00	2.08	0.70
Egg (Nos.)	3.24	5.02	5.83	10.00	10.97	5.41
Milk	0.87	1.78	2.13	2.82	2.86	1.57
E. oil	0.25	0.37	0.36	0.64	0.93	0.38
Sweet	0.08	0.18	0.19	0.19	0.65	0.17
Sugar	0.18	0.23	0.36	0.54	1.00	0.32
Salt	0.63	0.87	0.85	1.07	1.36	0.82
Soap (Nos.)	0.96	1.94	1.50	1.67	1.76	1.41

Source: Field Survey

Table 3. Monthly per capita expenditure on various commodities for different income classes in urban area.

(Tk/month)

Items	Income classes					All urban
	I < Tk 700	II Tk 700-899	III Tk 900-1199	IV Tk 1200-1999	V Tk 2000 and above	
Rice	133.96 (26.62)	177.66 (23.56)	171.16 (20.83)	163.98 (13.05)	153.04 (8.19)	158.60 (16.07)
Wheat	11.56 (2.30)	19.91 (2.65)	29.05 (3.54)	22.28 (1.77)	17.60 (0.94)	19.85 (2.01)
Pulses	15.38 (3.05)	16.73 (2.23)	24.38 (2.97)	26.58 (2.12)	28.90 (1.55)	21.88 (2.22)
Potato	15.54 (3.08)	11.88 (1.58)	17.26 (2.10)	17.98 (1.43)	18.53 (0.99)	16.19 (1.64)
Vegetables	12.39 (2.46)	17.22 (2.29)	26.27 (3.20)	54.38 (4.33)	49.18 (2.63)	33.96 (2.46)
Spices	15.43 (3.06)	20.65 (2.75)	20.75 (2.53)	29.73 (2.36)	43.76 (2.34)	24.88 (2.52)
Fish	55.74 (11.07)	80.61 (10.73)	77.87 (9.48)	118.24 (9.41)	156.79 (8.40)	93.39 (9.46)
Meat	19.40 (3.85)	32.68 (4.35)	61.38 (7.47)	81.67 (6.50)	140.40 (7.52)	62.51 (6.33)
Egg	4.44 (0.88)	15.18 (2.02)	13.83 (1.68)	37.71 (3.00)	41.71 (2.23)	20.76 (2.10)
Milk	19.63 (3.90)	36.74 (4.89)	27.21 (3.31)	54.45 (4.34)	67.52 (3.62)	38.76 (3.93)
E. oil	18.51 (3.68)	32.05 (4.27)	34.55 (4.21)	51.82 (4.13)	78.17 (4.19)	40.52 (4.10)
Sweet	5.17 (1.02)	7.14 (0.95)	9.14 (1.11)	13.25 (1.05)	41.77 (2.24)	13.97 (1.41)
Sugar	7.31 (1.45)	12.32 (1.64)	16.27 (1.98)	20.04 (1.60)	24.66 (1.32)	15.39 (1.56)
Salt	4.18 (0.83)	3.32 (0.47)	4.97 (0.61)	4.97 (0.40)	4.87 (0.26)	4.49 (0.46)
Soap	8.89 (1.76)	13.84 (1.84)	14.48 (1.76)	20.33 (1.62)	30.29 (1.62)	16.67 (1.68)
Cloth	35.98 (7.14)	55.60 (7.40)	47.52 (5.78)	78.97 (6.29)	202.63 (10.85)	77.73 (7.87)
Education	24.59 (4.88)	71.36 (9.50)	65.18 (7.93)	100.95 (8.04)	189.83 (10.16)	83.50 (8.46)
Health	13.06 (2.59)	32.84 (4.37)	34.23 (4.17)	32.54 (2.59)	106.05 (5.68)	40.34 (4.08)
Total cost	503.25 (100.00)	751.45 (100.00)	821.52 (100.00)	1256.02 (100.00)	1867.54 (100.00)	986.95 (100.00)

Note : Figures in the parentheses represent percent of total expenditure.

Table 4. Monthly per capita expenditure on various commodities for different income classes in rural area.

(Tk/month)

Items	Income classes					
	I < Tk 700	II Tk 700-899	III Tk 900-1199	IV Tk 1200-1999	V Tk 2000 and above	All rural
Rice	198.94 (37.69)	218.37 (30.88)	219.49 (26.49)	230.93 (19.27)	199.71 (10.69)	211.49 (27.27)
Wheat	7.45 (1.41)	6.67 (0.94)	10.20 (1.23)	2.67 (0.23)	14.29 (0.76)	7.66 (0.98)
Pulses	16.28 (3.08)	22.56 (3.19)	26.62 (3.21)	44.96 (3.88)	31.21 (1.67)	24.19 (3.12)
Potato	13.12 (2.49)	17.83 (2.52)	19.50 (2.35)	19.92 (1.72)	22.64 (1.21)	16.82 (2.16)
Vegetables	24.42 (4.63)	30.32 (4.29)	33.37 (4.03)	51.63 (4.46)	45.00 (2.40)	32.04 (4.13)
Spices	15.93 (3.02)	21.13 (2.99)	20.69 (2.50)	32.75 (2.83)	25.66 (1.37)	20.63 (2.66)
Fish	43.31 (8.21)	60.65 (8.58)	79.74 (9.62)	119.00 (10.27)	112.05 (6.00)	67.88 (8.75)
Meat	21.37 (4.05)	41.73 (5.90)	51.07 (6.18)	65.20 (5.63)	128.84 (6.90)	42.98 (5.54)
Egg	10.25 (1.94)	15.31 (2.16)	17.85 (2.15)	29.60 (2.55)	35.36 (1.89)	16.65 (2.14)
Milk	13.98 (92.65)	32.16 (4.55)	30.58 (3.69)	45.06 (3.89)	45.67 (2.44)	25.14 (3.24)
E. oil	15.07 (2.86)	21.46 (3.03)	20.85 (2.52)	39.55 (3.41)	52.00 (2.78)	22.55 (2.91)
Sweet	3.47 (0.66)	8.49 (1.20)	11.42 (1.38)	23.30 (2.01)	39.10 (2.09)	10.53 (1.36)
Sugar	6.89 (1.31)	7.68 (1.09)	13.27 (1.60)	21.19 (1.83)	40.18 (2.15)	11.94 (1.54)
Salt	5.06 (0.96)	7.32 (1.04)	6.83 (0.82)	8.39 (0.72)	10.86 (0.58)	6.62 (0.85)
Soap	8.19 (1.55)	14.69 (2.08)	13.67 (1.65)	15.75 (1.36)	14.32 (0.76)	11.97 (1.54)
Cloth	33.13 (8.28)	42.42 (6.00)	43.62 (5.29)	60.83 (5.29)	107.87 (5.77)	44.60 (5.75)
Education	29.14 (5.52)	24.48 (3.46)	89.66 (10.82)	101.33 (8.75)	217.86 (11.66)	60.29 (7.77)
Health	12.79 (2.42)	23.28 (3.29)	29.33 (3.54)	108.33 (9.35)	77.68 (4.16)	33.80 (4.35)
Total	527.82 (100.00)	707.24 (100.00)	828.47 (100.00)	1158.70 (100.00)	1667.65 (100.00)	775.53 (100.00)

Note: Figures in the parentheses represent percent of total expenditure.

Source: Field Survey

Table 5. Price of different commodities for different income classes in urban area.

(Tk/Kg)

Items	Income classes					All urban
	I < Tk 700	II Tk 700- 899	III Tk 900- 1199	IV Tk 1200- 1999	V Tk 2000 and above	
Rice	12.18	13.31	13.37	13.66	13.36	13.14
Wheat	8.90	10.05	9.91	11.48	11.42	10.23
Pulses	25.21	25.73	28.68	29.86	36.12	28.41
Potato	8.18	8.03	8.37	8.32	8.46	8.30
Vegetables	6.62	6.67	9.83	10.18	9.91	10.32
Spices	36.73	38.96	30.51	23.03	47.56	28.60
Fish	62.63	39.90	62.30	47.10	63.73	51.31
Meat	55.42	68.08	63.94	69.80	80.68	72.68
Egg (Tk/No.)	2.75	2.85	2.69	3.34	3.18	2.91
Milk	11.41	15.06	13.88	9.09	12.38	12.54
E. oil	54.44	57.23	50.80	55.72	57.90	55.50
Sweet	34.47	54.92	65.28	55.21	63.29	51.74
Sugar	30.45	30.04	31.28	29.91	29.71	29.60
Salt	8.89	8.58	8.71	9.20	9.74	8.98
Soap (Tk/No.)	10.33	10.56	8.61	10.75	7.90	8.87

Source: Field Survey

Table 6. Price of different commodities paid by different income classes in rural area.

(Tk/Kg)

Items	Income classes					All urban
	I <Tk 700	II Tk 700- 899	III Tk 900-1199	IV Tk 1200- 1999	V Tk 2000 and above	
Rice	16.00	15.95	16.82	15.95	15.44	16.14
Wheat	10.06	9.95	10.00	9.88	9.99	9.95
Pulses	21.70	30.08	30.60	32.58	37.60	28.12
Potato	8.09	8.33	8.03	8.16	8.00	8.16
Meat	59.36	59.61	63.05	65.20	61.96	61.40
Egg (Tk/No.)	3.16	3.04	3.08	2.96	3.22	3.07
Milk	16.06	18.27	14.35	15.98	15.97	16.01
E. oil	60.28	58.00	57.92	61.80	55.91	59.34
Sweet	43.37	47.17	60.11	122.63	60.15	61.94
Sugar	38.28	33.39	36.88	39.24	40.18	37.31
Salt	8.03	8.41	8.03	7.84	7.98	8.07
Soap (Tk/No.)	8.53	7.57	9.11	9.43	8.14	8.48

Source: Field Survey

Table 7. Per capita daily intake of nutrients from different major food commodities by all income classes in rural and urban areas.

Items	Consumption of nutrients from food commodities				
	Calorie (k. cal)	Protein (gram)	Fat (gram)	Minerals (gram)	Vitamin B-1 (mg)
Rural Areas					
Rice	1593.83 (72.43)	27.94 (55.65)	1.74 (8.48)	30.56 (87.33)	0.91 (65.94)
Wheat	87.52 (3.98)	3.10 (6.17)	0.43 (2.09)	0.69 (1.97)	0.12 (8.70)
Pulses	98.32 (4.47)	7.19 (14.32)	0.20 (0.97)	0.60 (1.71)	0.20 (14.49)
Potato	66.60 (3.02)	1.09 (2.17)	0.41 (1.99)	0.41 (1.17)	0.02 (1.45)
Meat	26.60 (1.20)	5.27 (10.50)	0.60 (2.92)	0.23 (0.66)	0.03 (2.17)
Egg	16.29 (0.74)	1.21 (2.41)	1.23 (5.99)	0.09 (0.26)	0.01 (0.72)
Milk	35.06 (1.59)	1.67 (3.32)	2.14 (10.43)	0.41 (1.17)	0.02 (1.45)
E. oil	114.00 (5.18)	-	12.66 (61.69)	-	-
Sugar	42.45 (1.93)	-	-	0.10 (0.28)	-
Total of 9 items	2080.67 (94.54)	47.46 (94.54)	19.40 (94.56)	33.09 (94.55)	1.31 (94.92)
All foods	2200.57 (100.00)	50.20 (100.00)	20.52 (100.00)	20.52 (34.99)	1.38 (100.00)
Urban Areas					
Rice	1468.51 (63.35)	25.74 (47.70)	1.60 (4.55)	2.81 (40.72)	0.84 (59.15)
Wheat	220.51 (9.51)	7.82 (14.40)	1.09 (3.10)	1.74 (25.22)	0.31 (21.83)
Pulses	88.03 (3.80)	6.44 (11.93)	0.17 (0.48)	0.53 (7.68)	0.11 (7.75)
Potato	63.05 (2.72)	1.04 (1.93)	0.39 (1.11)	0.39 (5.65)	0.02 (1.42)
Meat	32.68 (1.41)	6.47 (11.99)	0.74 (2.10)	0.28 (4.06)	0.04 (2.81)
Egg	21.72 (0.94)	1.62 (3.00)	1.64 (4.66)	0.12 (1.74)	0.01 (0.70)
Milk	69.01 (2.97)	3.29 (6.09)	4.22 (12.00)	0.82 (11.88)	0.05 (3.52)
E. oil	219.00 (9.45)	-	24.33 (69.15)	-	-
Sugar	68.98 (2.97)	-	-	0.02 (0.29)	-
Total of 9 items	2251.49 (97.12)	52.42 (97.13)	34.78 (97.15)	6.71 (97.24)	1.38 (97.18)
All foods	2317.85 (100.00)	53.96 (100.00)	(35.18) (100.00)	6.90 (100.00)	1.42 (100.00)

- Notes:** 1. Figures in the parentheses are percentage of total nutrient intake.
2. Nutrients from all foods have been calculated by converting the proportion of food items in the total food intake into whole proportion. The actual proportion of the nine food items in the total food intake was obtained from the Household Expenditure Survey Report (1988-89).

Table 8. Per capita daily intake of nutrients according to income classes in rural and urban areas.

Income classes	Consumption of nutrients from food commodities				
	Calorie (K.Cals)	Protein (gram)	Fat (gram)	Minerals (gram)	Vitamin B-1 (mg)
Rural Areas					
< Tk 700	1965.24	40.50	13.57	5.09	1.221
Tk 700-899	2241.38	50.32	20.37	5.82	1.33
Tk 900-1199	2266.15	53.03	21.07	6.31	1.375
Tk 1200-1999	2562.26	60.58	32.99	6.67	2.533
Tk 2000 +	2604.77	64.22	41.91	6.90	1.4992
Urban Areas					
< Tk 700	1858.18	40.59	17.34	5.27	1.17
Tk 700-899	2349.28	51.56	27.78	6.74	1.462
Tk 900-1199	2494.26	59.48	32.21	7.76	1.63
Tk 1200-1999	2503.39	61.45	46.38	8.45	1.52
Tk 2000 +	2557.53	62.98	61.76	7.61	1.44

Source: Field Survey

Table 9. Income elasticities of different commodities in rural and urban areas.

Items	Urban	Rural
Rice	0.354*	-0.106
Wheat	0.220	0.330
Pulses	0.569**	0.362
Potato	0.299	0.299
Vegetables	0.607*	0.324*
Spices	0.714**	0.269
Fish	0.824**	0.850**
Meat	0.907**	1.023**
Egg	1.158**	0.864**
Milk	0.821**	0.536
E. oil	0.562**	0.685*
Sweet	0.952**	0.649*
Sugar	0.119	1.005**
Salt	0.188	0.426*
Soap	0.794**	0.586**
Cloth	1.109**	0.644**
Education	0.893**	1.309**
Health 0.354**	1.147**	201**

* Significant at 5 percent level.

** Significant at 1 percent level.

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