

# Changes in Food Consumption in Bangladesh

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## Introduction

Bangladesh is a chronically food importing country. In 1974-75 to 1983-84 the country produced 11.2 million to 15.5 million tons of rice and wheat and imported 800000 to 2.8 million tons of rice and wheat annually<sup>1</sup>. If the present trends in production and demography continue, the country will need an additional 1.8 million tons of food grain in 1990 to feed the country's estimated 113 million population with a targetted 450 grams of food grain per capita daily<sup>2</sup>. One way to reduce the food gap, it is often argued, is through the diversification of national food habit. It is argued that changes in food habit through the diversification of food intake would reduce the country's present high dependence on rice and wheat, which would reduce the import requirement for food grains and make the country gradually self sufficient in food<sup>3,4</sup>.

In this paper the per capita daily food intake in 1962-64 and 1981-82 are studied to find out the changes that took place in the intake behaviour of the urban and rural population during the period and to delineate the changes in food habits in the country. Section 2 presents the data sources, section 3 analyses the food intakes and section 4 presents the conclusions.

## Data

In 1962 - 64 the Bangladesh's first national nutrition survey was conducted in what was then East Pakistan.<sup>5</sup> The survey provided food intake data by rural urban breakup. A

second survey was conducted in 1975-76<sup>6</sup> and a third survey was conducted in 1981-82<sup>3</sup>. Since the latter two surveys did not supply urban data, the surveys are not considered here. In this study the 1962-64 data were collected from the Nutrition Survey of East Pakistan<sup>5</sup> and the 1981-82 data are taken from the Household Expenditure Survey of the Bangladesh Bureau of Statistics<sup>7,8</sup>.

## Food Intake

The per capita daily food intake in 1961 - 64 and 1981-82 are shown in table 1. The percentage changes in food intake are shown in table 2. Over the nearly twenty years the average rural food intake decreased by 12% and the average urban food intake increased by 13%. In rural areas the consumption of wheat increased dramatically (196%) with smaller increases in sugar and gur and milk intakes, and the intakes of all other foods decreased. The intake of the preferred cereal, rice decreased by 20%, pulse intake decreased by 52%, and fish intake decreased 14%. Meat, egg, potato and sweet potato, and mustard and soyabean oil intake all decreased by 12- 37% but from a low base. More or less the opposite happened in urban areas. In urban areas the intakes of pulse, meat, fish, egg, milk and fruits decreased by 15-51% whereas the intake of rice increased 16%, wheat intake increased 83%, potato and sweet potato intake increased 36% and vegetables intake increased 9%. A distinct change occurred in the behaviour of meat intake in both rural and urban areas.

Table 1. *Per Capita Daily Food Intake in Rural and Urban Areas in 1962 - 64 and 1981 - 82.*

Food	Rural				Urban			
	1962-64		1981-82		1962-64		1981-82	
	gms	%	gms	%	gms	%	gms	%
Rice	505.1	60.1	403.8	54.6	312.2	43.0	362.5	44.0
Wheat	18.4	2.2	54.4	7.4	46.6	6.4	85.2	10.3
Potato	49.8*	5.9	22.1	3.0	26.2*	3.6	33.8	4.1
Sweet Potato			10.3	1.4			1.9	0.2
Pulses	25.0	3.0	12.0	1.6	24.5	3.4	18.6	2.3
Vegetables	123.0	14.6	122.0	16.5	123.6	17.0	135.0	16.4
Mutton	0.9	0.1	0.4	a	6.7	0.9	3.2	0.4
Beef	2.4	0.3	1.4	0.2	5.4	0.8	5.9	0.7
Poultry	2.4	0.3	2.0	0.3	7.3	1.0	3.9	0.5
Fresh Fish	31.3	3.7	26.8	3.6	41.3	5.8	35.0	4.2
Egg	1.6	0.2	1.0	0.1	2.5	0.3	1.8	0.2
Milk	15.9	1.9	16.2	2.2	52.3	7.2	25.5	3.1
Mustard Oil	5.8	0.7	4.5	0.6	11.8	1.6	11.5	1.4
Soyabean Oil			0.6	0.1			7.1	0.9
Sugar & Gur	5.6	0.7	8.9	1.2	11.7	1.6	14.6	1.8
Fruits	10.2	1.2	9.9	1.3	17.5	2.4	13.6	1.6
Miscellaneous	43.3	5.1	43.8	5.9	36.5	5.0	65.3	7.9
All Foods	840.7	100.0	740.1	100.0	726.1	100.0	824.4	100.0

Source: (1) 1962-62 : USDHEW (1966)

(2) 1981 - 82: BBS (1986)

\* Includes sweet potato

'a' Less than 0.1

Of the meat, beef and poultry were preferred equally in rural areas whereas beef was the least preferred food in urban areas in 1962 - 64. In 1981-82 beef intake decreased by 25 percentage points more than the poultry intake in rural areas and its intake was the highest in urban areas. This may reflect differing demographic, religious or economic profiles between rural and urban populations. Soyabean oil is a recent introduction

in the country. Its intake was not registered in 1962-64 and even in 1981- 82 its intake was limited mostly to the urban areas only. Comparing consumption between urban and rural locations, the average urban intake was 14% lower in 1962 - 64 than the average rural intake. Rice intake was 38% lower, potato and sweet potato intake was 47% lower, and pulse intake was 2% lower. The

intake of all other foods were higher (Table 2). By contrast, by 1981-82 the urban intake was 11% higher. Rice intake which had been 38% lower in 1962-64 was now 10% lower and the intakes of all other foods were higher.

Table 2. *Percentage Change in Food Intake in Rural and Urban Areas.*

Food	Intake in 1981-82 as % of 1962-64		Urban intake as % of rural intake	
	Rural	Urban	1962-64	1981-82
Rice	- 20.1	16.1	- 38.2	- 10.2
Wheat	195.7	82.8	153.3	56.6
Potato & Sweet Potato	- 34.9	36.3	- 47.4	10.2
Pulses	-52.0	-24.1	- 2.0	55.0
Vegetables	- 0.8	9.2	0.5	10.7
Meat	- 33.3	-33.0	240.4	242.1
Fresh Fish	- 14.4	- 15.3	31.9	30.6
Egg	- 37.5	- 28.0	56.2	80.0
Milk	1.9	- 51.2	228.9	57.4
Mustard & Soyabean Oil	- 12.1	57.6	103.4	264.7
Sugar & Gur	58.9	24.8	108.9	64.0
Fruits	- 2.9	- 22.3	71.6	37.4
Miscellaneous	1.2	78.9	- 15.7	49.1
All Foods	- 12.0	13.5	- 13.06	11.4

Source : Table 1

In 1962 - 64 an average rural meal contained 60% rice, 15% vegetables, 6% potato and sweet potato, 4% fish, 3% pulse, 2% wheat and 2% or less of other foods, and an average urban meal contained 43% rice, 17% vegetables, 6% wheat, 6% fish, 7% milk, 4% potato and sweet potato, 3% pulse, 3% meat and 2% or less of other foods. The structure of the meals were almost unchanged in 1981-82. In 1981 - 82 rice's share reduced by 5 percentage points and wheat's share increased by 5 percentage points in rural areas, and wheat's share increased by 4 percentage points and milk's share reduced by 4 percentage points in urban areas. Changes in the shares of the

other foods were even smaller.

## Conclusions

### *The study has two major conclusions*

1. In 1962 - 64 per capita daily food intake in urban areas was 13% lower than the rural areas. By 1981-82 the average food intake in rural areas had decreased by 12% and the average food intake in urban areas increased by 14%. As a result, in 1981-82 the average food intake in urban areas was 11% higher than the rural areas. The decline in rural food intake was mainly due to the decline in the intakes of rice, potato and sweet potato, pulses and fish although wheat intake increased appreciably. The increase in urban food intake was mainly caused by a high increase in the intakes of rice, wheat, potato

and sweet potato and vegetables while the intakes of pulse, meat, fish and milk fell appreciably. Since rural occupations often require hard labour, high food intake in rural areas is generally justified. The decline in rural food intake while urban food intake is rising represents an alarming situation. To the extent the present nutrition policies are carried into the future the future food intake would also show a similar discriminatory trend.

2. Although several changes took place in the level of food intake in rural and urban areas in 1962-64 to 1981-82, the broad structure of the meals were unchanged during the period. Rice had been the major food distantly followed by vegetables. Recently wheat had gained some importance but percentage wise its contribution was small. Lack of initiatives to change food habit was probably responsible for this invariant condition. Food habits are said to change slowly and do not always respond in a way that accessibility and availability would suggest. If food gap is to be reduced by diversification of food habit, effective policy and programme initiatives for changing food habits are necessary.

### Abstract

This paper analyses the per capita daily food intake in 1962 - 64 and 1981-82 for rural and urban areas of Bangladesh to demonstrate changes in food intake and food habits. In 1962-64 urban food intake was 13% lower than the rural food intake. Between 1962 - 64 and 1981 - 82 rural food intake decreased by 12% and urban food intake increased by 13%. As a result, in 1981-82 urban food intake was 11% higher than the rural food intake. The decline in rural food intake was mainly due to the high decline in the intake of rice, potato and

sweet potato, pulses and fish, and the increase in urban food intake was mainly due to a marked increase in the intake of rice, wheat, potato and sweet potato, and vegetables.

Food habits appeared to change little over the period. Rice was consistently the major food distantly followed by vegetables. During the 20 year period wheat gained some importance in the diet but percentage wise its contribution to total food intake was still small. If the food gap is to be reduced by diversification of the national diet effective policies and programmes to change food habit are essential prerequisites.

### References

1. Bangladesh Bureau of Statistics (BBS), 'Statistical Year Book of Bangladesh 1984 -85', Government of Bangladesh, Dhaka, 1985.
2. The estimate is based on the Bangladesh's Planning Commission's consumption target of 16 oz or 454 gm per capita per day. See Ministry of Planning, Government of Bangladesh, 'The Third Five Year Plan 1985-90', Dhaka, 1985.s
3. Ahmad, K. and Hassan, N. ed. 'Nutrition Survey of Rural Bangladesh 1981-82', Institute of Nutrition and Food Science, University of Dhaka, 1983.
4. Mowlah, Golam and Malck, M. A., 'Millet Production Environment and its Importance as a Source of Food and Nutrition,' Bangladesh Journal of Nutrition, Vol. 2, No. 1, 1988.
5. US Department of Health, Education and Welfare (USDHEW), 'Nutrition Survey of East Pakistan March 1962 - January 1964', 1966.
6. Ahmad, K., Huda, N., Sabar, A. Abdullah, M., Karim, R., Chowdhury, M. M., Hassan, N., Hussain, M. A. and Reiner, M. L. ed., 'Nutrition Survey of Rural Bangladesh 1975 - 76', Institute of Nutrition and Food Science, University of Dhaka, 1977.
7. Bangladesh Bureau of Statistics (BBS), 'Report of the Bangladesh Household Expenditure Survey 1981 - 82', Government of Bangladesh, Dhaka, 1986.
8. The data for 1962-64 were collected from a statistically representative sample of 1705 rural households by weighing method, and the data for 1981-82 were collected from a statistically representative sample of 5949 households by recall method. Although the method of data collection differed in the two surveys, since in both the surveys data were collected from statistically representative samples the data are comparable with each other.