



Strengthening Social Safety Nets for Mitigating Adverse Impacts of Food Crisis in Bangladesh

Sajjad Zohir
Biva Arani Mallik
Sara Zabeen
Galib Ahsan

October 2010

Economic Research Group
9/4 Lalmatia, Block – D, Dhaka – 1207, Bangladesh
url: <http://www.ergonline.org>

Sajjad Zohir is a Director of ERG; Biva A Mallik is an ERG Associate and Senior Lecturer, East-West University; and others were Research Associates at ERG. The paper was prepared in fulfillment of ERG's commitment to the International Food Policy Research Institute, Delhi office, and provides the backgrounds on Bangladesh for an ADB initiative on a multi-country study. For comments and suggestions, please contact info@ergonline.org.

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Section 1 **Introduction**

1.1 Background

Social safety nets, covering both government and private voluntary initiatives, and rooted in redistributive justice as well as in concerns of the asset-rich with harmony and security, developed over the years largely to address the poor and poverty that were observed during otherwise normal times and/or during times of natural disasters, such as, flood and cyclones. Market-related shocks, such as sudden increases in food prices, had rarely been concerns of these programs. The financial crisis in East Asia led to concerns, which did not however draw wider attention, particularly in Bangladesh. The world-wide price increases during 2007-08, first in fuel and other commodities, followed by unanticipated increase in food grain prices, thus provided an acid test for Social Safety Net Programs (SSNPs) under situations of market-related shocks. In case of Bangladesh, food prices increased by 72 % over a period of only 10 months – from June 2007 to April 2008. This was clearly a departure from the historical norm¹; and the situation got aggravated by India's setting of a floor export price for rice, which had virtually blocked Bangladesh's effort to mitigate risk by taking refuge in international market. The events have long term implications for policymaking and for political decisions with regards to national level food security.² While future agendas to attain national level food security appear to be firming up – in resource allocations as well as in the institutional space – the lessons are less concretely articulated with regards to household level food security and on what (kind of SSN) works better during periods of food crises and what does not. It is commonly acknowledged that the events of sudden price increases in 2007-08 are going to recur and it is therefore urgent that there be an assessment of the experience to identify ways to deal with future shocks.

1.2 Objectives and Scope

This paper is an output of an ERG initiative with ADB supports via a sub-consultancy with IFPRI. The study had the following objectives:

- Describe the effects of the food price surge of 2007-08 on the poor and vulnerable in rural and urban Bangladesh
- Assess the responses to the effects, and

¹ Month-to-month growth in wholesale prices of coarse rice, estimated from a log-linear specification was 0.131 for the five year period up to June 2007. The corresponding figure is estimated to be 3.61 for the ten month period of sharp price increase.

² In a meeting of the UN General Assembly during end September 2009, the Prime Minister of Bangladesh voiced concerns and emphasized on attaining self-sufficiency in food grain production – a reversal from past trend towards attaining self-reliance by seeking comparative advantages in a global economy. The perspective is commonly shared by most in Bangladesh, irrespective of ideological biases.

- Suggest ways of strengthening social protection/safety net system in Bangladesh for mitigating the risks of food crisis and improving food security of the poor.

In addressing the above, the exercise looks into past price movements, choice of coping strategies made by the poor, roles of various transfers in mitigating adverse effects of price increases, and all these are done within a simple conceptual framework laid out at the beginning. Drawing upon the experiences in Bangladesh, the paper proposes a set of recommendations to strengthen the SSNs that may be more effective in times of future crises originating from markets.

1.3 Methods and Outline of the Report

There is a large body of work that looked at operational aspects, targeting performance, and the impact of safety nets in Bangladesh³. A number of recent studies also examined the causes and consequences of the 2007-08 food price surges in Bangladesh⁴. Desk review of relevant studies and documents were undertaken to address some of the research questions mentioned above. While the study primarily relies upon secondary literature and data, where there are gaps, attempts were made to fill those through limited undertakings to collect qualitative information to gain further insights. Such attempts included: (i) qualitative case studies of vulnerable groups in selected urban and rural areas of Bangladesh to get insights into the effects of rising food prices on their livelihoods and the workings of public and private interventions to help them cope with the problem; and (ii) interview government policymakers, program implementers, and officials of lending/ donor agencies and NGOs to know what specific social protection measures have been taken to cushion the impact of food price rises on the poor. In addition, analysis of unit level data from other sources had been analyzed where this was possible.

One important departure in this study is in perceiving SSN/SP as services with differentiated products; for which demand exists (or arises) within a select group and there are agencies who engage in providing these services. Attempt is made to recast existing information in order to enhance understandings on both sides of the market for these services. Generally, the literature has dealt with the subject as if there is abundant resources and the policymakers (national as well as international), academia and development practitioners are unanimous in upholding such perception. It does therefore appear that these resources 'are to be allocated'; and all pretend to know what is best for the target population (or, for the national interest). Within the proposed construct, this as well as private provisioning are considered to reflect the state of the supply side. The empirical literature also deals with coping strategies, which is read here to reflect the demand for various differentiated products. Thus, conclusions and recommendations are drawn upon assessing the matches and mismatches between the two sides.

³ See, for example, Ahmed (2007), Shaikh (2005), Khan *et al* (2007), Majumdar and Begum (2008), and WB (2006).

⁴ Munshi *et al* (2009), Raihan, S. (2009) and WFP-UNICEF (2009).

Several issues on perspectives are therefore discussed in the section to follow, with the empirics of price movements relegated to an Annexure. The section reviews the literature defining social safety nets and social protection; and reasons as to why it may be considered a service demanded and supplied. It is believed that the latter departure will permit *ex ante* assessments of programs in terms of their desirability in a consistent manner; and not just confining to empirics defined in terms of targeting and net benefits transferred a target population. Section 2 also lays out the pathway by which a price shock in food market may get transmitted to poor households. Section 3 presents the findings, to an extent, reconstructed to identify the nature of services demanded and those currently delivered. Details on institutional level programs (commonly grouped under SSN and SP) adopted to counter the adverse effects during the crisis are however relegated to a separate annexure. The concluding section draws upon the observed discrepancies between two sides of the ‘service’ market to arrive at few recommendations aimed at strengthening the SSN system in Bangladesh.

Section 2 Selected Issues on Perspectives

2.1 Safety net and Social Protection as Services

The concept of ‘social safety net’ and ‘social protection’, *albeit* new, is fast gaining ground in development literature. In chronological order, safety net came first into the discourse during the 1980’s in response to the (presumably short-term) adverse effects of structural adjustment (Adato, Ahmed and Lund, 2004). The concept was later popularized in East Asia during the financial crisis (Paitoonpong *et al* 2008). Safety net is a concept that is largely associated with the idea of a short-term buffer. One must note that although the term ‘social safety net’ was adopted in the 1980s, programs of similar nature (*albeit* not termed as such) have long been in practice⁵. Some examples include rural works program, relief to areas adversely affected by natural calamity, etc.

With globalization giving rise to sporadic bouts of crises world wide, new experiences were acquired during the 1990’s, which subsequently led to the extension of the concept of short term safety net to longer term interventions, often coined as social protection. During the same period, external development lenders/partners began to emphasize upon working with a full range of issues of concern to public policy, which involved multidimensional interventions with increasing emphasis on human rights. Thus, pressure was often created on national governments to include pro-poor policies in their budget and public policy. There was clearly a shift in focus, or rather, widening of the focus - the importance of ‘safety nets’ during the 1980s giving way to ‘social protection’ during the 1990s⁶. Social protection had long been considered an issue of domestic concern in developed countries, where institutional arrangements emerged in order to protect citizens against risk and provide assistance to the destitute (Norton *et al* 2001). In the context of the developing world, social protection is a new term that expands from the concept of short-term safety net programs, and emphasizes a longer-term development approach, which includes social assistance and insurance (Page *et al*).

The differences in perceiving social protection quite naturally varies across developed and the developing worlds. In developed countries, social protection follows from the rights based approach, where it is understood that every citizen is entitled to some basic levels of minimum consumption and it is the responsibility of the state to provide those or ensure that mechanisms are in place to facilitate the provision of the basic goods and services. On the contrary, social protection is viewed in the developing countries more within broader development parameters. The provision of social protection expands from state and includes NGOs as well. One therefore needs to distinguish between ‘general

⁵ Raja Todar Mal, one of the *Navaratas* in Emperor Akbar’s council (16th century AD) had formalized state support to farmers at times of crop failure. The ancient irrigation-based civilizations across Asia and South American continents clearly recognized the need (for safety nets) for the very sustenance of production.

⁶ It followed practices in welfare states and under socialist governments in response to continuing economic crisis and rising share of elderly populations in developing countries (World Bank 2001).

social protection’ as in the western context and the ‘special social protection’ as in the developing country context.

The confusion with the terms pervades both the literature on the subject and practices around it. There is evidence in practice of using the two terms almost synonymously, even though substantial conceptual differences are acknowledged. Rest of the sub-section highlights some such inconsistencies, in order to make a case for an alternative way of perceiving those.

Box 2.1: Selected Definitions of Social Safety Nets

- “Non-contributory transfer programs targeted to the poor and the vulnerable.” (WB)
- “Programs designed to assist the most vulnerable individuals, households and communities meet a subsistence floor and improve living standards.” (ADB)
- “Cash or in-kind transfer programs that seek to reduce poverty by redistributing wealth and/or protect households against income shocks. Social safety nets seek to maintain a minimum level of well-being, a minimum level of nutrition or help households manage risks.” (FAO)
- “Formal safety nets redistribute resources to poor people to reduce chronic poverty or to protect them against risks to their livelihoods – risks posed by disease, loss of employment, drought, conflict, financial crises, or macroeconomic adjustments for example.” (IFPRI)
- “Formal social safety net programs redistribute resources to the

The definitions of SSN from in Box 2.1 above give us the general understanding that safety nets involve redistribution of resources to the poor. Such redistribution is done with two objectives: (a) It helps the target population maintain a minimum level of consumption; and (b) it creates a buffer to protect the vulnerable groups from sudden shocks. It is important to note that the nature and modality of transfers may vary. While some transfers are direct and targeted to individuals or individual households (such as, distribution of productive assets); others may be more general, say, targeting a community or a geographical location (such as, constructing cyclone shelters in a particular area).

The concept of social protection expands from that of safety nets. Some definitions of them are included in the Box 2.2 below. Comparing the definitions of SSN to that of SP, several observations may be made, and one may raise several questions as well. These are highlighted below.

- It appears that, in broad terms, both ‘safety nets’ and ‘social protection’ have similar objectives of helping the poor and reducing their vulnerability to various

shocks. It is therefore no wonder that many of the practitioners treat the two terms synonymously.

Box 2.2: Selected definitions of Social Protection

- “Policies and interventions that assist the poor and the vulnerable to reduce the risk of shocks, mitigate their impact and cope with the aftermath.” (Bhaskar)
- “The public actions taken in response to levels of vulnerability, risk and deprivation which are deemed socially unacceptable within a given polity or society.” They note that social protection deals with the needs of the poorest and also with the need of the currently non-poor for security in the face of shocks, and life-cycle events. In the above quote, ‘public’ includes both government and non-government institutions, with the possibility of both acting together.
- “The set of policies and programs designed to reduce poverty and vulnerability by promoting efficient labor markets, diminishing people’s exposure to risks, and enhancing their capacity to protect themselves against hazards and the interruption/loss of income”. (ADB)
- “SP as public interventions to (i) assist individuals, households, and

- There is however a difference in the choice of target population, implicit in the choice of programs under the two heads. While safety net is quite often ‘exclusively’ for the poor or for a segment amongst the poor, social protection may often be ‘all inclusive’, that is, include non-poor as well.
- Safety nets are often identified in the literature as short term buffers, while social protections are considered longer term interventions.
- Programs proposed under SSN and SP may be captured under three broadly defined dimensions: objectives, areas of interventions and instruments to realize area-specific objectives. Thus, one may possibly categorize the programs in those terms.
- Unfortunately, various definitions in the literature often mix up the above-mentioned three dimensions. If one is able to identify both SSN and SP in R^{+3} space one may pose the question: are the two sets defined by SSN and SP identical; or, is SSN a subset of SP? Similar questions may be probed with regards to the relations between SP of the general type and SP of the special type⁷. Alternatively phrased, is there a difference between the various responsibilities of the government towards its citizens and the social protection that development practitioners talk about?⁸

⁷ See distinction made in p. 5.

⁸ Holzmann and Jorgensen (2000) consider SN as a subset of SP when Social Protection is perceived to include labor market intervention, social insurance and social safety nets. However, it positions with a view to manage risk.

- There are some who suggest of a transformative relation between SSN and SP. One such argument mentions of scalar difference – that is, a single SSN when undertaken at a massive scale to bring about sustainable change is called SP. A second line of argument mentions of SP as an integration of several SSNs to have sustained impacts.

Irrespective of the size or the nature of the program, all views recognize that both SSN and SPs essentially involve introducing services – either creating a market where it is missing, or, acting as a new provider when the current providers are unable to ensure some *prior* social optimum, or, introducing policies that ensure reaching that social optimum. Supply side perspective is generally upheld; and some degree of monopoly power is presumed. One also finds interlinking of several service markets under a single program, whose rationale may be more concretely tabled if the natures of demands for such services are explicitly addressed. Thus, viewing SSN and SP is the very first departure from norm, which will be adhered to throughout this paper.

2.2 Characterizing Programs on the Supply Side

There are several considerations to be made in understanding the supply side. Programs packaged as SNP or SP have to address the following three issues.

- Objectives and Purpose: who is it targeted to and for what purpose. All programs normally include a target population (often defined in terms of households) and mention of changing certain economic (or more) aspects of the target population, such as, food security status⁹. One however needs to group these into meaningful categories.
- In which service segment will the intervention(s) be made? In order to realize an objective, intervention is required in one or several of such areas as, accessing markets (goods and service, capital or financial); of income generation; of basic services such as health and education or food security etc. Alternatively, one could identify areas in terms of markets; labor market, (non-financial) asset market, financial market, output (say, food) market.¹⁰
- How will the intervention be made? Instruments of intervention and/or modality of transfers, such as, untied transfers in cash or kind, designing projects to employ at wages otherwise not sustainable by the market, etc.

Objectives are generally program specific. Other than in transformative cases, one may group different program outcomes into three purposes/functions that the objectives serve. These are;

01. *Prevention*: Some outcomes reduce the probability of incidence of shocks. Example: construction of a dam will reduce the risk of flooding in a particular area; agriculture insurance will protect farmers from loss of income in times of crisis.

⁹ Concern for risk may be subsumed within the broader focus on distribution of a variable which addressed both average (mean) and the variance of a given outcome variable (say, income, food intake, etc.).

¹⁰ One may note that this clearly departs from an approach that separates labor market intervention from SSN since some of the programs under the latter may involve the labor market.

02. *Mitigation*: Improve the households' resource endowment such that the hardship of a shock when it does occur is reduced. Example: beneficiaries of FFW are likely to be less affected by food price hikes; construction of a cyclone shelter will enable households to protect themselves and their livestock during cyclone emergencies.

03. *Coping*: Help reduce the everyday hardships and impoverishments of those adversely affected by shocks as well as those who are more permanently poor or destitute.¹¹ Examples include, VGF and Relief.

It is acknowledged that households face hardships as a result of some adverse incidents. While some incidences may be exogenous, such as, natural calamities; others may evolve from lifecycle process itself (such as, ageing, or illnesses) or structural injustices. In either case, the objectives of a program may be grouped into one or more of the three categories - prevention, mitigation and coping.

Interventions vary in accordance to the nature of the program, its target population, its objective, availability of resources, etc. Looking at the pool of programs, we distinguish between transfer of resources to individuals or households and resource uses for purposes that indirectly lead to benefits to a target population. In the former case, one needs to account for two additional characteristics – presence of contributions from beneficiaries; and conditionality tagged to transfers.¹² While it is relatively easy to identify programs in terms of contributions made by beneficiaries, conditionality is less explicit and not so unique. Some of the non-contributory transfers impose conditionality on how the resources should be used by the recipient households/individuals, while post-cyclone relief may not impose any condition. In case of contributory transfers - in kind, cash or labor - contribution itself could be considered as conditionality, raising further difficulties in categorization. Given the complexity, we propose to distinguish between four types/modalities of transfers. These are;

I1. *Non-Conditional & Non-Contributory*: Pure transfers either in cash or in kind. Examples include non-conditional cash or asset transfers.

I2. *Contributory, otherwise Non-Conditional*: Household receives benefits in return for some kind of contribution. Contribution can be monetary (for example, 'subsidized' insurance, OMS) or non-monetary (such as, providing labor under FFW). In the former case, goods and services are being provided at less than perceived/assessed market rates; while in the latter, goods & services are bought at prices that cannot otherwise be supported by prevailing market conditions.

I3. *Conditional – contributory or non-contributory*: There are some transfers, which do not necessarily require contribution, but are attached to obligations. For example, school feeding program is non-contributory, but requires the children to go to schools in order to avail the feed. There may also be asset transfers with subsidies (thus, contributory) which are tagged to conditions on how these assets may or may not be used.

¹¹ Some threads in the literature tend to consider 'coping' as a strategy that deals with risk, which is not always the case. Coping with perennial hardships may have no risk associated with it.

¹² One may further distinguish between transfers in kind and those in cash. The choice of the former has often been considered to have a built-in condition that positively influences greater consumption of the resources transferred in kind.

14. *Removing Exclusion*: Rather than directly transferring resources to the beneficiaries, some interventions are such that these (i) enable providers to supply new products/services; and/or (ii) enable previously excluded groups to participate in existing markets as consumers as well as provider of labor services (for example, construction of roads to connect remote areas, or, promotion of pro-poor investments).¹³

One may note that the above may be linked with nature of inter-linked contracts – some are defined only in the context of a single transaction, while others involve inter-linked contracts encompassing several service and/or goods markets.

2.3 Characterizing Demand Sides

Traditionally, SSN programs are claimed to be designed so that households are able to better cope with a crisis. Yet, the discourse rarely searches for linking household responses with program placements – though optimal choice by a monopolist ought to account for demand characteristics. Thus, empirical observations on households' coping (or, mitigation) strategies often remain isolated (and under-used) exercises. This section attempts to understand the household responses upon meaningful grouping – short-term impacts (not considered as response), ex-ante responses (meant for mitigation) and attempts to enhance income or engage in expenditure-saving activities which are grouped into pro-active household responses to return to pre-shock status quo (or, come out of adverse situation), termed here as coping strategy.

Basic economics inform us of how optimal choices by households, consumers as well as consumer-cum-producers, are made under a set of constraints. A reduced form of this decision may be expressed as follows:

$$D_j^* = f(p_1, \dots, p_x, M(\{S_k\}, \{V_n\}), p_1, \dots, p_y, \{T_c\}, Z); \quad (2.1)$$

$$\{S_k\} = \{S_e\} \cup \{S_s\}; \text{ where,}$$

D_j^* is the optimal decision on j-th item, which includes amount of an item to consume, amount to produce (or, amount of land to allocate for producing a crop, etc.);

$p_1, \dots, p_x, p_1, \dots, p_y$ are prices of x number of consumables and y number of inputs;

M is income, which depends on an initial choice of k number of actions, $\{S_k\}$, reflecting optimal choices between labor and leisure. M also depends on expenditure incurred on all mitigation strategies that households adopt in anticipation of shocks/crisis, denoted by the vector $\{V_n\}$. $\{S_k\}$ may be further classified into two¹⁴: income-earning actions $\{S_e\}$, and expenditure-saving actions $\{S_s\}$.

¹³ One may note that subsidies (say, in the form offering goods & services at prices lower than market prices) also remove inclusion, and those have been included in I.2 and I.3. Thus, I4 is more inclusive and benefits target population only indirectly. In contrast, the first three types are individual/household targeted.

¹⁴ The specification in (2.1) has close correspondence with the various terms in vogue amongst development practitioners. Differentiability of the function is not however assured, since, (i) households may choose to ensure a minimum level of income below which leisure carries insignificant value (i.e., opportunity cost of labor is almost zero) – case of a min function; and (ii) there are certain actions (such as, education) which, once committed, require repeated expenditures. Even if some such expenditure may be

$\{T_c\}$ includes all outside interventions involving transfers to households and meso-level actions having implications for returns to households' economic activities. In the present context, SSN and SP are considered to be primary elements under such interventions.

Finally, Z includes other (usual) variables, including that of taste.

We denote $\{Y_e\}$ and $\{Y_s\}$ respectively as incomes accrued to households and various expenditures saved which would otherwise have to be incurred if household labor was not engaged. It is important to note that $\Delta\{Y_e\}$ and $\Delta\{Y_s\}$ as a result of $\Delta\{S_e\}$ and $\Delta\{S_s\}$, undertaken following a crisis, will depend on mitigation actions, $\{V_m\}$, taken prior to an event¹⁵.

Within the above framework, households' *ex post* responses, once a crisis such as food price increase occurs, may be grouped into two: (i) adjustments in consumption expenditures without adjusting previous income-leisure choices; and (ii) coping strategies that involve change in labor-leisure choices leading to new levels of income and expenditure saving. The former falls within the domain of short-term impact, which is narrowly defined to include only the income and substitution effect of increase in prices of food items. In the context of an increase in food price, the latter is equivalent to decrease in real income and an increase in relative prices of food items (*vis-à-vis* non-food items). When product and services are sufficiently differentiated (*i.e.*, identified at finer levels), the impacts may be considered on both quantity and quality spaces.

Coping strategies, the second in the list, include only the $\{S_k\}$ component, which reflects households' readjustments in the spheres of labor and leisure. A fall in real income, in the case of a 'food crisis', is expected to increase the relative returns to labor *vis-à-vis* leisure and households will adjust the choice of labor as well. One therefore expects an increase in both income-enhancing (after the initial adverse effect is taken into account) and expenditure-savings activities. There is a third set of actions that households adopt in anticipation of shocks, a part of which the literature terms as 'preventive' and the other as 'mitigation' strategy. In most instances, it is beyond the ability of a single household to prevent a shock it faces, and therefore, only mitigation strategy is relevant, which is captured by the vector $\{V_m\}$. The latter may include acquisition of assets - financial as well as non-financial - for bad times. One may extend its scope to include even investment on social networking which helps cushioning against financial and social shocks, investing on appropriate shelter to avoid deaths of humans and cattle during times of natural disasters, etc¹⁶. Finally, equation (2.1) also captures a set of outside interventions, direct transfers to households or indirectly via various market and non-market interventions, which influence households' decisions.

non-optimal in static sense, withdrawing from those half-way is worse within a longer time decision frame. Equation (2.1) is NOT demand for SSN/SP services; but demand for goods & services in a static context for the purpose of illustration.

¹⁵ Δ stands for change in.

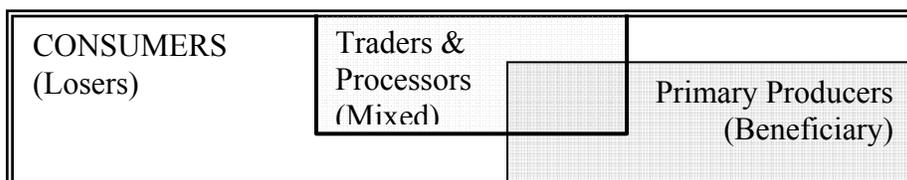
¹⁶ One may choose to include mitigation as well as preventive measures while considering desired actions under SSNP or SP.

The demand function specified (2.1) and the underlying preferences, including that between labor and leisure, if adequately understood, would give insights into the nature of demand for social services that we term SNP or SP.

2.4 Impact Pathways

In one or a mix of three broad capacities, people may be affected by food prices: as consumers of food; primary producers of food; and being involved in trading, storing and processing of primary or processed food. All people are consumers (see Figure 2.1); and a significant proportion of Bangladesh’s population is producer as well. The last category may include even a larger population compared to producers – there are many involved in retailing and wholesaling of the food items at various stages of their processing, whether they are linked with domestic production or with import of food. As consumers, there is a decrease in real income; and there is an increase in nominal income for the producers when food prices increase.¹⁷

Figure 2.1: Overlapping groups facing different odds when food prices increase

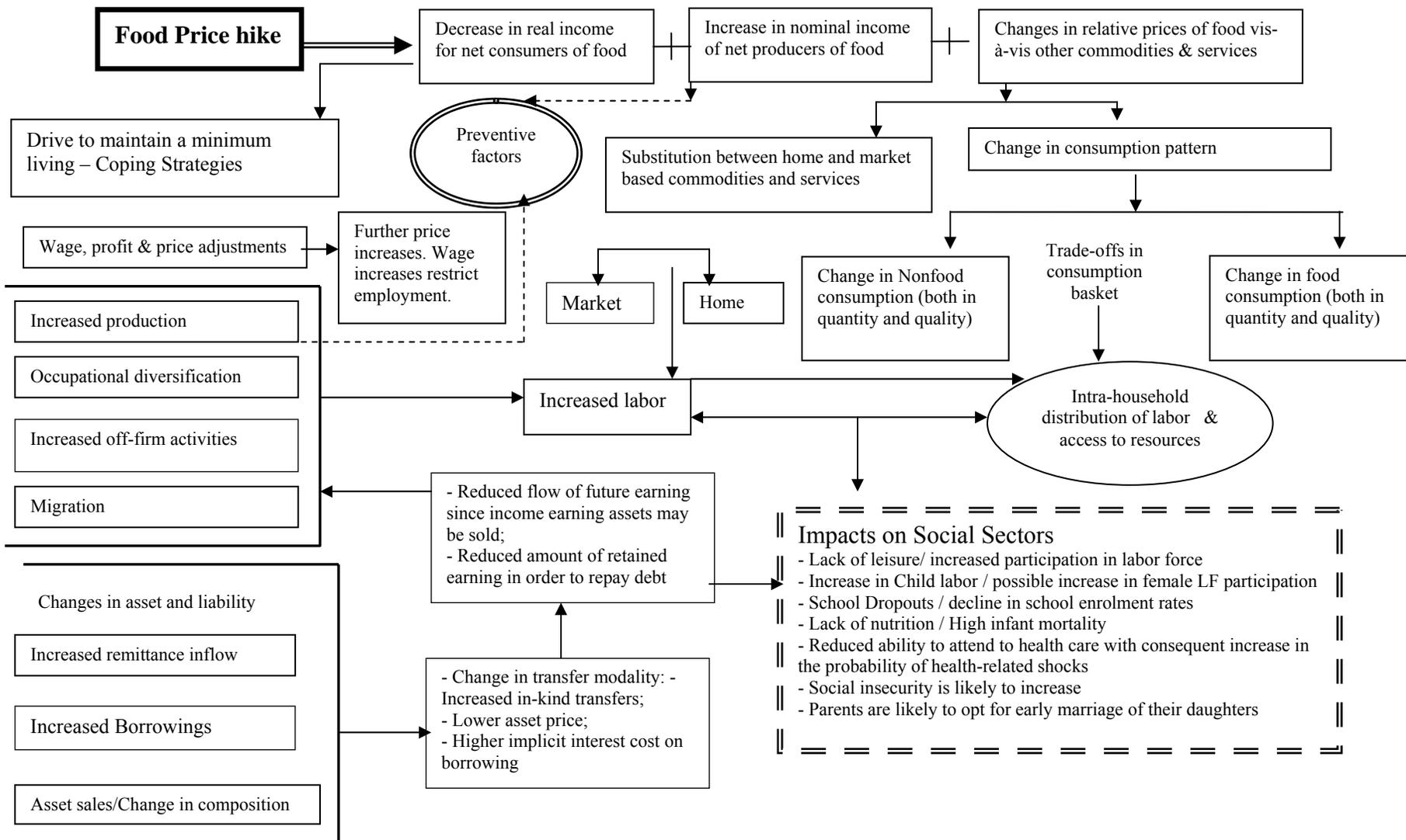


Discussion in the preceding sub-section (2.3) elaborated on the various routes through which households would be affected – first through the short term adjustments in consumption/expenditure behavior due to changing relative prices and a decline in real income; and subsequently in the process of readjusting labor-leisure to cope with the adverse situation. The latter would lead to a second round of adjustments in the expenditure behavior; and all these would have bearing on social spheres, including that of family and intra-household decisions. Impact pathway captured in Figure 2.2 accounts for the consumers and the producers. For tractability, the ‘trader/processor’ group is ignored even though the latter’s actions, particularly with regards to price adjustments and margins retained, have bearings on the severity of price shock and its sustenance. The pathway allows for interactive sequence of market outcomes and household responses, thus making it difficult to disentangle immediate effects of an event from the final outcome as a result of all prior ‘preventive’ actions and ex-post ‘coping’ actions. The empirical literature quite often put all these in a single plane, thus confusing any meaningful discussion on desired policies.¹⁸

¹⁷ Of the rural respondents in a WFP administered survey found the percentage of net sellers to have increased from 34% in 2007 to 40% in 2008-09. Share of net buyers also had increased from 25% to 33% over the same period, at the cost of reduction in autarky. (see Figure 4.5 in BHFSNA)

¹⁸ It is also important to recognize that observed changes in expenditure or consumption are results of short term adjustments to price changes as well as to income changes and expenditure savings as a result of coping strategies adopted. To the author’s knowledge, empirical literature does not attempt to separate the effects by these sources, even though, in different contexts, few try to assess the implications of mitigation strategies.

Figure 2.2: Understanding the Impact Pathway



Source: Adapted from Uddin, M.H. et al. “Impact of Price Increase on Poor Household and Children Wellbeing”, ERG, April, 2009

Section 3

Study Findings: Household Responses

The scale of price increases is documented in Annexure xx. This section summarizes observations from secondary studies; and some of these sources are described in Annexure 1. However, the analytical categories proposed in Section 2 were largely drawn from consultations undertaken for the present study; and some of the general findings from these consultations are presented at first in Section 3.1. The focus of the latter is primarily on identifying the groups who were affected by prices increases.

3.1 Who were affected?

Who were affected by food price surges remain somewhat conjectural – partly because it had affected all, and partly due to other contemporaneous events influencing outcomes which are empirically difficult to control. Size of effect however depends on the relative share of food expenditure in total household expenditure. Thus, the proposition of the poorest being most adversely affected is widely accepted since the share of food expenditure is the highest for the very poor (almost 70% in 2000) and it (share of food expenditure) decreases monotonically with increase in income. Such a conjecture however disregards the differential pace of labor market adjustments across poor and less poor.

There have been at least two nation-wide surveys using the Integrated Multi-Purpose Sampling Frame of BBS, which had looked into food security issues at household levels – (i) WFP-UNICEF’s Bangladesh Household Food Security and Nutrition (BHFSN) Assessment undertaken in 2008-09; and (ii) Welfare Monitoring Survey (WMS) of BBS in 2009.¹⁹ Unfortunately, published data do not relate effects (or their severity) with household characteristics; and are available only at division levels. It is generally observed that Barisal division was more severely affected – because there are more households who are net buyers of food and partly due to the Sidr effects that preceded the surveys. The studies also mention that female-headed households were more severely affected compared to male-headed households.

Consultations with rural people in 70+ villages and small towns spread throughout the country reveal that day laborers, people with fixed and low income, large families with few earning members (i.e., high dependency ratio), female-headed families (for example: widow/divorced, separated/abandoned), small and marginalized farmers who are net buyers of staple, small job holders in urban areas and self-employed people were severely affected due to soaring food price. In separate consultations with people living in urban slums (of Dhaka, Chittagong and Sylhet), it was learned that normal economic life was

¹⁹ Data collection for BHFSN was undertaken from November 2008 to January 2009. It included 10,378 households, 180 markets and 900 traders. The food security component and market analysis were led by WFP and the nutritional component by UNICEF with IPHN. The WMS (2009) was undertaken in March-April 2009, apparently as an early experiment to generate ‘high frequency’ data to obtain annual estimates on poverty and variables of importance.

also hampered due to anti-corruption movement.²⁰ Noteworthy amongst the most affected in urban areas are small shop owners/vendors on footpaths, beggars, garments workers, masons, etc. Rickshaw pullers and other drivers (van, CNG, cab, etc.) did not suffer much as they charged higher fare to people. One should note that most studies on capturing effects of price increases focused on the poor though one cannot deny that the low earning fixed income group in urban areas with little or no access to land-based resources were severely hit by price surges. Their stories have remained largely untold in the literature.

3.2 Prelude to the empirics - major types of responses

Many empirical studies often mix-up between various kinds of responses; and lump those under a common heading of ‘coping strategies’.²¹ Upon realizing this from initial review, a scoping was done in several urban slums to cross-check the classifications proposed in the preceding section. It allowed operational meanings to the categories developed in equation (2.1), and re-group those into the followings²²:

- Coping with adverse situation by *changing inter-temporal portfolio mix*: such as, increasing future liability by borrowing, cashing on past savings in cash or assets. At an operational level, we consider the following sub-groups:
 - Spend out of savings to meet current consumption: Savings means past earnings retained for future consumption – while asset is a form of saving, it is discussed separately. Ideally, the act of saving may be treated as mitigation, even though the act of spending out of the saving to face a crisis, *ex-post*, is considered under coping.
 - Borrow to meet current consumption: People mostly borrow either in cash or in kind; and may do so from formal and/or informal sources. Borrowing may be collateral-free, tagged to collaterals, or may be tagged to transfer of user-right over tangible assets (such as, in cases of land mortgaging). There may also be instances of advanced sale of labor interlinked with borrowing.
 - Use proceeds from sale of non-earning assets: People initially spend cash savings and retained earnings before borrowing for adjustment. Mortgaging out is often an intermediate step before selling of property. The first broad kind of assets includes those which do not bring income, such as, ornaments, furniture, etc.

²⁰ In fact, some of those interviewed believed that price increases were associated with the then government’s policy. While no hard evidence exists, there are reasons to believe that the government’s attempt to control market and movement of goods, and to evict ‘illegal occupants’ had adversely affected the informal economy had aggravated the price increases.

²¹ For example, household responses reported by the World Bank and reproduced in Table 3.9 mention of several items under household responses: changes in quantities, switch to lower quality and the trade-offs in food and non-food expenditures are rather ‘passive’ responses and may be considered short-term impacts. The other items, except for the transfers, are considered under coping strategies.

²² As noted in equation (2.1), one may link the empirics with the analytics available in economics text book. The choices are essentially made to allocate limited labor time into three broad uses – leisure, work to earn and work to reduce/save expenditure. The issue of asset sale and/or borrowing to meet current consumption at the cost of future liability may be derived from inter-temporal choice models.

- Use proceeds from sale of income-earning assets: Assets includes farmland, livestock, rickshaw-vans, etc. Such coping strategy has long term implications for livelihood of the affected population.
- Expanding the scope of expenditure-saving activities: Many of the home-produced (non-marketed) goods have close substitutes in those available from the market at a price. For example, childcare services, prepared/cooked food, fuel wood in rural areas, etc. During times of hardships, people often switch from these market goods to producing these with family labor (thereby saving expenditure); and the empirical literature identify such responses as expenditure-saving activities.²³ Usually the time previously spent on recreation or leisure is now spent on home-based work. In this way there is a substitution between household and market based goods. For example, a household that consumed restaurant food with some extra price may switch to home made food by substituting family leisure with cooking and thereby saving money. Such choices are however made under compulsion; and cover such activities as, collect more food from nature (gather wild food), glean food from market or restaurant, etc.
- Social relocation: There are other kinds of expenditure-saving decisions as well. FGDs in urban areas found people sending family members to villages or to stay with better-off relatives and friends, postpone children's marriage to save the expenses, etc. While these latter activities are expenditure-saving in nature, we include these in a separate head called 'social relocation' in order to highlight the social implications of such moves.
- Engaging in income-enhancing activities to assure a minimum level of living, thus, involving adjustments in labor-leisure choice, often cutting across intra-household allocation of responsibilities. Such choices go through major revisions amongst households with limited fixed income (not tagged to price inflation). Several ways to increase income are:
 - Engage in additional jobs/employment, which manifests empirically as increased occupational diversification (often, to reduce risk) and/or multiple occupation (engagements in less productive activities forcing one to engage in multiple occupations).
 - Work more hours in the same job, particularly in self-employed activities.
 - Engage more members in the family to engage in remunerative work. It may involve engaging children, women and even elderly in work force.
 - Migrate out to places with greater employment opportunity and/or higher wages.
 - Demand higher nominal wages or retain greater margins in self-employed activities (such as, in petty trades, rickshaw-pulling, etc.).
 - Adopt extra-legal practices, socially unacceptable/unethical or illegal means to cope up with the situation. The diverse activities within this group may include working as sex workers, begging, engage in smuggling, and in drug trafficking, etc.

²³ The act is one of the outcomes of optimal choice of labor & leisure when relative prices of market goods increase vis-à-vis home produced goods and real income increases thereby raising the price of leisure and reducing the real prices of labor. The other outcome is identified in this paper as income-enhancing activities.

- Adopting mitigation strategies: These are undertakings prior to an event when considered at household levels, whose counterparts at coping stage have been noted. However, such strategies and interventions on the part of institutions at *meso* levels are known to reduce the extent of adverse effects. There are two kinds of programs which are inherently risk-reducing strategies (*ex ante*), but are adopted to enhance income under distress (*ex post*). The first aims at shifting occupation and the second attempts to diversify agriculture (particularly, crop) production. In order to cover survey findings on the latter two responses, these are included under risk-reduction strategy.

Focused group discussion in urban slums revealed that people had considered several other strategies of long term nature after having faced the food price shock. These included, adopting family planning (as family with more people suffered most), having appropriate insurance if available in the market, shift asset portfolio towards income-earning ones to ensure higher flow of income, and provide training to potential (secondary) earners in the family who may support in times of crisis.

3.3 Selected Findings from Different Surveys

Strict isolation of short-term/immediate effects (*ceteris paribus*) from changes in households' livelihood is empirically a difficult task. Observed outcomes on changes (in say, consumption or expenditure) are results of both initial shocks and changes in some of the other parameters – elements in $\{S_k\}$. One would however expect less adverse effect of a shock at higher values of $\{V_n\}$, that is, when households resort to mitigation strategies. Thus, reduction in consumption due to a given increase in price will be higher for households with lower values of $\{V_n\}$. This sub-section summarizes available findings on who were affected by prices increases and in what spheres were they initially affected.

In a number of ways, empirical findings are collected and presented – thus, comparisons and drawing all encompassing inferences may be difficult. While cross-section studies could reveal elasticity parameters, these are less reliable because of lack of price variation in the data. Where there is such variation, the latter may reflect product differences. Thus, researchers rely on recalls on a currently selected sample and compare current observations with pre-shock recalls. Most commonly used statistics are, percentages of households reporting consumption of an item, or, reporting increase or decrease in quantity consumed and/or in quality. National level comparisons could only be made with HFSNA (2009) data of WFP when compared with HIES data of earlier years. ERG slum survey 2008 (Ahsan 2008) is able to contrast the various groups of urban poor living in slums and poor clusters. The ERG survey 2009 of poor households in six areas in the country (Uddin 2009) provides insights into differences across major agro-ecological zones where there is larger concentration of Bangladesh's poor.²⁴

²⁴ The BBS Report on Welfare Monitoring Survey 2009 was made public only recently at the time of final editing of this report. While there are information on various shocks that households face and the coping strategies they adopt, no clear observations may be made on effects of price increases.

While prices of food as well as of non-food items increased, the former had increased more. Because of the change in relative prices as well as due to decrease in real income, share of total household expenditure on food increased significantly. While households in Bangladesh, on average, had been spending just over one-half of their total expenditures on food during the pre-shock period (51% in 2000 and 52% in 2005), HFSNA 2009 suggests it to have increased to 62% (Table 3.3). Comparing with HIES 2005 data, the WFP report concludes that during 2005-08 period, nominal income increased by almost 12% while real income declined by almost 12%. Data/findings compiled from various sources in Tables 3.1 to 3.7 may be summarized as follows:

- A large percentage of the households switched from fine and medium variety rice to coarse variety rice. A larger percentage of the (marginally) non-poor urban households in Dhaka had to make the switch compared to the very poor since most of the latter were consuming coarse rice. Several other items were withdrawn from the diet by large percentages of urban households – beef, chicken, milk & milk products, and lentil²⁵. Similar finding is observed in the other ERG survey covering six regions, where reduction in consumption of big fish is also observed (Table 3.2).
- Interestingly, though non-comparable, large sample of WFP survey shows declines in the share of expenditures on cereals, meat and milk & milk products. A rough calculation with the figures from the survey show that nominal expenditure on rice & cereals increased marginally since potato was an important substitute during price increases. Absolute expenditure on vegetables and pulses doubled, almost tripled for edible oil, and the expenses on sugar quadrupled. In spite of the price increase, decline in consumption of meat and on milk & milk products was large to reduce the absolute expenses on these items.
- Compromising with lower quality food was reported for most items – but quite significantly in cases of rice, lentil, potato, sugar, milk & milk products and big fish. The extent of such reporting was similar across the poor and the marginally non-poor in urban areas.
- Adverse effects of increase in food prices were almost universal for the poor irrespective of their locations. On some aspects, however, urban households of Chittagong SMA are found to have been more affected than their counterparts in Dhaka SMA. One possible explanation is in the limited opportunities the former may have in increasing their income at a fast pace. In case of rice consumption, the decline is found to be highest in places such as Kurigram, known for its past history of famines and seasonal scarcity.²⁶
- Within poor households, extent of adverse effects was similar across gender and across adults and children, except in two items. Contrary to common perception, consumption by adult males was found to have declined more than others in cases of rice and milk consumption. One may however note that average consumption of many of the food items was higher for males compared to females.

²⁵ Many urban households also refrained from eating outside.

²⁶ Survey period is also relevant – information captured during October-November is more likely to find Kurigram as the worst-hit compared to other parts of the country.

3.4 Coping Strategies: variations across regions, income and occupations

Empirical findings from at least five different surveys²⁷, two of which are from other ERG studies, had been consulted in preparing the summary Table 3.12. The focus is on broad heads, which include elements already identified above. Of all the responses relevant for a broad type of coping strategy, only the minimum and maximum percentages (of households) are reported in the summary table. The surveys are not always comparable; yet, these provide insights into the relative importance of various coping strategies adopted by poor households in Bangladesh. More importantly, these are grouped in terms of various dimensions, such as, urban-rural, divisions, etc. – the kind of categorization considered useful amongst development practitioners and policymakers. Some of the important highlights of the findings are summarized below.

Differences across regions (vulnerable areas): Four areas in Bangladesh are identified as most vulnerable in terms of food security. These are, Monga (northwest/Kurigram), Haor (north-central and parts of north-east), coastal (south) and the Chittagong Hill Tracts (southeast). Information on these four vulnerable areas is detailed further in Table 3.10. Two additional vulnerable groups included in this categorization are slums in two major cities and other urban areas. Relatively, past savings as savior during bad times is relied upon by a quarter of the poor households in the north (Monga and Haor areas), while people in the coastal south and the CHT with ethnic minority appear to have less of such savings. Credit is availed by two-third or more of households in rural plain land, but only by less than half in CHT and urban slums. The latter findings conform with the spread of MFI activities across various rural areas and in urban slums under normal conditions. Opportunities for shifting occupation (shown under risk-reduction strategy) are higher in urban areas, while the opportunity for crop diversification is the least in parts of northwest vulnerable to river erosion.

While enhancing income-earning activities show up prominently, it is primarily manifested in working long hours. Very high figure on this count in the Monga-affected Kurigram area may partly reflect the response to current programs also, not necessarily supported by the independent local economy. Extent of temporary migration of family members is very high in the northwest, and is the least in the CHT. The cultural isolation of the latter region is a serious concern which demands attention. One may also note (in Table 3.11) that putting children to work is observed the least in the CHT – because of cultural inhibition or/and lack of opportunities where children may be gainfully employed.

Differences across regions (administrative divisions): The findings summarized here normally represent nation-wide surveys and therefore are more representative compared to other micro-level findings. Figures suggest lot more similarity across regions, with dis-saving and borrowing identified as the chosen strategy to cope by a greater number of households (one-third or more). Barisal is found to top the list. Interestingly, a larger percentage of households in Khulna are found to resort to income-enhancing activities; a possible case of backward-bending labor supply curve with regards to livelihood

²⁷ One of the exercises is a BRAC survey and a second one is the nation-wide survey of WFP.

condition! One additional point needs to be mentioned with regards to rural-urban differences. While consuming from seed stock and selling income-earning assets are quite significant in rural areas, households in urban slums cope by using their cash savings.

*Differences across income and occupations:*²⁸ It is no wonder that greater number of households from the poorest quintile group will report of coping compared to the richest quintile group. This is generally true except in case of spending from past savings. The poorest do not have such savings and therefore such option is not available. The striking difference between the two groups is observed in case of expenditure-saving activities. More than a third of the poorest quintile reported of resorting to such activities. Similar (relatively high) response is observed in cases of unskilled labor.

In conclusion, the summary findings do not lend support to any significant differences in responses between male and female headed households; and across most occupational groups.

3.5 Evidence from case studies

3.5.1 Story of Renu, a slum dweller in Dhaka city

There were about 80 households in two slums on government owned land in Banani, Dhaka city. And ten of them were interviewed in October 2009. A total of ten interviews were taken and the story of Renu, presented in Box 3.1, captures the average story of the struggle the families went through during the period of high food prices.

Box: 3.1 Renu: an urban slum dweller

Renu Begum, aged 30 and hailing from Sunamganj is living for the past 10 years in Banani slum, Dhaka. She lives here with her husband and 4 children. Her husband cannot work regularly due to chronic illness; and therefore the family of 6 depends on Renu. She works as housemaid in 3 houses in the locality, and is the main earner in the family. She vividly recalls the price surge of 2007 as her family had to suffer a lot. Their adversity knew no bounds. She took an extra work in another house. One of the house owners helped her that time with rice or cooked food and sometimes even with cash. Initially, they had to compromise with the quality of food by switching to less preferred food. While that was not enough, Renu had to reduce food intake for every member in each meal time. She could not afford toiletries (like soap, etc.) for a long time. Since the children were still young, they could not engage in any work to assist the family during the time of distress. Instead, after a short period of initial struggle, her husband went to village with 2 elder sons to reduce the financial stress. In normal times, Renu and her husband tried to help their parents and in-laws in Sunamganj with some cash. During the period of high food prices, they had to stop doing so. In spite of resorting to all the aforementioned measures, the family could not meet their minimal expense, and had to borrow on interest from informal sources.

[Prepared by: Sara Zabeen]

²⁸ Findings on different groups of income and occupations are drawn from the BRAC survey report.

3.5.2 Short, medium & long-term coping strategies

A separate ERG survey was underway in 2009 that covered households in 74 villages spread throughout the country and several urban slums in Dhaka and Chittagong. The current study took advantage of it to get some additional information on household responses to price surge in 2007. The responses were grouped into three broad categories; and these are summarized below.

- Short term strategies: Increasing income by engaging in extra laboring activities as well as by working more hours. In addition, many sold cows, goats, hens and ducks. Instances of spending from past savings, curtailing expenses were also reported.
- Mid-term strategies: Involved children and wife in work. Mortgaged house/lands. Stopped taking NGO loans. Sent one or two children to stay with better-off relatives. Temporary migration from rural areas to urban areas. Grew vegetables and other trees in homestead lands.
- Long term strategies: Migration for better opportunities with higher income. Adapted family planning as families with higher members had to suffer most. Few opened insurance for their children or for themselves. Provided training to children so that they can face the shock in future.

Statistical Annex to Section 3

Table 3.1: Percentages of households reporting to have consumed food item, Dhaka
(Percentages of all households in Dhaka Slums)

Food Items	Jan to Mar 2008			Jan to Mar 2007		
	Cluster1*	cluster2*	All	cluster 1	cluster 2	All
fine rice	2.86	9.72	5.19	6.62	12.50	8.65
Medium rice	23.57	19.44	22.17	29.41	30.56	29.81
Coarse rice	73.57	70.83	72.64	63.97	56.94	61.54
Lentil	91.43	94.44	92.45	93.38	98.61	95.19
Fish	97.14	97.22	97.17	97.06	98.61	97.60
Egg	85.00	90.28	86.79	86.03	91.67	87.98
Beef	30.71	48.61	36.79	54.41	76.39	62.02
Chicken	71.43	72.22	71.70	80.88	83.33	81.73
Potato	98.57	100.00	99.06	97.79	100.00	98.56
Vegetables	98.57	100.00	99.06	99.26	98.61	99.04
Soybean oil	98.57	98.61	98.58	99.26	98.61	99.04
Sugar	64.29	63.89	64.15	66.18	66.67	66.35
Spices	97.14	97.22	97.17	97.06	97.22	97.12
Milk & milk products	53.57	56.94	54.72	61.76	66.67	63.46
Outdoor meal	54.29	66.67	58.49	53.68	63.89	57.21
Tea-betel leaf-cigarette	74.29	76.39	75.00	73.53	77.78	75.00
# Households	140	72	212	136	72	208

Note: The households are spread over seven randomly selected slums in Dhaka city. cluster1 includes households having an average monthly income of 4600 taka(aprox) and cluster2 includes that of 9900 taka(aprox).

Source: Ahsan *et al* (2008).

Table 3.2: Percentage of households reporting change in the consumption basket
(Percentages of all urban and rural poor households)

Item Name	Consumed in		Change in quantity*		Change in quality*	
	2006	2008	Less	More	Worse	Better
Fine rice	20	12	61	11	43	12
Medium rice	46	35	56	19	35	5
Coarse rice	76	82	27	48	34	10
Atta/Wheat flour	29	23	76	10	19	16
Lentil	81	68	74	9	37	11
Khesari	21	21	54	29	12	9
Big fish	79	63	90	2	39	11
Small fish	98	98	45	36	27	12
Dried fish	75	74	59	16	32	13
Liquid milk	66	43	84	5	10	11
Powder milk	7	2	53	41	29	18
Mango	99	97	84	3	35	12
Jackfruit	99	98	81	4	26	13
Banana	98	96	76	5	34	10
Egg	94	85	86	3	4	11
Chicken	89	73	89	3	11	14
Meat/Beef	72	44	93	2	15	12
Mutton	11	5	84	6	56	13
Vegetables	98	98	42	26	27	11

Note: A total of 700 households were surveyed in October-November 2008.

Those reporting unchanged status are not presented in this table.

Source: Estimated from ERG survey (2008) data. See, Uddin (2009).

Table 3.3: Share of expenditure on major food items

Food items	2008-09	2005	2000
Rice & cereals	31.3	39	38
Vegetables	12.5	8.3	9.2
Pulses	3.8	2.6	2.9
Oil	8.4	4.2	3.7
Sugar	2.7	1.5	1.3
Meat	5.8	8.5	8
Milk	1.8	3.7	4
Fish	13.2	12.2	12.5
Condiments	5.2	7.5	7.1
Fruits	1.6	3.2	3
Mix	7	8.3	8.3
Potatoes	6.7		
Beverage		0.7	2
Food as % of total expenditure	62	52	51

Source: BHFSNA 2009.

Table 3.4: Percentage of Households reporting of change in quality of food items

Food Items	Cluster 1			Cluster 2		
	Increased	Decreased	Unchanged	Increased	Decreased	Unchanged
Rice	0.00	3.57	84.29	0.00	4.17	90.28
Lentil	0.71	65.00	27.14	1.39	65.28	30.56
Fish	0.00	0.00	82.14	0.00	2.78	87.50
Egg	0.00	0.71	26.43	2.78	0.00	45.83
Beef	0.00	0.00	67.86	0.00	0.00	70.83
Chicken	0.71	0.00	93.57	0.00	0.00	100.0
Potato	0.00	41.43	54.29	0.00	38.89	59.72
Vegetables	0.00	0.71	94.29	0.00	1.39	97.22
Soybean oil	0.00	0.00	62.14	0.00	0.00	63.89
Sugar	0.00	29.29	64.29	0.00	30.56	66.67
Spices	0.00	3.57	45.00	0.00	2.78	55.56
Milk & milk products	0.00	10.00	41.43	0.00	11.11	52.78
Outdoor meal	0.00	2.86	67.86	0.00	5.56	70.83
Tea-betel leaf-cigarette	0.00	1.43	3.57	0.00	0.00	6.94
Others	0.00	1.43	3.57	0.00	0.00	6.94

Source: Ahsan *et al* (2008).**Table 3.5: Percentages of households reporting on changes in expenditure on non-food items**

Expenditure items	Cluster 1			Cluster 2		
	Increased	Decreased	Unchanged	Increased	Decreased	Unchanged
House rent	73.05	5.99	20.96	78.87	1.41	19.72
Kerosene	89.72	4.67	5.61	87.23	2.13	10.64
Natural gas	91.53	2.54	5.93	79.66	0.00	20.34
Electricity	91.73	1.50	6.77	87.50	0.00	12.50
Transport	57.61	25.54	16.85	66.67	20.51	12.82
Clothing &FW	50.56	36.52	12.92	50.00	40.00	10.00
Health	66.67	20.34	12.99	72.00	9.33	18.67
Education	60.58	18.27	21.15	64.52	22.58	12.90
Tax-tolls	90.00	0.00	10.00	80.00	0.00	20.00
Entertainment	32.04	56.91	11.05	47.44	42.31	10.26
Others	15.79	77.19	7.02	44.44	48.15	7.41
Remittance	71.88	21.88	6.25	71.43	25.00	3.57

Table 3.6: Changes in consumption of essential food items by members

Region	# of meals/ week		# rice (gm/day)		# of eggs/ week		# fish (pieces/meal)*		# meat (pieces/meal)*		# milk (glasses/month)	
	2006	2008	2006	2008	2006	2008	2006	2008	2006	2008	2006	2008
All	20.2	19.5	475	418	1.8	0.6	1.2	0.8	1.8	0.9	2.7	0.8
Rural	20.1	19.8	529	461	1.5	0.5	1.0	0.8	1.5	0.9	2.4	0.6
Urban	20.2	19.4	449	397	1.9	0.6	1.3	0.8	2.0	0.8	2.9	0.9
<i>Rural</i>												
Kurigram	19.6	19.2	512	421	1.7	0.6	1.1	0.7	1.7	0.7	2.5	1.2
Sathkhira	20.6	20.6	581	506	1.7	0.5	1.5	1.1	2.4	1.2	3.9	0.7
Sunamgon	20.4	19.5	546	482	1.6	0.6	0.2	0.1	0.5	0.3	2.9	0.4
Khagrachh	20.3	19.8	479	439	1.1	0.6	2.5	1.1	2.5	1.6	0.5	0.4
<i>Metro Slums</i>												
Dhaka	20.0	19.3	427	385	2.3	0.5	1.1	0.8	1.8	0.8	3.4	1.1
Chittagong	20.4	19.2	364	313	1.7	0.5	1.1	0.8	2.2	0.7	2.3	0.5

Source: Estimated from ERG survey (2008), Uddin (2009)

Table 3.7: Change in Consumption, by Gender and Age groups

Variable	2006			2008		
	Men	Women	Children	Men	Women	Children
meals/week	19.72	20.15	20.50	19.12	19.36	19.93
rice(gm)/day	648.60	535.28	322.62	537.02	469.42	306.31
egg(no.)/week	1.82	1.61	1.84	0.58	0.47	0.58
fish(times)/week	9.58	9.44	8.99	7.08	7.18	6.69
fish(no.)/week	1.32	1.18	1.12	0.84	0.76	0.71
meat(times)/month	2.69	2.64	2.50	1.12	1.08	1.06
meat(pieces)/month	2.02	1.78	1.75	0.95	0.86	0.81
milk(glasses)/month	2.25	1.96	3.54	0.07	0.58	0.94

Table 3.8
Percentage distribution of Households by Duration of Poverty and Divisions

Duration	All Bangladesh	Barisal	Chittagong	Dhaka	Khulna	Rajshahi	Sylhet
Total							
Last 1 year	2.9	2.1	2.3	3.8	3.4	2.6	1.1
Last 2 years	6.4	6.8	6.5	7.5	7.7	4.9	3.4
Last 3 years	12.3	12.4	19.4	13.3	11.1	8.5	7.3
Last 4 years	28.1	39.0	34.9	24.6	32.7	23.2	28.1
Last 5 or more years	50.3	39.7	36.9	50.8	45.1	60.8	60.2
Rural							
Last 1 year	2.3	2.1	2.6	2.1	2.8	2.6	0.8
Last 2 years	5.3	5.9	4.1	5.4	7.4	4.8	2.9
Last 3 years	10.9	10.1	16.7	12.6	11.3	7.8	5.5
Last 4 years	29.4	40.1	35.7	27.6	34.8	23.4	28.6
Last 5 or more years	52.1	41.8	40.9	52.3	43.7	61.4	62.2
Urban							
Last 1 year	5.5	1.9	1.7	8.9	6.3	2.7	2.9
Last 2 years	11.8	13.5	13.0	13.8	9.2	6.3	6.8
Last 3 years	18.5	31.1	26.7	15.5	10.0	16.6	20.8
Last 4 years	22.2	30.9	32.7	15.5	22.0	20.2	24.3
Last 5 or more years	42.0	22.6	25.9	46.3	52.5	54.2	45.2

Source: WMS 2009.

Table 3.9: Household responses to the food price shock (%)

	Urban	Rural	Total
Switch to lower quality food	87	88	88
Reduce nonfood expenditures	86	87	86
Reduce quantity of food intake	72	78	76
Take out loans	46	60	55
Spend savings/sell/pawn belongings	44	47	45
Decrease education expenses*	33	43	39
Work more / increase production	25	40	34
Take children out of school*	7	9	8
Assistance from community members	1	9	6
Stop loan payment	3	6	5

Note: In all cases with *, % of households with school going children is considered.
 Source: Table 6.2 in WB (2008), based on a survey in July 2008.

Table 3.10: Common Coping Strategies Adopted in Geographically Vulnerable Areas.

		Geographical			
		Monga	Coastal	Haor	CHT
Smooth consumption using Credit	Borrow money (undefined)	64	70	68	45
Income-Enhancing Activities	Work Longer Hours	91	78	70	71
	Increased household members migrating out for work	36	21	19	9
	Engage children in work (withdrawing from school)	14	12	11	4
	Sending Children under 14 to Work	4	4	3	0
Income-enhancing/ Risk Reduction Strategies	Shifting Occupation	17	25	25	27
	Diversify agriculture	0	0	0	16

Table 3.11: Percentage of Households adopting Coping Strategies

	Rural	Urban	National
Consumed seed stocks held for next season	7.3	1.4	6.0
Decreased expenditures for fertilizer or pesticide	6.7	1.1	5.0
Sold domestic assets	1.0	0.8	1.0
Sold productive assets	2.0	0.8	2.0
Sold more animals than usual	9.0	2.7	8.0
Mortgaged productive assets	6.0	2.5	5.0
Decreased expenditures on health care	23.2	19.7	22.0
Took children out of school	6.6	5.8	6.0
Sought alternative or additional job	15.9	13.3	15.0
Increased HH members out-migrating for work and/or food	4.8	3.5	5.0
Borrowed from bank or micro credit organizations	34.2	28.0	33.0
Borrowed from friends & relative	35.5	29.4	34.0
Sold advanced labor	5.9	4.5	6.0

Source: WFP

Table 3.12: Overall scenario of Bangladesh in Adopting Different Coping Strategies

Areas/Dimensions		Spend out of savings to meet current consumption		Consumption Smoothing Using Credit		Income enhancing Activities		Risk Reduction Strategy		Expenditure Saving Activities	Social Relocation
		lowest	highest	lowest	highest	lowest	highest	lowest	highest		
Rural	(undefined)	1	35.5	5.9	35.5	4.8	15.9	-	-	-	-
Divisional	Dhaka	1	34	3	34	3	11	-	-	-	-
	Chittagong	2	37	4	37	4	14	-	-	-	-
	Rajshahi	1	30	7	36	4	16	-	-	-	-
	Khulna	1	35	9	38	5	29	-	-	-	-
	Barisal	1	41	4	47	8	17	-	-	-	-
	Sylhet	2	35	9	35	5	14	-	-	-	-
Geographical	Monga	14	23	-	64	0	91	0	17	-	-
	Coastal	4	15	-	70	0	78	0	25	-	-
	Haor	3	21	-	68	0	70	0	25	-	-
	CHT	1	12	-	45	0	71	5	27	-	-
Urban	Dhaka City	0	12	-	46	0	68.5	0	31	-	-
	Chittagong City	1	6	-	48.48	2	64.65	1	31	-	-
	Urban (undefined)	0.8	29.4	4.5	29.4	3.5	13.3	-	-	-	-
Male headed HH		1	34	6	34	4	15	-	-	-	-
Female headed HH		1	33	6	33	8	17	-	-	-	-
Income	Poorest quintile	0	-	9	22	1	3	-	-	37	-
	Richest quintile	5	-	0	6	0	1	-	-	5	-
Occupation	Unskilled labor	3	-	5	15	3	3	-	-	15	-
	Skilled labor	2	-	5	14	0	4	-	-	2	-
	Rickshaw, van puller	1	-	8	17	2	7	-	-	8	-
	Business	0	-	0	11	0	2	-	-	3	-
	Salaried Employment	0	-	2	12	2	4	-	-	4	-
	All (incl. others)		-	-	49	55	-	-	-	-	-

Table 3.13: A comparison between rural and urban areas in adopting coping strategies

		Spend Out of Savings to Meet Current Consumption				Consumption Smoothing Using Credit			
		Spend Cash Savings	Consumed seed stocks held for next season	Mortgage income-generating assets	Sold income-generating assets	Sold other tangible assets/ domestic assets	Informal borrowing in cash	Formal borrowing in cash	Sold advanced labor
Rural									
Division	Barisal		11	8	3	1	41	47	4
	Chittagong		6	6	2	2	37	27	4
	Dhaka		6	4	2	1	34	31	3
	Khulna		6	7	2	1	35	38	9
	Rajshahi		5	5	1	1	30	36	7
	Sylhet		6	4	2	2	35	22	9
	Rural (undefined)		7.3	6	2	1			
Urban									
Metropolis	Dhaka City	12							46
	Chittagong City	6.06							48.48
	Urban (undefined)		1.4	2.5	0.8	0.8			

Section 4

Observed Supply Side Activities

This section elaborates on the various institutional responses to redress the adverse effects of surge in food prices and summarizes (comparative) assessments of these programs by institutions, drawing upon secondary sources. Existing canvass of various social safety net programs is described in sub-section 4.1. The institutional responses to the surge in food prices is presented in sub-section 4.2. Sub-section 4.3 presents relative assessment of existing programs with respect to targeting, coverage, leakage, and cost of operation. The section is concluded in sub-section 4.4 with some general observations on the generic types of SNP/SPs provided by the institutional players that may have worked better in the face of sudden increases in food prices.

4.1 Current safety net programs in Bangladesh – the broad canvass

One of the outcomes of the initiatives towards financial sector reforms and towards integrating PRSP accounting with the budgetary process is a recast budget heads showing the proportion of allocation made on poverty reduction measures. Thus, budget accounting shows allocations for ‘social safety nets’ (SSN) and ‘social empowerment’ (SE), which are aggregated to put claims on allocations for poverty reduction. Revised budget for 2008-9 shows allocations to SSN to account for 12.07 % of total budget, with another 2.64 % to social empowerment. The former has been raised to 12.58 % in the proposed budget for 2009-10.

Quite interestingly, the detail breakdown in the budget allocations for SSN and SE identify four broad groups; cash transfers/grant, food transfers, several sub-groups of miscellaneous program (including microcredit, newly introduced 100 days employment program and several project-specific activities), and programs in development sectors (some of which may have been wrongly included in the group). One may also note that education has been addressed as a development sector, but programs in the health sector have been completely left out of the SSN/SPs in spite of the widely acknowledged recognition that health shocks are at the root of sliding down to poverty; and safety nets could find more effective meanings if such shocks could be prevented.

Government is not the only player in the deliver of services that are commonly grouped under SSN and/or SP; several INGOs and local NGOs are also important actors. Moreover, there are instances of major engagements by development partners to channel fund through intermediary (management consultancy) agencies in such mega projects as Char Livelihood Project (CLP) and SHIREE. Many of these, such as the Targeting Ultra Poor (TUP) under BRAC, are implemented by local NGOs – small or big.

There are instances where agencies of different origins collaborate/partner in implementing SSN/SPs. For example, BRAC partners with GOB in case of IGVDG; WFP has its NGO partners as well as counterparts in the Ministry of Food and Disaster Management and/or in local government while undertaking emergency relief operations or its school feeding program. Amidst all the interplays, it is difficult to abstract reality

into a transparent canvass of activities. Yet, an attempt is made to summarize that reality in Table 4.1 below.

A scanning of various SSN programs in Bangladesh, as of end 2009, reveals the number of such programs to be around 50 or more²⁹. It also suggests that the third dimension of ‘instrument’ needs further detailing, accounting for types of transfers made – cash, kind or services and/or investments. While the list of all the programs has been made as exhaustible as possible, their characterizations in terms of the elements tabled above have been limited and tentative.

One may note, the sources of shocks may be nature or the human society and economy. In either case, activities grouped under SSN largely address coping; and in some instances, mitigation. It rarely includes activities that aim at preventing the occurrence of the shocks. Some activities to support agriculture and small farmers have recently been included in the list, which may be considered preventive measures with regards to potential food crisis. The grouping in Table 4.1 introduces two further categories, beyond cash and kind/food accounts. These are, ‘services’ and ‘mixed activities’. The former includes some of the traditional activities such as Open Market Sales (OMS), which is not considered a transfer of food, but provisioning of a service (in trading of food grain) at less than market price. The same applies for segments within microcredit. All such activities may be inclusive; or, may as well be targeted to specific groups. The traditional concepts of ‘contributory’ and ‘conditionality’ may not be applied in these cases. These are surely subsidized, and therefore, involves transfer of resources whose rational is not identical with that of ‘zero price transfers’ in the absence of a market. More importantly, delivery of services at subsidized prices presumes presence of other actors; and thus, market segmentation is critical to administer dual pricing.

Several other observations may be noted:

- Cash transfers are ‘grants’ in most cases. Other instances are as payments for services. Two important areas with which cash transfers are tied include, labor and education. There is clearly a difference in the purpose in the two cases cited – stipend to school-going children is an incentive for human development, which also acts as a cushion against adverse effects of any financial crisis at household level. In contrast, offers to engage labor at reasonable wages (which market could otherwise not support) is meant to raise income of households in distress and therefore help the target population to cope with adverse situations.
- Compared to cash, there are wider varieties under transfers in kind, which includes not only food, but asset also.
- The size of mixed baggage, in terms of both finance and the clamor, is quite large. One may also note that a hierarchy of development practitioners (in the guise of fund management agencies, INGOs and LNGOs), in addition to the sponsors and the consultants, has emerged. It may also be noted that much of the recent literature on SSN and SPs have originated from this class of practices and may blind us from seeing the bigger canvas.

²⁹ Currently there are 80 or more programs, not all of which are included.

4.2 Institutional Responses: a general overview

4.2.1 Overview of Government Programs/Responses to the Crisis

The GOB undertakes ‘safety net’ programs; often in collaboration with INGO/NGOs operating at national levels. It also includes some of the GOB-approved initiatives, but managed by sponsoring external agencies via fund management consulting agencies. While most of the programs have been in operation for some time, new ones have also been initiated of late to cope with recent developments. Each of the programs has separate stated objective, yet there is one common element - reduction of vulnerability against crisis. Up until the food price crisis, most programs operated against the onset of natural calamities or health shocks³⁰. Food price crisis set a new challenge in the sense that it was a crisis that emerged from market related issues. Other than the Open Market Sales (OMS) run by the GOB, there was no program to exclusively deal with shocks arising from market failures. However, existing programs under the GOB as well as the I/NGOs had some support system within them (for example: forced savings in credit programs, stipends or food transfers over a fixed period); and these enabled the beneficiary households to deal/cope with the shock.

A comprehensive list of existing SSN programs in Bangladesh was presented in the preceding sub-section (4.1). Allocations of budgetary resources to various items enlisted are available only for the recent years – only the aggregates are presented in Table 4.2. More than 12% of annual budget are allocated for safety net programs. Time series on allocations for a select group of SSNPs are presented in Table 4.3. There are regional differences in allocation of these resources, as captured in the first two columns in Table 4.4. The last three columns in Table 4.4 show the findings from HIES 2005 on the extent of beneficiary coverage. Of all the major programs, allocation to VGF registered the highest increase in 2007-08 reflecting the GOB’s priority. Total allocation on SSN programs declined once the price spiral subsided in 2008-09.

Nation-wide estimates on coverage under SSN programs are rather limited. Data from HIES 2005, presented in GED (2008), show 15.6% of rural households to have benefited from such programs. Recently concluded WFP study is the only other nation-wide survey that captures changes in such coverage by individual programs. The figures for 2008, when compared with those in 2007, clearly indicate coverage for most major programs to have increased by more than double. In terms of percentage points, increases had been impressive in cases of VGD, VGF, TR and GR. The budgetary supports that the Government of Bangladesh received from the development partners and the Multilateral Financial Institutions helped Bangladesh in addressing the challenges at hand during the food crisis. Findings from WMS 2009 reveal that Food for Work was extensively carried out and so was VGF. Of all the survey respondents, 56 percent reported of benefiting from FFW while almost one-fifth reported of benefiting from VGF with possible overlaps. Such high figure on account of FFW (currently CFW) is due to a newly introduced national level program guaranteeing employment for 100 days.

³⁰ Loss in crop due to flood/drought and serious illness/accident of family members accounted for more than half of responses identifying the causes of household level crisis (see Table 4.7).

Box 4.1: An Assessment from within

Several high level government officials were interviewed to get their assessment of the various programs undertaken during the period of food price increases. The officials ranged from Ministry of Food, Ministry of Planning, and Food Policy Monitoring Unit under the Ministry of Food and Disaster Management. The summary is presented below, some of which may repeat what has been mentioned already.

The GOB sought three major strategies to increase the supply of food during the food price hike.

1. Government tried to increase crop production through agriculture subsidy on (inputs for) production, activating extension and marketing services and through agriculture rehabilitation. These efforts are claimed to have borne fruitful results. While Aman rice production was hampered due to cyclone *Sidr*, it is claimed that the country experienced three consecutive bumper crops since then largely due to these government efforts, and as a result, food security had improved.
2. The GOB tried to increase food stock through import in two different ways, but failed.
 - a) Import through food aid, which was less effective due to time constraint.
 - b) Import through government's own fund that was not very successful as exporters did not sell at genuine price. International rice markets failed to perform and export restrictions, particularly from India, pushed the price from \$450/mt to \$1000 per metric ton!
3. Failed attempt at bilateral trade negotiation: Bangladesh tried to purchase rice from India. During that crisis their high officials came and promised to sell 500,000 tons of rice, which unfortunately came two and half years after the commitment.

There were three government initiatives to protect the poor from the adversities of food price rise:

1. Allocation on all SSNPs was increased both through coverage and amount. It was applicable not only for food security programs like VGD, VGF or OMS but also for other regular SSN programs like Old age allowance, Allowances for the Widowed, Deserted and Destitute women, etc.
2. OMS was implemented both by local government and through BDR, which was claimed by the officials to be a success. FFW and CFW were also partially effective - allocation of 13 lac tons of rice was made. The interim government however had limitations.
3. New program was introduced - 100 days employment scheme, which was less effective due to leakage and weak program design.

An informed senior official with high educational background, made the following additional observations on the achievements:

Due to leakage the food security programs were not as effective as expected. And there is no empirical evidence of one or two such programs to be the best. It always depends on the situation.

Other allowances (Old age, widow, maternity, destitute and disabled allowance etc.) were definitely supportive during price hike. Otherwise, poor people could have faced greater disaster.

All officials interviewed opined that no remarkable achievement could be claimed by the NGOs during the period of price shock. It is asserted that the NGOs had good opportunities to contribute, but failed to deliver – possibly, due to conflicts of interest.

There were several other responses at the macro level - the 5% duty due on import of rice and wheat was completely withdrawn. A ban was also imposed on export of rice. The government encouraged private importers to import rice and wheat. Such moves helped in easing the crisis in supply of foodgrain, though the interim government's anti-corruption drive and because of a failure by some key agencies within the government to distinguish between storage and speculative hoarding, the outcome was less than optimal.

Often transfer modalities are discussed devoid of the institutions and the potential roles (or, conflicts of interest) of organizations are brushed aside in discourses on delivery of safety net services. Confronted with the urgency of maintaining the prices of food grains within tolerable bands, the paramilitary Bangladesh Rifles (BDR) was assigned with the job that was traditionally carried out by the DG Food personnel. The BDR initiated its Operation *Dal Bhat* as part of which it sold government subsidized rice from March 2007 initially through 25 shops in Dhaka city. The scope of the operation was enlarged to include other items such as edible oil, pulses and dates (during the month of *Ramadan*) later during the year. At the height of the *Dal Bhat* Operation at one point the BDR utilized 210 selling outlets of which 100 were in Dhaka city alone.³¹

4.2.2 Responses of Non-Government Players to Food Price Increases

One needs to differentiate between multilateral agencies which either fund initiatives or act as fund-mobilizing agency to liaison between sponsors and implementing agencies; so called INGOs³² whose central management is located elsewhere and have sister agencies working in other parts of the world; and the local implementing agencies. Of the latter, various departments/agencies within the government have a large share. The national (as well as local) government also mobilizes additional fund to engage in various safety net programs. And of the local non-government agencies, one may differentiate between registered NGOs engaged in service delivery, mostly commissioned by external sponsoring agencies; microfinance institutions (MFIs); organized philanthropic social groups; and individuals keen on doing 'good' to the society and/or invest on building electoral constituency.

Food crisis in Bangladesh came in the form of sharp increases in food prices, which is widely acknowledged to have originated from international market. It however came during a time when a caretaker government was in power and allegedly there were multiple nodes of power, not always having coordination among them. Two contradictory stands surfaced: (i) professional engagement in seeking information and planning to tackle the situation devoid of any design to serve any given interest; and (ii) mistrust on business with 'holier than thou' zeal from the military segment of the power structure. Since uncertainties around food supply further aggravated due to two consecutive natural

³¹ While the 100 days employment program was scaled up in spite of poor implementation during its inception year, Operation *Dal Bhat* faced misfortune; and some critics of the program link the bloody mutiny within some section of BDR with the various failures of that Operation.

³² Social clubs, such as, the Lions and the Rotary, are internationally connected and have very strong networks within the country. During times of crisis, such as the food price surges or cyclones, these agencies have played important roles, which have largely remained unnoticed.

calamities (flood in the northwest and Sidr in the southern coast) and as a result of unfriendly gesture from India, the primary source of Bangladesh's food imports; there were enough policy noises to make some of the aforementioned actors dysfunctional. In brief, MFIs were adversely affected due to poor recovery connected to slowing down of the economy and disruptions in the informal sector; private funds did not surface formally because of the drive against corruption; and many of the NGOs are alleged to have got caught in fund-raising in the backdrop of flood and Sidr. Thus, the institutional space was largely occupied by the government sector, with supports from multilateral agencies/ external development partners. WFP assessment claiming that "Numerous factors provide more than ample evidence and justification for continued external support and income transfers in the form of cash and food aid" is one example. In those instances, asset transfers were in line with putting the cyclone-affected region to get back on track with regards to food grain production.³³

There are however programs which are integrated and largely handled by the external agencies. Examples include, Integrated Food Security Programs (IFSP), Food for Education (FFE) that later turned into Cash for Education (CFE) with a program component named School Feeding. GOB-WB supported VGD, FFW, etc. All these programs, as noted earlier, had been scaled up to address the net of poor and vulnerable enlarged due to food price crisis.

4.3 Comparative assessment of programs

4.3.1 Targeting

Targeting may be undertaken on the basis of numerous criteria. Some of the more popular methods are on the basis of landholdings (say, households owning less than 5 decimals of land), on geographical locations (based on food insecurity maps), or on community based surveys. Each method poses its own set of drawbacks. For example, when selection is done on the basis of land holdings, a lot of non-poor households with little land holdings stand a chance of being included. A WB report suggests that 59% of the poor have less than 5 decimals of land, and such landlessness applies to 36% of the non poor. Thus any given program, that uses land ownership as the selection criteria, has a fairly good probability of selecting the non- poor. One therefore observes, in practice, multiple targeting criteria being used by most programs. Some of the additional criteria include day laborers, female headed households, etc.

When selection is done on the basis of poverty maps, there stands the obvious fact that the extreme poor in the relatively non-poor regions will not be included. There is also a great danger of excluding a poor region due to possible error in identification of poor and non-poor regions by using the small areas estimation method.

³³ A pick-list of possible responses included housing, fishing equipment, agricultural input, agricultural equipment, irrigation, trees, road infrastructure, embankments, school, health facilities, etc. Save the Children UK and US are implementing a cash and asset based food security recovery project – reaching more than 4000 families

Community based surveys stand a good chance of selecting the poorest segment of the population from the given community. However, if there is too much reliance on particular members, such as village chairman, or school head teacher, than personal connections may bias the outcome and the very poor or voiceless may be crowded out in the selection process. As pointed out by Conning (2001), community-based targeting poses two major threats. First gains from utilizing local information and social capital may be eroded by costly rent-seeking. Second, the potential improvement in targeting criteria from incorporating local notions of deprivation must be tempered by the possibility of program capture by local elites, and by the possibility that local preferences are not pro-poor. In the case of 100 day employment, it was found that although the involvement of a number of people and consultations with relevant individuals was specified in the guidelines, in several cases, the UP Chairman or members did not consult anyone else in deciding who should be on the list. In depth interviews revealed a preference towards known people in the selection process (BRAC, 2009).

Table 4.5 lists some of the established targeting criteria used by some selected programs. The focus has been on poor; and other than OMS, none of the programs is packaged to address exclusively the food price shock.

Apart from the targeting criteria, there exist some in-built components of the programs that lead to some selection bias when targeting. For example, programs that are tied to micro-credit will be biased towards households that stand a potential in engaging in income generating activities and will most likely leave out the elderly. The same applies to programs that require physical labor – example RMP, or involves training – example VGD.

4.3.2 Leakage

Leakage can take place in two forms. The first is in the form of selection error - either, a non poor household may be included in a program targeted for the extreme poor, or an extreme poor may not be included in a particular program. Apart from this another type of leakage may be that all of the promised program benefits do not reach the beneficiaries as they are appropriated along the distribution channel.

Selection error may be curtailed when the programs are largely self-targeted. Self targeted programs owned by the government and where the choice of beneficiaries is implemented by responsible (and accountable) local body, the chance of success is high (Zohir *et al*, 2007). The idea is confirmed by Akhter *et al* (2007) where the FFA (Food for Asset creation) – a program where men and women work together in a largely onerous job of earth moving – is found to benefit largely the poorest 10% of all households in their income group. The job is very low paying and tedious and thus largely self targeted.³⁴

Another factor affecting the success of a program is the number of intermediaries involved. A study by the World Bank (Khan *et al* 2006) reveals that leakage is lowest in

³⁴ Because FFA was phased out in 2006, it has not been included in larger detail in this paper.

RMP, standing at less than 5%.³⁵ The World Bank points out the limited number of intermediaries involved in program implementation. The same paper points out that program, such as, VGD and other food transfer programs depend on the public food distribution system, with food being loaded and unloaded at a number of points before finally being delivered to beneficiaries. PESP also involves a large number of intermediary-level ‘beneficiaries’ – involved in selecting students, disbursing stipends and monitoring the program; and reveals an initial leakage of over 20%.

Establishing clear guidelines and specifications on the selection criteria, and successfully disseminating them to the field workers is of course critical for curtailing leakage. The 100 day program, which was hastily launched in September, 2008 lacked any such guidelines and as a result performed much worse, in terms of targeting, compared to other comparable programs such as the IGVGD. In a study on the first phase of the 100 day employment program, Brac found that 2.2% of the program beneficiaries belonged to the richest 20% of the population; and 37% of the beneficiaries were from the poorest 20% of the population where as 67% was from the poorest 40%. The paper explained that this relative low level of outreach to the extreme poor was largely due the absence of clear guidelines on how to identify extreme poor. Moreover, the Implementation Guidelines were unclear as to whether only the extreme poor were to be targeted.

4.3.3 Coverage and cost

Information is scanty, particularly on program cost. Basic information on three selected programs is presented in Table 4.6.

While cash transfers involve additional cost on account of administering them, transfers in kind involve additional cost due to transportation. At times, such costs are incurred by the beneficiaries as well.³⁶ For IGVGD the main cost is in terms of transporting wheat. NGOs are used for maintaining savings accounts. In the case of PESP the largest cost is a bank fee of 2.5%. (Ahmed 2005). The 100 day employment is the largest program initiated by the GoB that is focused on employment generation. It started with an estimated outreach to 2 million households or 10 million beneficiaries (Brac, 2009). To minimize appropriations, the GoB ensured that all steps of payment are checked by a higher authority before the fund is sanctioned. This, however, significantly raised the transaction costs of the program.

4.4 Concluding Observations

Social safety nets had historically been associated with natural shocks (causing disruption in production) and structurally determined poverty; and non-government agencies had significant roles to play in the past. The peak in such participation was possibly during

³⁵ Comparative assessment made in Khan et al (2006) was for the period preceding the price surge. No study, to the authors’ knowledge, attempted to assess if the parameter values for leakage, targeting, etc. varied in a regime of high prices.

³⁶ In a study on impacts of rat infestation in the CHT, Zohir (2007) finds the relation between costs and the method of transfers as well as points of disbursements chosen.

the prolong flood in 1998. Since then, there has been a gradual shift; though various local and international NGOs continue to be important as implementing agencies, either directly commissioned by external partners or in partnership with the government agencies. The food crisis, as reflected in surge in food prices during 2007-08, brought about a significant departure from the past norm. The crisis did call for urgent attention to the needy with relief in kind. Yet, that was not feasible without addressing the aggregate supply situation; and only the government, in association with external partners (where such assistance was extended) could engage in that space. It also called for addressing supply through ensuring higher production in the seasons to follow, which involved policy interventions in several spheres (inputs and output, and in their distribution and procurement), which was beyond the scope of non-government actors. It is therefore no wonder that the policy responses identified by an ADB report (see Table 4.10) clearly hint at spaces that go beyond the traditional menu of SSNPs. In spite of it, the latter had limited roles, which are highlighted again.

- OMS distributed at spots close to clusters with poor people helped keeping prices affordable for some urban poor. However, difference between OMS and market prices cannot be expanded beyond a small margin in the absence of sufficient stock (expected during a food crisis), and because higher margins attract wrong kind of players to trade between segments in the market.
- Cash for employment and cash transfers under other SSNPs helped the beneficiary groups. Some of the non-beneficiaries, poor and those with fixed cash earning are likely to have been adversely affected by such policy. There is however hardly a study on the latter, nor a study on the sociological implications of prolonged distress.
- Policies to increase production over the short-term had been more effective since it allowed aggregate supply to increase and the process of realizing it also allowed poor wage earners to adjust their payoffs (incentives led increases in production raised labor demand and wages).

Statistical Annex to Section 4

Table 4.1: Social Safety Net Programs in Bangladesh

S/no	Name of Program	Purpose	Area
CASH ONLY			
Grants – Non-Contributory & Non-Conditional	Old Age Allowance	Coping	None
	Allowances for the Widowed, Deserted and Destitute women etc	Coping	None
	Retirement allowances for government officers/staffs	Coping ?	None
	Allowances for insolvent/poor amongst pre-defined target groups (disabled, freedom fighters, martyars, mothers, homeless children, non-Bengalees, artists, etc.)	Coping	None
	Disaster relief - in cash	Coping	None
In return for services – Non-conditional	Rural Employment and Rural/Road Maintenance Program (RMP)	Mitig & Coping	Labor
	Cash For Work (CFW)	Mitig & Coping	Labor
	100 days Employment Scheme	Mitig & Coping	Labor
	Rural employment opportunity for public asset	Mitig & Coping	Labor
In return for services – Conditional	Primary Education Stipend Program (PESP); Female Secondary School Assistance Program (FSSAP)	Mitig & Coping	Education service
	Female Secondary School Assistance Project/ Female Secondary Education Stipend	Mitig & Coping	Education service
	Stipend for disabled and grants to schools for disabled	Mitig & Coping	Education service
	Stipend for primary level students	Mitig & Coping	Education service
	Stipend for drop-out students	Mitig & Coping	Education service
FOOD/KIND			
Grants – Non-Contributory & Non-Conditional	Test Relief (TR)	Coping	Food
	Gratuitious Relief (GR)-Food	Coping	Food
	Food Assistance in CTG-Hill Tracts Area	Coping	Food
	Vulnerable Group Feeding (VGF)	Coping	Food
Grants - Conditional	Vulnerable Group Development (VGD)	Mitig & Coping	Food & Asset
In return for services – Non-conditional	Food For Work (FFW)	Mitig & Coping	Food & Labor
	Food For Education (FFE)/Cash for Education (CFE)	Mitig & Coping	Food & education service
Services - conditional	School feeding program under FFE/CFE	LT Mitig & Coping	Food & education service
Community- Non-Conditional Resource transfers	Cluster village (Climate victim rehabilitation project)	LT Prevention	Land for housing
	Building of shelters in flood prone and river erosion areas	Coping	Housing service
	Rehabilitation of houses of landless affected by Sidr	Coping	House repair & maintenance
	Disaster Relief – materials	Coping	Specific materials

Table 4.1: Social Safety Net Programs in Bangladesh (continued)

Slno	Name of Program	Purpose	Area
REMOVING EXCLUSION (Services & Subsidy)			
Food	Subsidy for Open Market Sales (OMS)/ includes BDR shops	Coping	Food
Subsidy agriculture	Subsidize inputs to increase production	Prev & Mitigation	Input markets
	Support to agriculture - small farmers	Prev & Mitigation	--
	Rural development project on partnership basis	--	--
Credit	Microcredit	Mitigation	Credit market
	Credit for Low-cost housing	Mitigation	Credit & housing
Education	Primary education related program	Mitigation	Education service
	Basic education for urban working children	Mitigation	Education service
Health/Nutrition	The National Nutrition Project (NNP)	Mitigation	Service
	Workers welfare fund for lactating working women	Mitigation	Service
	Maternal health voucher scheme	Mitigation	Health service
Shelter	Program on shelter for the Poor	Mitig & Coping	Housing service
MIXED PROGRAMS			
InGOB agencies	Integrated Food Security Program (IFSP) a component of which is UPVGD	Mitig & Coping	inter-linked
	Appropriate Resources for Improving Street Children's Environment (ARISE)	Mitig & Coping	inter-linked
INGONGO/ Fund manager	Targeting Ultra Poor – BRAC	Mitig & Coping	inter-linked
	Employment for extreme poor – North	Mitig & Coping	inter-linked
	Economic Empowerment of the Poor - Shiree/Dfid	Mitig & Coping	inter-linked
	Char Livelihood Project – Dfid	Mitig & Coping	inter-linked

Note: Mitig. = Mitigation; Prev. = Prevention. 'None' under 'area' column implies cash transfer that is 'neutral', that is, does not directly influence the sector-bias in household expenditure.

Source: Compiled by the authors.

Table 4.2: Budget Allocation to Social Safety Nets and Social Empowerment

	2009-10	2008-09 (revised)
Social Safety nets		
Amount (crore taka)	11361.3	14320.35
% of annual budget	12.07	12.58
% of GDP	1.85	2.09
Social Empowerment		
Amount (crore taka)	2483.99	3006.98
% of annual budget	2.64	2.64
% of GDP	0.4	0.44

Source: Annual Budget 2009-10. MOF.

Table 4.3: Financial Allocation for Major Safety Net Programs (1999-00 prices)

Program	1999-00	2000-01	2001-02	2002-03	2003-04	2004-05	2005-06	2006-07	2007-08
Food for Work (FFW)	8060	8682	6728	4123	2047	4040	2197	2638	2609
Gratuitous Relief (GR) & Test Relief (TR)	2280	2315	2319	2201	1896	1623	2687	2602	3019
Vulnerable Group Development (VGD)	2720	1952	2367	1865	1751	1736	2447	2580	2859
Vulnerable Group Feeding (VGF)	2290	2914	1250	992	1490	811	1883	3040	5643
Allowance for Widow	250	245	239	370	777	964	1022	1102	1522
Honorarium for Freedom Fighters	150	147	275	263	155	175	318	424	503
Old Age Allowance	490	490	477	686	1555	2109	2385	2712	3136
Primary Education Stipend Project (PESP)	0	1099	954	5485	3749	4219	3356	3305	3270

Source: WB 2008.

Table 4.4: Distribution of SSNP Benefits

Division	% of households		% of households receiving SSN benefits		
	In total	Of all beneficiaries	total	rural	urban
Barisal	6.2	6.4	13.34	14.79	5.00
Chittagong	17.2	14.6	11.06	12.89	5.72
Dhaka	33.2	36.6	14.27	19.98	4.94
Khulna	12.1	8.9	9.58	11.03	4.23
Rajshahi	25.7	23.9	12.07	13.02	6.71
Sylhet	5.5	9.5	22.42	24.31	11.25
Bangladesh	100.0	100.0	13.02	15.64	5.45

Source: GED (2008). Based on HIES 2005 findings.

Table 4.5: Targeting criteria for selected programs

Name of Program	Targeting Criteria
Food For Work (FFW)	<ol style="list-style-type: none"> 1. Functionally landless. 2. Lack of productive assets. 3. Day laborer or temporary workers. 4. Family headed household where women is widowed, deserted and destitute.
VGF	<ol style="list-style-type: none"> 1. Day laborer whose income is low or irregular. 2. Landless or those who have less than 0.15 acres of land. 3. Autistic persons or wife of physically disabled person. 4. Destitute poor women/men affected by natural disaster.
VGD	<ol style="list-style-type: none"> 1. Landless or households with not more than .15 acres of land. 2. Monthly household income is less than 300; depend upon seasonal wage employment. 3. Lack of Productive Assets. 4. Day laborer or temporary workers. 5. Women must be aged between 18- 49.
IGVGD	<ol style="list-style-type: none"> 1. Being widowed separated, deserted, divorced, or having a disabled husband. 2. Owning less than 50 decimals of land. 3. Lack a regular or adequate income (set at TK. 300 per capita per month, or about a quarter of the WB 'dollar a day' poverty line). 4. The household depends on wage labor for at least 100 days per year. 5. Lacking productive assets. 6. Not being a member or beneficiary of other programs or NGOs.
Test Relief Program & Gratuitous Relief	<ol style="list-style-type: none"> 1. Poor People
100 day employment guarantee	<ol style="list-style-type: none"> 1. Poorest 5% of the selected Upazila 2. Upazila was selected on the basis of the 2004 GOB-WFP poverty map
Primary Education Stipend Project (PESP)	<ol style="list-style-type: none"> 1. Poorest 40% pupils enrolled in primary schools.
Female Secondary School Assistance Program (FSSAP)	<ol style="list-style-type: none"> 1. Female children between the age of 11 and 15 from poor families.
Old Age Allowances	<ol style="list-style-type: none"> 1. At least 65 years of age. 2. Income not more than Tk. 2000 per year. 3. Must not have worked in the formal sector.
Allowance program for widowed, deserted and destitute women	<ol style="list-style-type: none"> 1. Poor, helpless left by their husbands. 2. Women who are widowed.
Rural Maintenance Program (RMP)	<ol style="list-style-type: none"> 1. Less than 30 decimals of land. 2. Destitute family circumstances. 3. Family headed household where women has 18-35 years of age. 4. Widowed or separated at least one year. 5. No other income and not participating in other targeted programs.
Char livelihood program	<ol style="list-style-type: none"> 1. Have been resident on an island char for at least six months. 2. Are landless - owning no homestead land and having no access to agricultural or productive land, including that to be inherited under Bangladeshi government law. 3. Are asset less - do not own income-generating assets with a value exceeding Tk. 5,000.
OMS/Operation <i>Dal Bhat</i> of BDR	Sold near poor clusters with restriction on quantity in each transaction.
Targeting Ultra Poor (TUP)	<ol style="list-style-type: none"> 1. The household is dependent upon female domestic work or begging 2. Ownership of less than 10 decimals of land 3. No male adult active members in the household 4. Children of school going age have to take paid work 5. No productive assets in the household

Table 4.6: Features regarding three selected programs

Factor	IGVGD	PESP	RMP
Use of Banks for delivery	Partial	full	Full
Service Charge paid to bank	No	yes	Yes
Group based distribution of benefit	No	no	Yes
Attachment to NGO for administering	Yes	no	Yes
Attachment to NGO for borrowing	Yes	no	No
Attachment to NGO for training	Yes	no	Yes
Origin of fund	GOB+Foreign Aid+NGO	GOB	GOB+foreign aid
Payment interval	Monthly	monthly	Fortnightly
Interest on savings for the beneficiary	Yes	no	Yes
Program coverage	Minimum 30 women per union parishad	40% of poorest students of each union level primary school	Maximum 10 women per union parishad
Extent of program coverage (no. of unions)	2742	4463	4140
Program cycle	24 months	60 months	48 months
Contemporary yearly number of beneficiaries	292200	5236889	41400
Amount of transfer per person	30 kg of wheat per person per month	Tk 100 per month for one student and Tk 125 if more than one student in a family	Tk 51 per person per day (Tk 10 pppd deducted for compulsory savings)

Source: Ahmed (2005).

Table 4.7: Percentage Distribution of Households by Type of Crisis faced

Type of crisis faced during 1 year preceding survey	Bangladesh	Rural	Urban
Business is closed	12.5	11.1	18.2
Loss of crop due to flood/drought	25.5	29.4	10.3
Loss of job of the earning member	3.8	2.3	9.8
Salary of the earning member is stopped	3.4	2.8	5.4
Serious illness/accident of family member	26.0	25.6	27.4
Death of the earning member	5.2	5.0	6.0
Assistance stopped from external source	5.0	5.6	2.7
Split of family	4.3	5.0	1.9
Expenditure on dowry/marriage	6.7	6.9	6.1
Theft/robbery/fire	4.7	3.8	8.0
Eviction from house/land	1.8	1.6	2.6
Litigation in court	5.1	5.6	3.4
Lack of security	0.3	0.4	0.1
Others	25.9	26.7	22.8

Source: WMS 2009.

Table 4.8: Percentages of Households Receiving various SSN Assistance

Social Safety Net	Implementer	Type	2007	2008
Primary education stipend programme	GoB	Cash	5.8	8.0
Vulnerable group feeding	GoB	Food	2.4	5.1
Vulnerable group development	GoB & WFP	Food	2.9	4.5
Test relief: employment generation, after disasters	GoB	Food	1.4	4.0
Relief: gratuitous relief & other relief to disaster prone areas	GoB & partners	Food & other materials	2.4	6.4
School feeding	WFP	Food	0.6	1.0
Food-for-work: employment generation for poor in dry season	GoB & partners	Food	0.2	0.4
Cash-for-work: including 100 days employment programme	GoB & partners	Cash	0.6	1.9
Microcredit	Development partners	Cash	0.3	0.6
Nutrition intervention	GoB & partners	Food	0.2	0.3
Free seed	GoB & partners	Agriculture input	0.2	0.8

Source: WFP.

Table 4.9: Type of SSNP provided assistance (Multiple answers)
(percentages of respondent households)

Name of the Items	Findings from WMS 2009
Food for Work	56.8
Food for Education	5.6
VGF	18.8
VGD	6.9
Old Age Pension	9.5
KSS	0.1
DSS	0.1
Bank loan for livestock/fishery	0.3
Adult Literacy Program	0.3
Other Govt. Programs	17.0

Source: Report on Welfare Monitoring Survey-2009

Table 4.10
Policy Response: an aggregate view

	ADB	Authors
Reduce Import Duties		√
Increase Supply Using Reserves	x	Decision delay due to interim nature of governance
Build Reserves/Stockpiles	x	<as above>
Increase Imports/Relax Restrictions	x	Conflicting decisions
Raise Export Duties		
Export Restrictions		√ (enforcement problem)
Price Controls/ Consumer Subsidies	x	√ (limited via OMS)
Minimum support Prices	x	
Minimum Export Prices		
Assistance/Subsidy to Farmers	x	√
Promote Self-sufficiency	x	√
Actions against/ Appeals to Profiteers		√√
Cash Transfer		√
Food Ration/ Stamp	x	Only in cyclone affected areas

Source: ADB (2008) and own assessment.

Table 4.11 Summary Information on Government Programs

Program name	Key objectives	Administration and Finance	Targeting criteria and conditions	Value of benefit	Current annual cost and number of beneficiaries
Primary Education Stipend Project (PESP)	<ul style="list-style-type: none"> • Increase enrolment from poor families • Reduce dropout • Increase rate of completion • Control child labor • Raise quality of primary education 	<p>Ministry of Primary and Mass Education</p> <p>Financed by GoB</p>	<p>Destitute women-headed households</p> <p>Principal occupation of the household head is day-labor</p> <p>Families from low-income professions (fishing, weaving, blacksmith)</p> <p>Landless or less than 0.50 acres of land</p> <p>Conditional on meeting attendance and examination criteria</p>	<p>Tk 100 (one student in the household)</p> <p>Tk 125 (more than one student in the household)</p> <p>Payment is made to mothers' bank accounts</p>	<p>US\$ 100 million</p> <p>Over 5.3 million beneficiaries per annum</p> <p>Administrative costs about 5% of programme cost</p>
Female Secondary School Assistance Programme (FSSAP)	<ul style="list-style-type: none"> • Increase the number of girl students in secondary schools • Increase employment and self-employment among women • Reduce underage marriage 	<p>Ministry of Education, Directorate of Secondary and Higher Education</p> <p>Financed by GoB, USAID, Asia Foundation, NORAD, World Bank, ADB</p>	<p>All unmarried girl students studying in recognized institutions at secondary level</p> <p>Conditional on meeting attendance, examination, and marriage criteria</p>	<p>Stipend ranging from Tk 300 (class VI) to Tk 720 (class IX and X)</p> <p>Free tuition</p> <p>Book allowance</p> <p>Examination fees</p> <p>Cash is paid to beneficiaries</p>	<p>US\$ 40 million</p> <p>Over 4 million beneficiaries annually</p> <p>Administrative costs about 18% of programme cost</p>
Vulnerable Group Development (VGD) (Components: FSVGD, IGVGD, UPVGD)	<ul style="list-style-type: none"> • Developing life skills through training, savings for initial capital accumulation and credit • Building social awareness on disaster management and 	<p>Ministry of Women and Children Affairs, Directorate of Relief and Rehabilitations</p> <p>Financed by GOB,</p>	<ol style="list-style-type: none"> 1. Households with not more than 15 acres of land 2. Monthly Household income less than Tk. 300; dependent upon seasonal wage employment 3. Women of reproductive (18- 	<p>a. 30 Kilograms of wheat per month</p> <p>b. Training (totaling about 150 hours)</p> <p>c. Per cycle of 24 months</p> <p>On graduation, beneficiaries can access BRAC's microcredit</p>	<p>US\$40 million</p> <p>Close to 500,000 beneficiaries annually</p>

	nutrition through training in groups	WFP, EC, Canada, Australia	49) age 4. Day labor or temporary worker 5. Lack of productive assets	programme. Food transfer by the public food distribution system	
Food-for-Work (FFW)	1. Employment generation for the poor, mainly in the dry season through infrastructure creation and maintenance. 2. Developing and maintaining rural infrastructure	Department of Local Government Eng. Dept; Department of Social Services; Other Dept. Financed by GOB, ADB, WFP	1. Functionally landless 2. Lack of productive assets 3. Generally women headed household where women is widowed, deserted, and destitute 4. Day labor or temporary worker 5. Income less than Tk. 300 per month	a. No specific entitlement Food transfer by the public food distribution system	US\$40 million About 1,000,000 participants annually
Rural Maintenance Programme (RMP)	1. Empowerment of women 2. Maintaining rural infrastructure	Department of Local Government and Engineering, CARE-Bangladesh Financed by GOB, EC, CIDA, Union Parishads	1. Less than 30 decimals of land 2. Destitute Family circumstances 3. Female heads of households of 18-35 years of age 4. Widowed or separated at least one year, with priority to those with more dependents 5. No other income and not be participating in other targeted programmes.	a. 51 Tk. per day This is a public works programme where cash is being transferred by the public sector banks	US\$16 million About 42,000 participants annually Administrative costs about 20% of programme cost
Test Relief (Rural Infrastructure Maintenance Programme) (RIMP)	1. Employment for the poor in the rainy season 2. Developing and maintaining rural infrastructure 3. Compared to FFW, lighter labor requirement	Ministry of Food and Disaster Management Financed by GoB and Development Partners	Generally a location is targeted	5-6 kg. of wheat/day of work Generally food transfer is being by the public food distribution system	US\$1 million About 100,000 beneficiaries annually
Old Age Allowance	Providing old age cash allowance to the poor.	Department of Social Services Financed by GoB	1. At least 65 years of age 2. Income not more than Tk. 2000 per year 3. Must not have worked in the formal sector 4. Based upon the category of the union, number of beneficiary is identified 5. 50% men and 50% women	a. Tk. 165 per month Cash is being transferred by the public sector banks	US\$30 million. About 1.2 million beneficiaries annually.
Vulnerable Group Feeding (VGF)	1. Provides calamity related emergency needs	Ministry of Food and Disaster	Generally a location is targeted based on the occurrence of	No specific entitlement	US\$30 million

	2. Short term relief to disaster victims – in terms of food and basic necessities.	Management Financed by GoB and some Development Partners	natural disaster	Generally food is being transferred by the public food distribution system	About 240,000 beneficiaries annually
Gratuitous Relief (GR)	1. Provides in calamity related emergency needs 2. Short term relief to disaster victims – in terms of food and basic necessities.	Ministry of Food and Disaster Management Financed by GoB and some Development Partners	Generally a location is targeted based on the occurrence of natural disaster	No specific entitlement No precise method	NA
Allowances for Widowed, Deserted, and Destitute Women	Minimizing the problems of the women in distress through cash transfers.	Ministry of Women and Children's Affairs Financed by GoB	1. Women who are either widowed, deserted, or destitute 2. Based upon the category of the union, number of beneficiary is identified	a. Tk. 165 per month Cash is being transferred by the public sector banks	US\$3 million. About 100,000 beneficiaries annually

Source: Naomi (2007).

Section 5

Summary and Recommendations

Time series on price movements clearly reveal of a surge in prices in January 2007, peaking in October 2008 and returning to its historical path only during early 2009. Preliminary evidence also suggests that the price increase was largely ‘imported’. While non-food prices had also increased pushing the inflation rate to two digits level, it was less than proportional to increases in food prices. Thus, a net buyer of food ended up being a loser unless she/he had ways to adjust income in the same (or higher) proportion than inflation rate. Review of findings from secondary studies show that day laborers, people with fixed and low income, large families with few earning members (i.e., high dependency ratio), female-headed families (for example: widow/divorced, separated/abandoned), small and marginalized farmers who are net buyers of staple, small job holders in urban areas and self-employed people were severely affected due to soaring food price. Noteworthy amongst the most affected in urban areas are small shop owners/vendors on footpaths, beggars, garments workers, masons, etc. Rickshaw pullers and other drivers (of van, CNG, cab, etc.) did not suffer as much since they charged higher fare to people. The study notes that the low earning fixed income group in urban areas with little or no access to land-based resources was also severely affected, but very little information exist on them.

While the context was food crisis in Bangladesh, the purpose of the exercise was to find ways to strengthen social safety nets to mitigate adverse impacts of the food crisis. For a comprehensive understanding of the roles SSNs may play in the mitigation effort, a simple framework was proposed; where SSNs are perceived as services for which there are demands and there are various providers of such services. Much of the demands, it is claimed, are revealed in the various coping strategies that poor households adopt when they face crisis. Ideally, the two sides can be matched in space defined by three dimensions – objectives, instruments and intervention area/market. This section summarizes the observations on household responses and institutional engagements, prior to drawing inferences from such matching.

Within the simple framework of consumer choice, household responses to food prices were posed. It essentially involved three dimensions – choice between leisure and labor; between various consumables when the earning from labor remains unchanged; and inter-temporal choices made on leisure, labor and consumables. Empirical categories, such as, sale of assets, borrowing, expenditure saving activities, etc. are placed within such a framework. Available information on household responses has accordingly been summarized. The findings generally conform to the expectations – switching to lower quality consumables, resorting to expenditure-saving activities, sale of assets (or dis-saving) and increased borrowing are expected due to increase in food and non-food prices. There have also been efforts towards increasing income. In most cases, this was realized by working more hours – in the same job or seeking multiple employments. Wage rates could be raised in only in a limited number of activities, such as, rickshaw pulling and agriculture wage labor. Since the period of food crisis in Bangladesh also

coincided with general slowdown in economic activities as a result of political uncertainty, income adjustments were slow.

Institutional responses to food crisis were of two kinds – at national policy level to increase the size of foodgrain availability; and scaling up existing social safety nets. It has been argued that the presence of the government in all these has expanded over time; and more so during the period of food crisis. While OMS did very little to dampen the domestic price level, it succeeded in providing urban poor limited access to foodgrain at administered prices. More effective, however, had been the policies that aimed at increasing domestic production of foodgrain.

Table 5.1: Matching the two sides of SSN services

Items	Demand	Supply	Relative standing/Remarks
Cash	82.6	n/a	There is high demand for credit.
Food	50.2	88.1%: FFW,FFE,VGF& VGD	ES. There is possibly overlapping and leakage in the food transfers
Employment	30.1	FFW: 56.8%	ED. WMS reports high coverage under FFW in 2009 while WFP reported the figure to be low in 2007 & 2008. EMS of BBS reports high under-employment rate (36%) in 2009.
Health services	19.4	Info na	Attending to health needs at hh level was most adversely affected due to increase in food prices. No measure is known to have been taken to attend to it.
Education	n/a	5.9%: FFE, Adult literacy	ED. Household generally gets tied to long term commitments with regards to expenditure on education from which it finds difficulty to withdraw during times of food crisis.
Credit	13.3	0.4 % : DSS & Bank loan for livestock/fishery	ED.
Security	11.9	9.5 %: Old age allowance	Info not sufficient
Fertilizer	18.7	0.1 % : KSS	ED. Government policy on subsidy and its role in supervising distribution. Incentives are believed to have worked. Efficacy of distribution needs probing.
Seeds	9.3		
Irrigation	1.1		
Pesticides	5.2		
Agricultural tools	5.6		
Fishing equipments	0.7	n/a	Transfers in large quantities in Sidr affected coastal south.
Veterinary services	0.5	n/a	
Fodder, animal feed	0.4	n/a	

Note: Relative standing is ED if relatively there is less effort given to deliver a service for which there is relatively larger demand. The opposite is the case under ES, which stands for excess supply.

It has been noted that food crisis is different from production or livelihood shocks arising from natural disasters. Sudden increases in food prices redistribute resources in the society, usually from net sellers to net buyers; and force household level adjustments that may have long term bearings on poverty. There are five broad areas where attention is called for. These are:

- When food prices increase and the source of such increase is external, there is very little that a nation can do from within. When opportunities to source additional supply from outside exist, there is good rationale for subsidized food distribution – be it through open market sales, or targeted food distribution. Even when national level availability cannot be changed due to unfriendly external environment, redistributive measure to reach out to very poor can be justified. During the last crisis, one would like to see austerity measure being simultaneously promoted to relieve pressure on aggregate national stock – but no such measure was taken.
- When a crisis originates from shortage of supply in the market, the best way to address it is through taking measures that lead to increases in the supply. For food grains in Bangladesh, the experience shows that policies, if implemented, can bear fruits within one crop season – between 4 to 6 months. However, the experience also revealed a major dilemma – choosing between high food prices and subsidized (lower than market) input prices to provide incentives to farmers who may then give the effort to increase supply. One could also mention of trade facilitation to smooth procurement from external sector, which was not however a relevant issue during the time of previous crisis. The idea of a common fund or a food bank has been tabled. However, when markets mitigate risks across spaces (countries), there is very little additional benefit from creating such a fund, especially when failures in markets arise due to some actors/countries (participating in international trade of foodgrain) are too keen on making windfall gains at the cost of others. There is however a need for early warning and actions on the part of the government to secure its foodgrain stocks.
- It is found that affected households resort to borrowing to meet current needs. While this is a perfectly rational response at the micro level, one needs to assess the macro implications of such responses. With unchanged aggregate supply of foodgrain, financial intermediations are likely to be inter-temporally tagged with redistribution of real resources within the society. Regrettably, this side of the story is very little studied in Bangladesh; and needs closer scrutiny. Presuming that the implications are negative, one would need to find ways to provide assistance that are not tied to inter-temporal resource transfers.
- Most empirical studies on household responses reveal that the burden of sudden declines in real income is borne by the members in terms of reduced attention to health care. While this allows a family to reduce/cut on expenses, the stock of healthy labor effectively declines with possible negative implication for future stream of income. The cut on health expenses is further aggravated by fixity in education expenses. Thus, two-prone programs need to be designed to assist affected population during future (sudden) declines in real income. First, there is a need to introduce flexibility in the regular health care system to extend assistance

- at reduced cost (to households) during times of crisis so that the quality of human resources is not adversely affected in the long term. Second, short-term measures need to be designed to reduce the cost of education during crisis so that disposable income of households can find alternative use. Designing and implementing policies on such matters require the information base to be put in place, and that may be the one of the steps towards preparing for a future crisis.
- Food crisis does not in itself call for employment support program, particularly in an economy with numerous foodgrain producers. However, general slowdowns in the economy called for attention in this sphere. Ideally, one would like to see such entitlements tagged to maintaining and/or building infrastructure that promote increases in agricultural production.
 - Most affected households meet increases in current expenses by borrowing; and extent of supports currently extended by provisioning relief via this route is inadequate. The government and government-sponsored agencies rightly recognized the potential and had acted in limited ways. There is a need to search for options without jeopardizing the normal credit operations of agencies working in the field.

Annex 1

Additional Statistical Annex

Table A.1: Percentage of households reporting change in the consumption

Item Name	Consumed in		Change in quantity*		Change in quality*	
	2006	2008	Less	More	Worse	Better
<i>fine rice</i>	20	12	61	11	43	12
<i>medium rice</i>	46	35	56	19	35	5
<i>coarse rice</i>	76	82	27	48	34	10
<i>atta</i>	29	23	76	10	19	16
<i>lentil</i>	81	68	74	9	37	11
<i>khesari</i>	21	21	54	29	12	9
<i>big fish</i>	79	63	90	2	39	11
<i>small fish</i>	98	98	45	36	27	12
<i>dried fish</i>	75	74	59	16	32	13
<i>liquid milk</i>	66	43	84	5	10	11
<i>powder milk</i>	7	2	53	41	29	18
<i>mango</i>	99	97	84	3	35	12
<i>jackfruit</i>	99	98	81	4	26	13
<i>banana</i>	98	96	76	5	34	10
<i>egg</i>	94	85	86	3	4	11
<i>chicken</i>	89	73	89	3	11	14
<i>meat</i>	72	44	93	2	15	12
<i>mutton</i>	11	5	84	6	56	13
<i>vegetables</i>	98	98	42	26	27	11

*In case of changes in quantity and quality, columns (less and more or worse or better) do not add up to 100 percent because those reported unchanged are not presented in this table.

Source: Estimated from ERG survey (2008)

Table A.2: Coping strategies reported by the households in ERG Survey 2009

COPING STRATEGIES	Number of responses	% of responses*	rank	Weighted* (column %)	Rank WP
Work longer hours	511	73.10	1	24.31	1
Borrow money	387	55.36	2	15.11	2
Reduce overall food consumption	321	45.92	3	9.66	3
Inactive HH members going to work	191	27.32	5	7.49	4
Shifting occupation	187	26.75	6	7.09	5
Producing more agro output	127	18.17	7	5.91	6
Consume low cost but less preferred food	223	31.90	4	5.80	7
Reduce rice consumption	115	16.45	8	3.71	8
Reduce medical helps/treatments	113	16.17	9	2.90	9
Sell livestock	70	10.01	11	2.88	10
sell assets(furniture, ornaments etc)/sell farmland	69	9.87	12	2.88	11
Spend cash savings	55	7.87	15	2.61	12
Shift children from school to work	76	10.87	10	2.53	13
Sending children under 14 to work(non school going children)	62	8.87	13	2.13	14
Withdrawing children from school	60	8.58	14	2.01	15
Reduce women food consumption	44	6.29	16	1.05	16
Do nothing/incapable of taking a strategy	36	5.15	17	0.76	17
Collect more food from nature	12	1.72	19	0.32	18
Diversify agriculture	16	2.29	18	0.32	19
Reduce child food consumption	9	1.29	20	0.28	20
Use assets in new business or in agriculture	6	0.86	22	0.10	21
Increase the use of technology in production	3	0.43	23	0.09	22
Reduce spending on agro inputs	2	0.29	24	0.06	23
Take assistance from others	9	1.29	21	0.00	24
Total number of households reported	699	699	NA	100	NA

*Each household reported a maximum of 4 strategies in sequence. The corresponding strategies were assigned with values sequentially 4, 3, 2 and 1. That is, the first strategy gets the highest weight then the second and so on.

Source: ERG survey 2009

Table A.3: Coping Strategies in different regions

coping strategies	Monga	Coastal	haor	CHT	Dhaka city	Chittagon g city	All
work longer hours	91.00	78.00	70.00	71.00	68.50	64.65	73.10
borrow money	64.00	70.00	68.00	45.00	46.00	48.48	55.36
reduce overall food consumption	48.00	36.00	33.00	64.00	46.50	47.47	45.92
consume low cost but less preferred food	9.00	38.00	21.00	35.00	39.00	42.42	31.90
inactive hh members going to work	36.00	21.00	19.00	9.00	41.50	23.23	27.32
shifting occupation	17.00	25.00	25.00	27.00	31.00	31.31	26.75
producing more agro output	30.00	26.00	27.00	35.00	3.50	2.02	18.17
reduce rice consumption	13.00	13.00	17.00	24.00	15.00	18.18	16.45
reduce medical helps	0.00	9.00	11.00	15.00	24.50	29.29	16.17
shift children from school to work	14.00	12.00	11.00	4.00	11.00	13.13	10.87
sell livestock	23.00	15.00	19.00	12.00	0.00	1.01	10.01
sell assets(furniture, ornaments etc)/sell farmland	14.00	7.00	21.00	5.00	8.00	6.06	9.87
sending children under 14 to work(non school going children)	4.00	4.00	3.00	0.00	18.50	14.14	8.87
withdrawing children from school	15.00	13.00	6.00	2.00	8.50	7.07	8.58
spend cash savings	17.00	4.00	3.00	1.00	12.00	6.06	7.87
reduce women food consumption	5.00	1.00	4.00	0.00	9.50	15.15	6.29
do nothing	0.00	7.00	8.00	0.00	5.00	11.11	5.15
diversify agriculture	0.00	0.00	0.00	16.00	0.00	0.00	2.29
collect more food from nature	0.00	0.00	3.00	7.00	1.00	0.00	1.72
reduce child food consumption	0.00	1.00	0.00	1.00	2.00	3.03	1.29
take assistance from others	0.00	2.00	2.00	3.00	0.50	1.01	1.29
use the assets in business or in agriculture	0.00	0.00	0.00	5.00	0.00	1.01	0.86
increase the use of technology	0.00	0.00	0.00	1.00	0.00	2.02	0.43
reduce spending on agro inputs	0.00	0.00	2.00	0.00	0.00	0.00	0.29
# of households	100	100	100	100	200	99	699

Source: ERG survey 2009

Table A.4: Weighted Coping Strategies in Different Regions

weighted coping strategies*	Monga	Coastal	Haor	Chittagong Hill Tracts	Dhaka city	Chittagong city	All
work longer hours	32.10	26.54	19.88	25.23	22.39	21.48	24.31
borrow money	12.00	20.59	25.05	12.56	10.56	14.70	15.11
reduce overall food consumption	7.70	6.86	8.59	13.59	10.01	10.89	9.66
inactive hh members going to work	8.50	4.71	3.73	2.16	12.33	8.43	7.49
shifting occupation	3.90	6.45	5.28	7.42	8.69	9.25	7.09
producing more agro output	9.80	7.89	7.97	13.18	1.11	0.41	5.91
consume low cost but less preferred food	1.10	6.97	4.76	3.81	7.98	8.02	5.80
reduce rice consumption	2.60	2.77	3.73	6.49	3.28	3.91	3.71
reduce medical helps	0.00	1.13	2.38	2.99	4.40	5.04	2.90
sell assets(furniture, ornaments etc)/sell farmland	3.80	1.95	5.38	1.75	2.73	1.85	2.88
sell livestock	6.20	4.30	5.59	4.02	0.00	0.10	2.88
spend cash savings	5.30	1.43	0.62	0.41	4.04	2.26	2.61
shift children from school to work	2.50	2.87	2.69	1.13	2.83	2.88	2.53
sending children under 14 to work(non school going children)	0.60	1.02	0.62	0.00	4.50	3.60	2.13
withdrawing children from school	3.30	3.07	0.93	0.51	2.07	2.06	2.01
reduce women food consumption	0.60	0.20	0.62	0.00	1.57	2.77	1.05
do nothing	0.00	1.13	1.14	0.00	0.76	1.54	0.76
collect more food from nature	0.00	0.00	0.62	1.13	0.25	0.00	0.32
diversify agriculture	0.00	0.00	0.00	2.27	0.00	0.00	0.32
reduce child food consumption	0.00	0.10	0.00	0.31	0.51	0.51	0.28
use the assets in business or in agriculture	0.00	0.00	0.00	0.62	0.00	0.10	0.10
increase the use of technology	0.00	0.00	0.00	0.41	0.00	0.21	0.09
reduce spending on agro inputs	0.00	0.00	0.41	0.00	0.00	0.00	0.06
take assistance from others	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	100	100	100	100	100	100	100

Note: All the percentages are weighted percentages described above.

Source: ERG survey 2009

Table A.5: Seasonal index for Retail and Wholesale Prices

Period	Index, Retail prices	Wholesale prices
January	.066	100.614
February	.283	102.736
March	.056	102.301
April	.606	101.198
May	-.402	97.488
June	-.499	97.630
July	-.004	99.859
August	.253	100.858
September	-.035	98.628
October	.032	99.977
November	-.253	99.307
December	-.103	99.403

Table A.6: Priority of Needs identified by Surveyed Households

Type of needs	1st priority	2nd priority	3rd priority
Cash	51.2	21.0	10.4
Food	15.6	20.1	14.5
Employment	6.9	11.6	11.6
Fertilizer	4.6	7.1	7.0
Health services	2.7	4.3	12.4
Credit	2.2	6.8	4.3
Seeds	1.8	4.5	3.0
Increased wage	1.5	4.9	5.1
Agricultural tools	0.8	1.8	3.0
Clothes, shoes	0.3	2.7	9.3
Irrigation	0.2	0.3	0.6
Fishing equipments	0.2	0.5	0.
Pesticides	0.1	1.2	3.9
Fodder, animal feed	0.0	0.2	0.2
Veterinary services	0.0	0.2	0.3
Security	2.1	3.7	6.1
Other assistance	9.6	9.2	7.6

Table A.7: Changes in Gender-specific Employment Situation

Description	2009			2006		
	Total	Male	Female	Total	Male	Female
Under-employment rate	28.7	27.5	32.5	24.5	10.9	68.3
Bangladesh Labor Force Participation Rate	59.3	87.2	31.5	58.5	86.8	29.2
Urban Labor Force Participation Rate	59.5	86.4	30.5	55.7	83.2	27.4
Rural Labor Force Participation Rate	59.2	87.9	30.2	59.4	88.0	29.8

Source: Employment Monitoring Survey 2009, BBS.

Annex 2

Summary of Various Data Sources

HIES 2005

This data is from the National Household Income and Expenditure Survey conducted by Bangladesh Bureau of Statistics in 2005. The total sample households of the survey were 10,080 covering almost 28.64 million of population out of 138.82 million of national population. Among the households 6400 were rural and 3680 were urban. Average National household size was 4.85 which is 4.89 in rural areas and 4.72 in urban areas. The sample households were randomly selected from 16 strata in a way to allow estimates within acceptable error limits at division and zone levels.

ERG Slum Survey 2008

This study was conducted to understand the pattern of immediate responses of urban poor after the commodity price increases in late 2007 and early 2008. The survey took place in May 2008 and included 285 households from six selected pockets/clusters of Dhaka city. A random sample of 40 to 50 households was selected from each slum/cluster. In addition, a sizeable number of respondents were from pavement dwellers. The sample is distributed among different occupations including garment workers, construction workers, rickshaw pullers, various mechanics, retailers, casual laborer, domestic workers, 3rd and 4th class service holders, beggars and many others. The sample households were also distributed among five different residence-types namely, people who live in rental flats, rental tin shades, rental mess, rental *chaprass* in slums and homeless people. Of all households, 77% bought grocery from the market to cook their food and 23% of the households either bought their food directly from the market or shared expenses managed by others (for example, people who live in mess).

The cross-sectional data compares household's income and income earning activities as well as food and non-food consumption pattern between January to March 2007 and January to March 2008. It also compares household's asset holdings and transactions between year 2006 and year 2007-08 as well as financial transactions between year 2007 and year 2008.

ERG Survey 2008 on Vulnerable Areas

The study was undertaken by the Economic Research Group with financial supports from the Save the Children UK in October-November 2008. The information on households had been collected from *Monga* areas in the North/North-West, *Haor*, Coastal, and Chittagong Hill Tracts, and several slums in Dhaka and Chittagong metropolitan areas. It had been commonly perceived, based on prior information, that there was a large concentration of extreme poor in all these areas.

A total of 700 households had been surveyed with special emphasis on the most vulnerable groups such as agricultural and non-agricultural day laborers, landless farmers in rural areas; and garment workers, and rickshaw pullers in urban areas. To capture the

changes in household consumption, employment and income, recalls of two years (2006-08) were used.

For each of the two metropolitan cities and the four upazila towns, the total population was perceived in terms of clusters of residence, and only a subset of these clusters known to have higher concentration of poor people had been identified. Subsequently, 2 clusters from this subset were randomly selected for each of the two metropolitan cities and four upazila towns. The final stage of sampling drew 50 households from each of the clusters in metropolitan cities and 30 households from each of the clusters in upazilla town by random sampling technique. In addition, 50 households, representing the floating population, was surveyed from several key spots in each of the two metropolitan cities.

For each of the two villages selected in an upazila, wealth ranking had been undertaken for all households through key informant approach. Subsequently, 20 households, from each village, were selected randomly with appropriate probability weights. Representation of vulnerable occupational groups such as day laborers, landless farmers, and marginal farmers was ensured in rural areas. As a result, the total sample size for this study became $700 = 300 (= 3 \times 50 \times 2) + 240 (= 2 \times 30 \times 4) + 160 (= 2 \times 20 \times 4)$ households.

MCSC Study of ERG

The objective of the study was to estimate the number of MFI clients graduating out of \$1.25 a day threshold from 1990 to 2008. A nation-wide survey had been undertaken from January to July 2009, covering 74 villages from 36 upazilas out of 4 greater divisions of Bangladesh. The sample was chosen through multistage weighted random sampling procedure. Probability weights were assigned to each upazilla, each union and then each village in accordance to their share of MFI borrowers. 50 sample households were randomly selected from each sample village who were all MFI borrowers.

Thus the survey included a sample of 3620 non-metropolitan households. In addition to that 241 households were surveyed from 6 slums of Dhaka and Chittagong Metropolitan areas.

ERG Slum Survey

On October, 2009 ERG took initiatives to fill few gaps with qualitative data by visiting slum areas at Banani, Dhaka. We targeted 2 slums where 80 HHs were living. From them we picked 10 HHs. Most of them originated from Mymensingh, Sherpur and Jamalpur. Very few came from other places. Females are mostly engaged as housemaids and males are occupied with different works such as rickshaw pullers, CNG drivers, vendors, petty business on foot paths, job of guards etc. Most of their children cannot go to school due to long distance.

Other Secondary data sources

DAM data: Data on weekly food prices was collected from Department of Agricultural marketing (DAM) which includes wholesale and retail prices of 84 food items collected

from several markets in Dhaka city. The series contain weekly data for 10 subsequent years starting from January 2000 till August 2009.

HFSNA 2009: A total of 10,378 households spread across the six divisions, selected through two –stage random sampling. 8089 are rural. November 2008 to January 2009.

BRAC Sample (Munshi 2009): A sub-sample of NSP-2006 was revisited during July-August, 2008. The sample was drawn separately for rural and urban populations. A total of 1500 households in 10 villages, of which 1163 households were successfully visited. One upazila with the lowest mean weight-for-height z-score (WHZ) was chosen from each division. There were 25 hh x 10 villages x 6 division = 1500 households.

The WB Survey in July 2008: The survey sample comprised of 2,000 households, including 1,200 rural and 800 urban households. The sample was designed to ensure that the data captured a wide spectrum of the Bangladeshi society. The rural survey was conducted in all six divisions in the country, and included 12 districts. The urban survey was fielded in six districts in four divisions of the country.

Annex 3

Summary of Selected Safety Net Programs

Ahmed et al (2007) finds that as income of households increase, there is a tendency for them to prefer cash over food transfers. Only the poorest households prefer resource transfers in the form of food. As price hikes tend to erode households real income, it may be safe to assume that the preference for food transfer would rise during the time of price hikes.

Different programs emerged in order to respond to different crises and their designs critically depended on the nature of the hazard faced. Ideally one would expect these to complement people's existing coping strategies. Overtime, numerous safety net programs were introduced in Bangladesh. Some of them were quite successful and some were discontinued due to failure. Some of the major food security programs are assessed below in terms of their achievements in fulfilling the needs of those affected by food price shocks.

100 Days Employment Generation Program was an outcome of soaring food price of 2007-08. It emerged as a social safety net to help the extreme as well as jobless poor to cushion poverty. But the program was highly ambitious with its huge target group and diversified goals that ultimately could not make a success. The broad objectives of this program were to create employment for the poorest unemployed people, to assure their food security and finally to eradicate poverty. According to the evaluation report (by BRAC), 'too many issues were intended to be addressed with a single programme'. But ultimately it shows improvement in the economic condition of three-fourth of the people; and 77% reported improvement in quality and quantity of food consumption that fulfilled another objective of the program (that is, food security of the beneficiaries beside their employment).

Due to vague program design, weak preparation, improper management and corruption this program was not appreciated by many. But the survey done as part of the evaluation report depicts that most of the beneficiaries and also the non-participants wanted this program to continue. Several dimensions of the program are worth noting:

Objective: Coping through Y enhancing activities. Few beneficiaries reported that it also helped to increase investment in productive and non-productive assets.

Areas of intervention: Labor market. In particular, women seemed to participate in the program quite widely - 28% of the beneficiaries were women without any pro-women discrimination in administrative selection.

Instrument of intervention: Contributory, otherwise non-conditional

Government has reportedly taken initiatives to start the program once again with a different name. It is expected that the new program will be more effective this time. There are however apprehensions that allocations and choice of beneficiaries may be influenced by political patronage.

VGD has one of the highest coverage in Bangladesh. It emerged as a food aid-supported development program targeted at very poor women in the mid-1980s, after a brief

incarnation as a relief program, starting in 1975. It is a national program, reportedly reaching some 500,000 women per year. Beneficiaries, selected by local government representatives, participate in an 18-month program involving a monthly wheat ration and training, savings and income-generating inputs.

The IFPRI-GOB Food Leakage Study shows that VGD leakage has been to a maximum of 8.01%. If such leakage could be reduced, it is likely to be successful as a food-based intervention. Literature review shows that economic condition of beneficiaries has often improved and thus they do not seek normal relief during times of emergency.

Objective: Prevention and Mitigation. It encourages saving and using it on income generating inputs.

Areas of intervention: Health sector by providing wheat/atta to add micronutrient value and Labor market by providing training to develop skill.

Instrument of intervention: Conditional but non-contributory

Another admired program is **VGF**, which is running since 1970s. It is an emergency or seasonal relief programme. Through this programme seasonal poverty is addressed. It helps the poor to cope up in disasters. Usually it covers many beneficiaries. The beneficiary HH received a monthly ration of 31.25 kg of wheat for a 2-year period. However, only direct food transfer was not enough to put them on accumulative trajectory. Therefore, the government introduced changes in the existing design. According to officials, at least 5.2 million out of the listed VGF card holders will no more get food free of cost, but they will get the opportunity to buy rice at a minimal price of Tk. 5 or Tk. 6 per Kg. On the other hand, free food will be available for the remaining 25 per cent or 1.76 million of the listed beneficiaries, especially for the ultra poor, distressed women, poverty-stricken people of the society. According to the govt. plan one of the key objectives of bringing about such a change in the VGF programme is to discourage the existing begging menace. In this way it will mitigate the impact of disasters on both food and non-food consumption of the poor.

Objective: Coping. Actually it lessens the shock and thus prevents the poor from reducing their food as well as non-food consumption.

Area of intervention: Food security

Instrument of intervention: Non-conditional and non-contributory

FFW, another large safety net programme focuses on rural infrastructure and employment for the vulnerable poor. Its inception year is 1975 and current beneficiaries are around 1 million. It concentrates around the relief of seasonal unemployment. Through this program Govt. provides wage payments to workers in labor-intensive public works.

Objective: Mitigation

Area of intervention: Food security and Labor Market through employment generation of day laborer or temporary worker.

Instrument of intervention: Contributory otherwise non-conditional

During the FGDs the participants were of the view that the BDR operation was helpful especially to the poor. However, they felt that the scale of the operation should have been greater to benefit more people both in Dhaka and other areas out side the national capital. It was also noted that the BDR outlets became less attractive even to the poor when they started charging reigning market prices for products especially rice towards the end of the year 2007 and the beginning of 2008. Some participants in the FGDs especially in Sunamganj in Sylhet noted that the urban-centric nature of the government sponsored OMS (Open Market Sale) did not allow the poor in the rural areas to benefit of these operations many of whom went to the urban locations where such operations were carried out.

They were particularly appreciative of the timely availability of food as part of these programs at times of distress.

Annex 4

Review of Price Movement

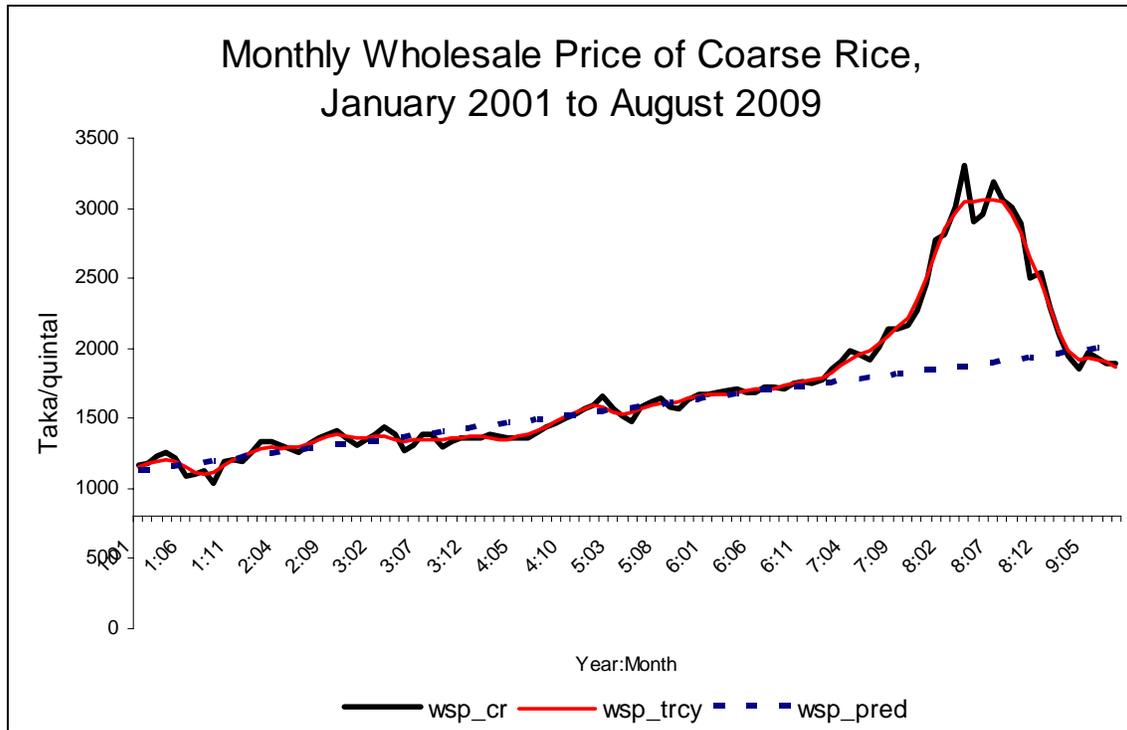
A.4.1 Reconstructing the impact source

The key question posed in this section is whether there was really a food price surge in 2007-08 in Bangladesh. By coining the term ‘surge’ we mean a significantly greater increase in prices than historical norms. Time series data on food prices are available from several sources, each having their own limitations. The weekly market prices of rice and paddy in 70+ locations across the country is long recorded by the Department of Agriculture Marketing (DAM), but those capture only producer-level prices. Consumer-level prices are compiled by the Bangladesh Bureau of Statistics (BBS) for constructing inflation indices, but researchers had cast doubts when it came to commodity-specific prices. DAM had engaged in compiling wholesale and retail level food prices (of a selected number of items) for several urban markets on a weekly basis, including five in Dhaka city, since 2000-01. The present study applies the traditional statistical techniques to assess if there had been major ‘irregularities’ (that includes cyclical component) in price movements during 2001-09 period.³⁷

Decomposition of the time series applied the SPSS tools to find the seasonal index (12 periods, one for each month) under the assumption of additive relation. With the error term removed, the ‘trend-cyclical’ component was separated, which also included the commonly perceived ‘irregular’ components. Upon trying several alternative trend estimations, a simple linear model was estimated for the period leading up to December 2007; and the estimated parameter values were used for predicting the trend for the subsequent months (January 2007 to August 2009). Actual price series (*_cr*), trend-cyclical series (*_trey*) and the linear fit or predicted prices (*_pred*) are summarized in Figures A.4.1 and A.4.2, separately for wholesale and retail prices of coarse rice in Dhaka city. The divergence of the trend-cyclical path from the trend path (during January 2007 to early 2009) does not match with any past experience to claim the attribute of being cyclical. In nominal terms, wholesale price of coarse rice in Dhaka city increased by 83 % during December 2006 and July 2008; and more sharply during June 2007 to July 2008. The retail prices followed the wholesale prices and exhibit the same pattern.

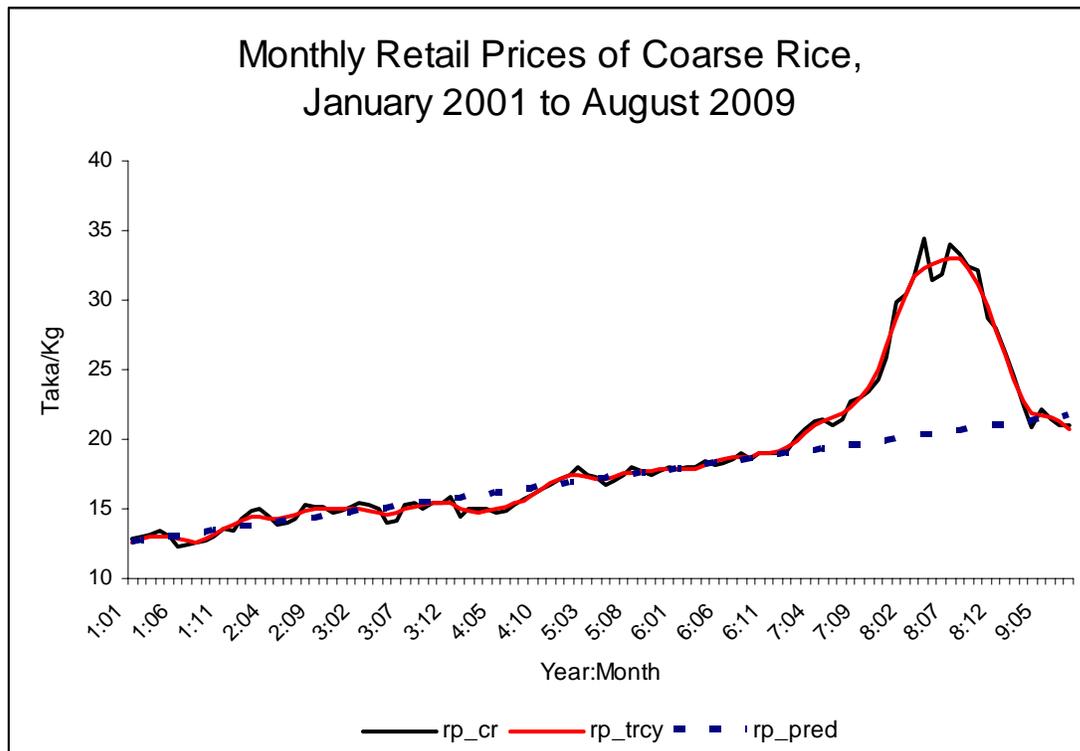
³⁷ An earlier study under ERG supervision (by Galib Ahsan and others) had compiled data from 2004 till 2008. Additional effort was given to procure rest of the data and the monthly series compiled from weekly data during January 2001 till August 2009 do not yet have information on September 2002 and for four months in 2004. The missing cases were filled in by linear interpolation.

Figure A.4.1



Note: cr = actual price series, trcy = trend-cyclical series, pred = predicted series.

Figure A.4.2



Share of food expenditure in total expenditure in Bangladesh is more than 60 %; one estimate suggests it to be 63.7 % for moderate poor, and 67.0 % for extreme poor. Of the total household expenditure on food, cereals (most of which is rice) account for almost 70%. While rice is the staple food in Bangladesh and in conjunction with wheat accounts for 80 % of dietary energy supply in Bangladesh; food includes other items as well. As shown in Table A.4.1, cooking oil (mostly soybean oil) accounts for more than 6% of dietary energy supply (DES), while potato, pulses (mostly, lentil), vegetables and animal food are also important in the diet of average Bangladeshi household. Thus, one would like to ensure that surge in food prices was commonly experienced across all important food groups – and not simply confined to rice prices.

Table A.4.1: Sources of Daily Energy Supply by Food Items, 2005

Food Items	Current intake in (gm/capita/day)	% of Daily Energy Supply (DES)
Cereals	467	79.2
- Rice	(448)	(76.4)
- Wheat	(19)	(2.8)
Pulses	14	2.1
Animal Foods	95	3.8
Fruits	33	1.4
Vegetables	157	3.0
Potato	63	2.4
Cooking oil	16	6.3
Sugar/Gur	8	1.4
Spices	18	0.4
Total (Gram)	930	-
Total energy, kcal	2238	100.0

Source: BBS HIES, 2005.

Table A.4.2 below summarizes the correlation coefficients of various ‘de-seasonalized’ wholesale prices. One may note that other than the items whose domestic consumption largely relies on imports (such as, soybean oil and lentil), prices of most other non-cereal items did not move in line with cereal prices during the period of price surge. This is particularly true for potato, onion and brinjal; which may have given some relief to the urban consumers. The negative relation between rice and potato prices may have arisen partly because of excess emphasis on potato production as a government strategy to counter general shortfall in food supply. In all other cases, which account for almost 90 % of DES, there was strong co-movement amongst prices. Thus, the observation of price surge based on the movement of prices of coarse rice hold true for those items as well.

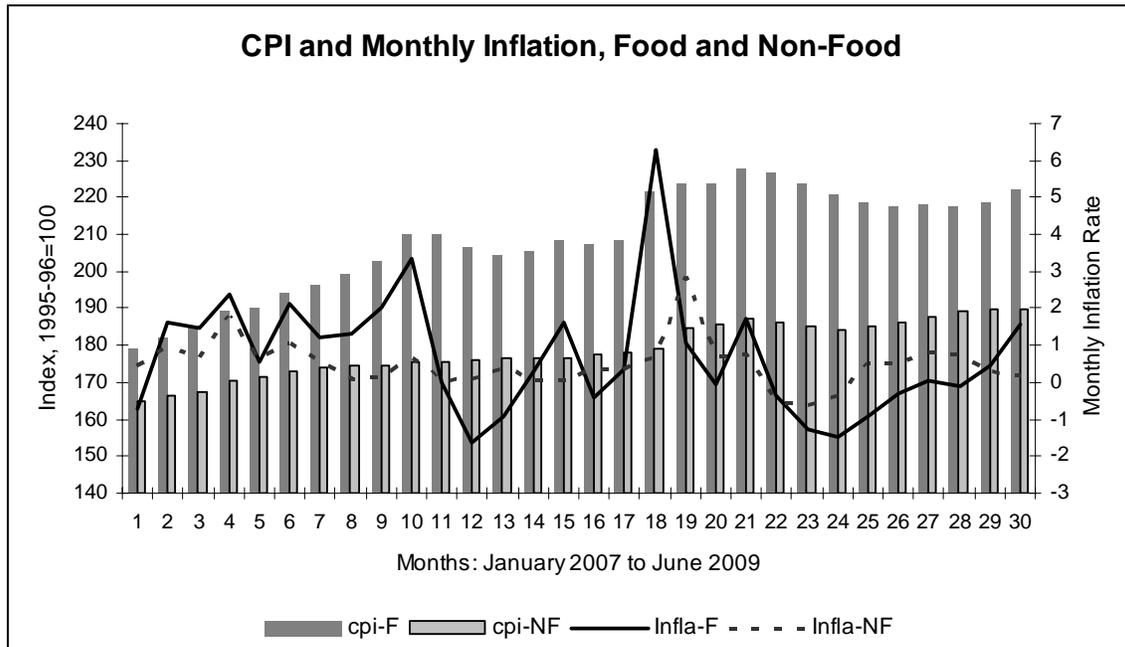
Table A.4.2: Bi-variate Correlation Coefficient, Trend-cyclical series of wholesale prices for selected food items
(Upper right for January 2007 to July 2008 and lower left for 2001-2009)

	rice fine	Rice medium	rice coarse	atta	lentil ordinary	soya oil	onion domestic	onion imported	egg farm	potato	brinjal	rice aromatic	katol fish	ruhi fish-carp	sugar	lal shak	chicken domestic
Rice fine	1.00	1.00	1.00	0.91	0.94	0.99	-0.06	-0.41	0.65	-0.53	-0.05	0.95	0.61	0.85	0.53	0.24	0.66
Rice med	0.95	1.00	1.00	0.91	0.94	0.99	-0.07	-0.42	0.65	-0.55	-0.05	0.94	0.61	0.86	0.54	0.23	0.66
Rice coarse	0.93	0.98	1.00	0.92	0.95	1.00	-0.04	-0.39	0.65	-0.52	-0.02	0.95	0.64	0.87	0.51	0.25	0.67
Atta	0.81	0.91	0.95	1.00	0.78	0.91	0.24	-0.10	0.41	-0.29	0.08	0.92	0.56	0.68	0.31	0.43	0.45
Lentil ordinary	0.95	0.89	0.86	0.75	1.00	0.96	-0.06	-0.38	0.85	-0.49	0.13	0.92	0.73	0.91	0.50	0.27	0.86
soybean oil	0.92	0.96	0.97	0.91	0.89	1.00	0.01	-0.34	0.70	-0.47	0.05	0.97	0.68	0.87	0.47	0.29	0.72
Onion domestic	0.55	0.45	0.43	0.42	0.61	0.48	1.00	0.92	-0.02	0.77	0.76	0.22	0.21	-0.27	-0.66	0.78	0.08
Onion imported	0.41	0.34	0.36	0.43	0.43	0.40	0.88	1.00	-0.25	0.87	0.73	-0.15	-0.01	-0.53	-0.77	0.68	-0.18
Egg, farm	0.83	0.72	0.66	0.50	0.92	0.72	0.61	0.34	1.00	-0.34	0.34	0.68	0.67	0.74	0.37	0.26	0.97
Potato	0.63	0.60	0.56	0.54	0.76	0.61	0.60	0.48	0.72	1.00	0.70	-0.26	0.04	-0.53	-0.95	0.47	-0.18
Brinjal	0.72	0.68	0.67	0.61	0.81	0.69	0.75	0.63	0.78	0.81	1.00	0.23	0.61	0.08	-0.65	0.81	0.46
Rice aromatic	0.90	0.92	0.94	0.86	0.90	0.96	0.53	0.42	0.76	0.57	0.73	1.00	0.72	0.79	0.26	0.47	0.74
Katol fish	0.87	0.85	0.81	0.73	0.93	0.85	0.58	0.41	0.86	0.81	0.83	0.82	1.00	0.82	-0.10	0.55	0.80
Rui fish, carp	0.77	0.77	0.69	0.57	0.84	0.76	0.44	0.21	0.83	0.66	0.67	0.75	0.91	1.00	0.47	0.15	0.78
Sugar	0.25	0.22	0.15	0.10	0.23	0.02	0.12	-0.04	0.28	0.25	0.24	0.04	0.26	0.16	1.00	-0.45	0.21
Lal shak	0.80	0.76	0.74	0.68	0.81	0.72	0.73	0.63	0.75	0.66	0.90	0.75	0.79	0.61	0.33	1.00	0.34
Chicken domestic	0.91	0.87	0.85	0.74	0.97	0.88	0.57	0.41	0.91	0.76	0.85	0.89	0.93	0.84	0.24	0.83	1.00

Note: The correlation coefficients are obtained for de-seasonalized (month-wise) trend-cyclical series.

It is important to note that prices of non-food items had also increased when food prices increased, but less than proportionately. Movements of consumer price indices (CPI), shown with bars in Figure A.4.3, reveal this quite clearly. The two lines represent the month-to-month (consecutive months) rate of change in CPIs.

Figure A.4.3



Source: Compiled from BBS/Bangladesh Bank data.

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