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Research Note

IMPACT OF RICE AND WHEAT PRICE CHANGES ON THE POOR IN SOME SELECTED *MONGA* AFFECTED AREAS OF BANGLADESH: FIELD EVIDENCE FROM GAIBANDHA DISTRICT

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ABSTRACT

The study evaluated the impact of price hike on food consumption of the poor and the performance of safety net programmes in the targeted *monga* affected areas *(monga* means season of very low employment in September/October, which led to famine like situation in the past). Primary data were collected from a sample of 90 poor households from four villages selected purposively from Gobindaganj Upazila of Gaibandha district, considering the traditional incidence of *monga* in the area. The sample households included 30 female headed households, 30 farm labour households and 30 non-farm labour households. Secondary data revealed that daily food consumption of the female headed households, farm labour households and non-farm labour households was reduced by about 334 gm, 540 gm and 480 gm, respectively due to price hike. Average daily per capita consumption of food was reduced by about 88 gm for female headed households, 133 gm for farm labour households and 200 gm for non-farm labour households. The average total food consumption was reduced by about a half kg of food per family per day, while per day per capita average consumption was reduced by about141 gm for all households. The poor households tried to minimize the effect of the *monga* and price increase through various coping strategies such as borrowing on hard terms, selling labour at minimal wages, harvesting crops early, selling assets for low price, lowering family expenditures than required, eating less food than minimum nutrition requirements and often skipping entire meals. Access to social safety net programmes had positive impact on livelihood of the respondent households during the period of rising food prices. Based on the findings, some recommendations were made for improving food security situation of the *monga* affected people.

I. INTRODUCTION

The increase in the price of food in 2007/08, especially rice, had been a critically important issue in Bangladesh as a net importer of food. The price of food grains had closely followed

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the trend of international markets. The result of this unusually high rate of food price inflation had worsened poverty situation in the country. According to the World Bank, four million people have been pushed below the poverty line due to abnormal rise in food price. Between January 2007 and March 2008, the gross income of the poor decreased by 36.7 percent mainly due to surge of food items, pushing 2.5 million households below the poverty line (Ahmed, 2008). Department of Agricultural Marketing (DAM) and National Food Policy Capacity Strengthening Programme (NFPCSP) estimated that the national wholesale price of rice increased from Tk 15.9 per kg in January 2006 to Tk 30.8 per kg in August 2008. That is an increase of over 94% during this period. The domestic rice price rise was however lower than the global prices. The FAO world rice price index during January-November 2007 to January-November 2008 increased by almost 95% in US$, while the increase in domestic wholesale rice price of Bangladesh was just over 52% during the same period (FAO, 2008).

According to the estimates of the Centre for Policy Dialogue (CPD) an additional 8.5% of households had actually fallen below the poverty line because of the high food inflation. However, they concluded that the cumulative impact of high inflation (particularly the weighted inflationary impact of the price of rice) had resulted in significant income erosion of the low-income groups in Bangladesh. As a result, an additional 2.5 million people fell below poverty line during the 15 month period of high price regime (CPD, 2007). NFPCSP estimates that the national wholesale price of wheat increased from Tk 14.1 per kg in January 2006 to Tk 29.1 per kg in August 2008 which was an increase of over 106% during this period. NFPCSP estimates for domestic wholesale wheat price rise during JanuaryNovember 2008 was 38.1% against a global rise of 38.7% during the same period (FAO. 2008). A quick survey of 120 rickshaw pullers and agricultural wage labourers showed that 72% of these poor households did not only consumed lesser quantity of foods but also lower quality rice and other foods (Mandal, 2008).

A number of studies were conducted on different aspects of global food price increases in relation to food security of the poor (Braun, 2008; Sherif and Khader, 2008; Haseen, 2007; Ninno, 2007; Hossain, 2005; Paulillo, 2005; Stang and Kossover, 2005; Vyas, 2005; Gentilini, 2004; Zug, 2006). While these studies made general conclusion about a net worsening effect of food price surge in terms of low nutritional status or increased vulnerability of the poor, there were little empirical insights about the magnitude of variations in food consumptions and the coping strategies pursued by the different occupational categories of the poor.

The focus of this study is to examine the impact of the rising price of food on food consumption by the poor households living in rural areas, especially in poorer parts of the *monga* affected areas of Gaibandha district during 2007 and 2008. The specific objectives of the study are: (i) to measure the difference between food consumption before and after the rice/wheat price increases; (ii) to determine the strategies of the targeted *monga* affected households to cope with the food price increases; and (iii) to assess the performance of safety net programmes in the targeted *monga* affected areas.

II. METHODS

The study is mainly based on primary data, which were collected by the researcher herself through direct interview of the sample households. The survey was conducted in four villages namely Kazipara, Kamarpara, Fakirpara and Bishpukur in Rakhalburuz union under Gobindaganj upazila of Gaibandha district. In total 90 households were purposively selected and the sample included 30 female headed households (widow or divorced), 30 farm labour households (agricultural day labour, tenant farmers, fishermen) and 30 non-farm labour households (rickshaw/van pullers, tailor, carpenters, small traders). Finally, descriptive and statistical analyses were done by using different statistical techniques to fulfill the objectives of the study. To compare the variation in food consumption for the different sample groups, 'before' and 'after' food price comparison, paired 't' test were employed.

III. IMPACT OF PRICE RISE ON FOOD CONSUMPTION

In this study, the average family size was 3.69 for three selected groups of households, while average family size was 2.73 for female-headed households, 4.43 for farm labour households and 3.9 for non-farm labour households. The average family size of the selected female-headed households had smaller size of family (Nahar, 2009).

Table 1. Changes of food consumption by selected groups of *Monga* affected households before and after food price increases

Food Items	Mean difference	Standard error of mean difference	t-value	p-value
Rice (kg/day)	0.35	0.02	17.90	0.00
Flour (kg/year)	-1.62	1.06	-1.54	0.13
Potato (kg/week)	-0.39	0.02	-16.27	0.00
Vegetables (kg/week)	0.24	0.02	16.09	0.00
Leafy vegetables (kg/week)	0.07	0.03	2.02	0.05
Pulses (kg/month)	0.06	0.01	4.34	0.00
Dry fish (gm/month)	47.83	2.92	16.40	0.00
Small fish (gm/week)	185.56	12.09	15.35	0.00
Big fish (kg/month)	0.19	0.01	23.18	0.00
Egg (No/month)	1.85	0.06	30.63	0.00
Chicken (kg/year)	1.65	0.07	23.58	0.00
Beef (kg/year)	0.98	0.07	15.02	0.00
Mutton (kg/year)	0.11	0.03	3.19	0.00
Edible oil (Litre/week)	0.08	0.01	6.57	0.00
Milk (Litre/year)	0.07	0.05	1.42	0.16
Fruits (kg/month)	0.00	0.00	0.58	0.57
Total consumption (gm/hh/day)	451.56	21.95	20.57	0.00
Per capita Consumption (gm/day)	141.62	8.89	15.93	0.00

Source: Field Survey, (2009).

This study focused on the impact of rice and wheat price changes on food consumption of the selected *monga* affected households between before (December 2006-November 2007) and after (December 2007-November 2008) food price increase. The households reduced their consumption of major food items. The results showed that the households did not cut the consumption of *ata,* rather they increased its consumption, because of higher rice price than that of *ata*. Every household increased their potato consumption, because price of potato was fell due to increase of potato production during the increase of price. Most of the selected poor households consumed fruits and milk from domestic supply and there was no impact of price increase on fruits and milk consumption (Table 1).

Table 2. **Changes of food consumptions by different groups of households due to price increase**

Food Items	Mean differences			
	Female headed households	Farm labour households	Non-farm labour households	All households
Rice (kg/day)	0.25	0.43	0.38	0.35
Flour (kg/year)	0.40	-L60*	-3.67*	-1.62*
Potato (kg/week)	-0.48	-0.47	-0.23	-0.39
Vegetables (kg/week)	0.21	0.26	0.26	0.24
Leafy vegetables _ (kg/week)	-0.11	0.08	0.23	0.07
Pulses (kg/month)	0.09	0.07	0.02	0.06
Dry fish (gm/month)	38.33*	55.83*	49.33*	47.83*
Small fish (gm/week)	230.00*	217.50*	109.17*	185.56*
Big fish (kg/month)	0.24	0.23	0.12	0.19
Egg (No./month)	1.90*	2.10*	1.55*	1.85*
Chicken (kg/year)	1.72*	1.80*	1.43*	1.65*
Beef (kg/year)	0.87*	1.27*	0.80*	0.98*
Mutton (kg/year)	0.30	0.00	0.02	0.11
Edible oil (Litre/week)	0.09	0.11	0.05	0.08
_ Milk (Litre/year)	0.00	0.20	0.00	0.07
Fruits (kg/month)	0.00	0.00	0.00	0.00
Per household total consumption (gm/ day)	334.16*	540.20*	480.32*	451.56*
Per capita consumption (gm/day)	88.03*	133.63*	203.20*	141.62*

Source: Field survey, (2009).

Note: * indicates significant difference between before and after price increases.

Rice consumptions were decreased by the female-headed households, farm households and non-farm households by 0.25 kg/day, 0.43 kg/day and 0.38 kg/day, respectively. Due to price increase total consumptions by female headed households, farm labour households and nonfarm labour households were reduced by 334 gm, 540 gm, 480 gm food a day respectively. Per day per capita consumption was reduced by about 88 gm by female headed households, 133 gm by farm labour households and 200 gm by non-farm labour households (Table 2). The

average total consumption was reduced by about a half kg of food a day while per day per capita average consumption was reduced by about 141 gm for all households. So, the negative impact of price increase on household total consumption of food was evident.

Table 3. Strategies of households to cope with the food price hike

Coping strategies	Female headed households (30)		Farm labour households (30)		Non-farm labour households (30)	
	No.	Mean (Tk)	No.	Mean (Tk)	No.	Mean (Tk)
Selling household utensils	4 (13.33)	800	3 (10.00)	500	2 (6.67)	400
Selling small piece of land	0	0	1 (3.33)	8000	1 (3.33)	7000
Help from friends/relatives	5 (16.67)	500	4 (13.33)	600	3 (10)	500
Borrowed money from NGOs/banks/relatives	16 (53.33)	3000	20 (66.67)	5000	19 (63.33)	6000
Borrowed money from money lenders	4 (13.33)	1200	2 (6.67)	1500	2 (6.67)	1800
Selling livestock and poultry	23 (76.67)	500	20 (66.67)	800	16 (53.33)	550
Selling trees	2 (6.67)	200	5 (16.67)	350	2 (6.67)	500
Selling furniture/vehicle	0	0	1 (3.33)	1000	2 (6.67)	1500
Employment as maid servant	7 (23.33)	700/ 6 months	3 (10.00)	600/ 6 months	2 (6.67)	600/ 6 months

Source: Field survey (2009).
Note: Figures in the parentheses indicate percentages of total households of each category

IV. COPING STRATEGIES OF THE POOR

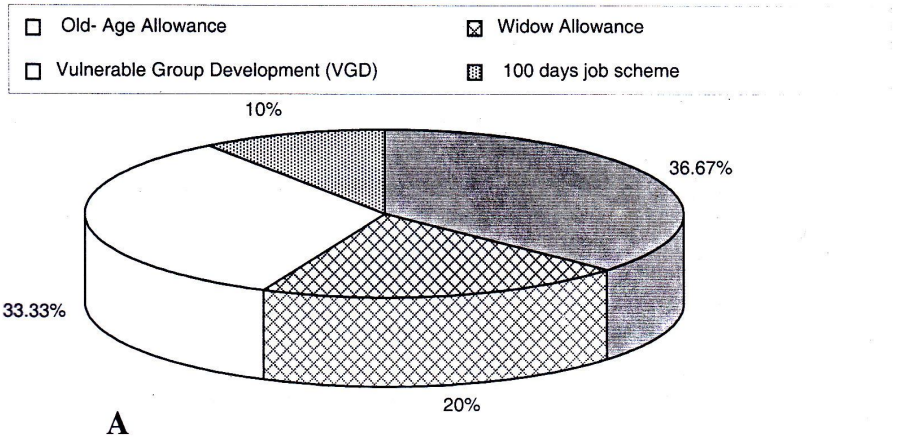
Those who suffered from *monga* were chronically poor, had little social connections and frequently served as clients under various relationships with local influential patrons. During *monga*, they took loans, accepted minimal wages, sold labour, and harvested early yet to mature crops and sold out household assets for low price. Poor people had to accept the conditions dictated by the patrons, because they were very needy in times of scarcity. Among the targeted three groups, the female-headed respondents were the most vulnerable. So, they were affected severely by the onslaught of price increase. About 13.33 percent female headed households, 10 percent of farm labour households, 6.67 percent of non-farm labour households sold household utensils to meet the emergency food requirements. About 3.33 percent farm labour households and 3.33 percent non-farm labours households reported that they had to sell whatever little amount of land they had in order to pat for food expenses. The 53.33 percent of female-headed households, 66.67 percent farm labour households and 63.33 percent of non-farm labour households reported borrowing money from NGOs, banks or

relatives to fulfill food requirements during price increase situation. Another major coping strategy pursued by the targeted *monga* affected households during food price escalation as to sell their livestock animals and poultry birds often at very low prices. The proportions of female headed, farm labour and non-farm labour households reporting distress selling of livestock and poultry birds were 76.67, 66.67 and 53.33 percent, respectively (Table 3).

Many people had to change their food intake in quality as well as quantity. People reduced the amount of food they consumed everyday in two ways. They either ate smaller meals or skipped whole meals. Results of the study with different families showed that food intakes were reduced by atleast a meal per day, while most of them consumed two or three meals during normal times. The most of the female-headed households gave their views in favour of reducing clothing expenses to less than normally required, while for farm labourer households and non-farm labourers the proportions were 93.33 and 80.0 percent, respectively. The respondent households also reported that they cut their medical expenses and educational expenses for children to cope with rising price situation.

V. PERFORMANCE OF SAFETY NET PROGRAMMES

The safety net programs created a path way towards poverty reduction in the long run. Figure 1 shows that the highest proportion of female-headed households (36.67 percent) was involved in Old- Age Allowance Programme, compared to farm labour and non-farm labour households. In case of Widow Allowance Programme, only 20 percent female-headed households were involved. The highest proportion of non-farm labour households (76.67 percent) were involved in Vulnerable Group Development (VGD) Programme, compared to female-headed households and farm labourers' households. The large number of farm labour households (70 percent) was involved in 100 days job scheme Programme, compared to female headed households and non-farm labourer households. About 100 percent of all categories of households responded that their food consumption increased due to involvement in safety net programme. About 62.22 percent of all groups of households receiving safety net support reported that their clothing expenses could be increased a little, while 37.78 percent reported clothing expenses unchanged (Fig. 1).



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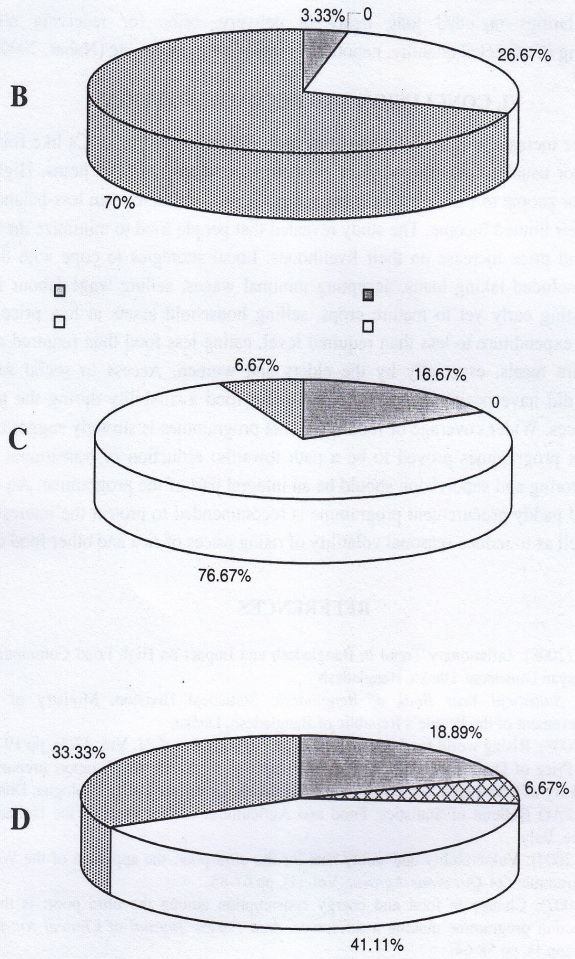

Fig. 1. Share of involvement in different safety net programmes of A) Female headed households, B) Farm labour households, C) Non-farm labour households, D) All groups selected *monga* affected households

It was evident that the positive impacts of safety net programme on livelihood patterns of all types of households had increased significantly. About 80 percent of all group households reported that there occurred many irregularities in implementing safety net programmes.

These irregularities included long delay in delivery, bribe for receiving allocation, underweighting of expected quantity, nepotism in inclusion of name, etc (Nahar, 2009).

VI. CONCLUSION AND RECOMMENDATIONS

The food price increase was a worldwide issue and was a concern for LDCs like Bangladesh where the poor usually spent larger share of their expenditure on food items. Higher food prices led poor people to limit their food consumption and shifted to even less-balanced diets because of their limited income. The study revealed that people tried to minimize the effect of the *monga* and price increase on their livelihoods. Local strategies to cope with the rising food prices included taking loans, accepting minimal wages, selling wage labour for extra hours, harvesting early yet to mature crops, selling household assets at low price, cutting down family expenditure to less than required level, eating less food than required and even skipping entire meals, especially by the elders and women. Access to social safety net programmes did have positive impact on improving food availability during the period of high food prices. Wider coverage of food safety net programmes is strongly suggested. Since the safety net programmes proved to be a path towards reduction of transitional poverty, regular monitoring and supervision should be an integral part of the programme. An effective and expanded paddy procurement programme is recommended to protect the interest of poor farmers as well as to reduce seasonal volatility of rising prices of rice and other food crops.

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