

PROFESSOR AMARTYA SEN AND THE 1974 BANGLADESH FAMINE

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Abstract

This paper investigates (within Professor Amartya Sen's entitlement approach) some aspects of economic events that led to the 1974 Bangladesh famine. It argues that this famine was not caused by a sudden decline in the aggregate availability of food by natural disasters; rather, the genesis of it can be traced to expansionary economic policies that the government of Bangladesh undertook immediately after the independence of the country. In fact the process of famine started in 1972 when inflation took off in an otherwise price stable country. By the time inflation exploded in 1974 a large section of the rural people belonging to the lower middle class had already slid downward into the poverty trap. Their exchange entitlement failed when rural employment opportunities decreased due to floods and food prices rose sharply due to precautionary and speculative attacks on food markets. The paper concludes by drawing some policy implications within a broader political economy perspective.

I. INTRODUCTION

In his 1981 book *Poverty and Famines*, Noble Laureate in Economic Science Amartya Sen has provided an economic analysis of four contemporary famines within the paradigm of what he calls the "entitlement approach". This is not an alternative but an encompassing framework in which the conventional explanation for famines in terms of the food availability decline (FAD) (caused by, say, natural disasters or wars) is nested (Ravallion, 1997). Within the entitlement approach, famines can occur when there is an entitlement failure for certain groups of people in a society with and without a sharp contraction in the aggregate availability of food. Sen (1981:162) thus puts the issue in a broader context, suggesting that "[t]he entitlement approach views famines as economic disasters, not as just food crises". He then argues convincingly how an entitlement failure, rather than a decline in the aggregate availability of food, caused the Bangladesh famine:

The food availability approach offers very little in the way of

explanation of the Bangladesh famine of 1974. The total output, as well as availability figures for Bangladesh as a whole, points precisely in the opposite direction, as do the inter-district figures of production as well as availability. Whatever the Bangladesh famine of 1974 might have been, it wasn't a FAD famine [Sen, 1981:141].

Sen was correct in his diagnosis of the immediate cause of the famine. He did not, however, examine in detail the economic events that led to the entitlement failure of the rural poor, including landless wage labourers, artisans, and transport workers. In particular, he did not investigate the sources of high inflation and inflationary expectations during the early years of independence and link them with the rise in the relative price of food during or prior to the famine. An investigation of these economic events is crucial in determining conditions that might have given rise to the

entitlement failure of the rural poor.

This paper is, however, not a critique of Sen's study. It is devoted to an investigation (within Sen's entitlement approach) of economic events that led to the famine. The main appeal of Sen's approach is that it provides an explanation of why the famine occurred even though there was no "real scarcity of food" in the Smithian sense. Chadha and Teja (1989) have adapted Sen's approach to the Bangladesh famine within a macroeconomic framework. According to them, the genesis of this famine can be traced to expansionary policies that the government of Bangladesh undertook immediately after the independence of the country. Their macroeconomic model has at least four sub-models, namely: (1) a monetarist model of inflation; (2) an hyperinflationary model of money demand (Cagan, 1956); (3) a portfolio shift model of the relative price of food under financial repression; and (4) an efficiency wage model for farm workers. These sub-models (or their variants) constitute the analytical basis of the present paper.

II. SOURCES OF INFLATION, 1972-1975

Although the Bangladesh famine occurred during the months of September to November in 1974, the process of famine started in 1972 when inflation took off in an otherwise price stable country. Bangladesh did not have social security provisions for the poor and the nominal wage rate adjusted only partly to the rise in the price level (Ravallion, 1987). Thus the incidence of poverty increased with the rise in inflation. By the time inflation exploded in 1974 a large section of the rural people, especially the lower middle class, had already slid downward into the poverty trap. Their exchange entitlement failed when rural employment opportunities decreased drastically due to floods and food prices rose sharply due to precautionary and speculative attacks to food markets. Therefore an investigation of the causes of famine should begin with the identification of factors that might have caused high inflation during the period 1972 to 1975.

(a) Inflation: A Monetary Phenomenon?

I begin with the hypothesis that excess money supply was the primary cause of inflation in Bangladesh during the period 1972 to 1975. The excess money supply was created from both the supply and demand sides of the money market. In other words, the growth rate of the nominal money supply was greater than the growth rate of real income, multiplied by the income elasticity of demand for real balances.¹ There were three main sources of the monetary expansion during the period 1972 to 1974, namely: (1) the monetisation of budget deficits; (2) credits to loss-making nationalised industries; and (3) the build up of foreign exchange reserves from a negligible level (Table 1). On the demand side of the money market, there were three types of shocks, namely: (1) the war of destruction and the dislocation of productive resources; (2) floods and droughts; and (3) a sharp rise in the OPEC oil prices that individually and jointly slowed down the recovery of the economy and hence the growth of money demand. Once inflation was ignited by an excess money supply, inflationary expectations were built up when the government failed to introduce effective stabilisation measures. High inflationary expectations lowered money demand sharply and generated an explosive inflationary situation during or prior to the famine.

(b) Early Studies and Their Findings

There have been a number of studies on Bangladesh's inflation for the early 1970s. They are Ahsan (1974), Alamgir (1980), Bose (1973), Rahim (1973) and Siddique (1975).

Alamgir's widely-quoted study on the Bangladesh famine provides a monetary explanation for the inflationary process. The other studies by Ahsan (1974), Bose (1973), Rahim (1973) and Siddique (1975) have also emphasised the monetary roots of inflation in a war-ravaged economy. The studies by Alamgir (1980), Bose (1973) and Siddique (1975) had an academic focus and were published in academic outlets. However the articles of Ahsan (1974) and Rahim (1973), who were then respectively the Research Director and the

TABLE 1 SOURCES OF EXPANSION OF THE NARROW MONEY SUPPLY, 1971/72-1973/74^a

	17 December 1971 to 30 June 1972	30 June 1972 to 29 June 1973	29 June 1973 to 28 June 1974
Expansion of the Narrow Money Supply ^b	+982 (100.0)	+2103 (100.0)	+1205 (100.0)
A. Net Domestic Credit	-340 (34.6)	+727 (34.6)	+513 (42.6)
(i) Private Sector	-466 (-47.5)	-190 (9.0)	+501 (41.6)
(ii) Nationalised Sector	+675 (68.7)	+1713 (81.5)	+1078 (89.5)
(iii) Change in Time Deposits	-549 (55.9)	-795 (37.8)	-1066 (88.5)
B. Government Fiscal Operations	+839 (85.4)	+1316 (62.6)	+1439 (119.4)
C. International Transactions	+821 (83.6)	-532 (25.3)	-1136 (94.3)
D. Residual Items	-338 (34.4)	+592 (28.2)	+390 (32.4)
Total (A+B+C+D)	+982 (100.0)	+2103 (100.0)	+1205 (100.0)

NOTES:

a The figures for monetary expansion (and its various components) are in millions of taka. They are compiled by the author based on Siddique (1975: Tables VII, VIII and IX).

b + = expansion; - = contraction.

c The figures in parentheses are the percentage changes in the expansion of the narrow money supply.

SOURCE: Selected Economic Indicators, Bangladesh Bank.

Economic Adviser of the Bangladesh Bank, were published in the in-house publication of the Bangladesh Bank: the *Bangladesh Bank Bulletin*. Notwithstanding the fact that the latter authors published articles within their personal capacity, their opinions were significant for at least two reasons. First, as central bank high officials, they had access to inside information on monetary developments within the economy.

Second, having become concerned about the impact of excessive monetary expansion on inflation, they took "risky" personal decisions by expressing their views publicly. It is to be noted that none of the authors cited above has a die-hard monetarist orientation; yet, they pointed out the monetary roots of inflation. They were not alone. Many government officials, academics and journalists, such as Lifschultz (1974a), were aware of what was going on.

In essence, all the early studies reveal that the government and the general public were aware of the monetary roots of inflation. It would be apparent in later discussion that this public

information played a crucial role in generating high inflationary expectations. Instead of making efforts to stabilise the economy by dampening inflationary expectations, the government popularized the "myth" that the anti-state elements (for example, smugglers and hoarders of foodgrains) were behind the scarcities of essential goods. Even though they were major players in food markets by the time famine occurred, there were no economic explanations from the government for why smuggling and hoarding of foodgrains took place in the first place. While this question will be investigated later, the rest of this section provides some information on how the government's monetary and exchange rate mismanagement sowed the seeds of high inflation.

(c) Monetary Developments: Too Much Money Chasing Too Few Goods?

As indicated earlier, Bangladesh was a relatively price stable country during the 1960s with an inflation rate of less than 5 per cent per annum (Hossain and Rashid, 1996). Inflation

jumped during the second half of 1971 to about 20 per cent for two main reasons. First, there was a disruption of economic activity during the Independence War. Second, floods lowered food crop production by about 15 per cent. These supply shocks were, however, associated with a contraction of the money supply by about 20 per cent.² This acted as a circuit breaker of inflation and inflationary expectations, especially when the general public showed no signs of panic and remained calm despite the war situation. Bose (1972:303) suggests that the abnormal situation prevailing during the war prevented traders and large farmers from "indulging in" speculation and hoarding and "thereby accentuating grain shortage in the market and pushing up prices". All these factors prevented inflation from going out of control.

A sudden explosive growth of the money supply immediately after independence represented the abandonment of the monetary conservatism of the Pakistani era. The official monetary statistics in Table 2 suggest that the

narrow money supply increased by 71 per cent during the calendar year 1972. For the next two years, the narrow money supply increased by 18 per cent and 16 per cent respectively. Besides the fact that these money supply growth rates by themselves were high in a war-ravaged economy, there were large quantities of counterfeit as well as both Pakistani and Indian currencies in circulation that sowed the seeds of high inflation. Here follows an elaboration of these phenomena.

Recall that Bangladesh became independent on 16 December 1971. To begin, the country did not have its own printed currency notes (taka) when a new government was formed in December 1971. The government allowed the use of inherited Pakistani currency notes as a legal tender (as a temporary measure), but with a token alteration. That is, those currency notes that were transacted through banks and other financial institutions were stamped with an official seal, indicating that they represented the taka. In January 1972 the government undertook another major monetary decision on

TABLE 2 MONEY SUPPLY GROWTH AND INFLATION, BANGLADESH, 1971-1975

	Narrow Money Supply (% Change)	Broad Money Supply (% Change)	Consumer Price Index (% Change)
1971			
June-December	-19.44	-12.87	17.69
1972			
January-June	21.91	25.69	17.53
July-December	31.83	26.24	25.93
January-December	70.54	67.91	51.79
1973			
January-June	1.64	4.17	13.71
July-December	14.47	12.12	12.43
January-December	18.06	21.36	33.42
1974			
January-June	0.82	3.58	21.67
July-December	15.54	13.49	36.13
January-December	15.74	18.46	72.40
1975			
January-June	-9.42	-2.72	-10.64
July-December	23.80	17.42	-9.33
January-December	4.07	8.78	-17.97

NOTES AND SOURCES:

+ Percentage change figures for the monetary aggregates are the author's calculation based on the Bangladesh Bank Bulletin (several issues) and the Economic Indicators of Bangladesh (several issues).

++ Data for the consumer price index for middle class government employees in Dhaka are the author's compilation based on a number of publications, namely the Monthly Statistical Bulletin of Bangladesh March 1972 (June 1971 to December 1971), IFS Supplement on Price Statistics 1986 (January to May 1972), the Bangladesh Bank Bulletin (several issues) and the Economic Indicators of Bangladesh (several issues) (for the remaining period). The base years of the index in different publications have been changed to derive the series with a common

the exchange rate front. It fixed the exchange rate of the taka with the British pound sterling after devaluing the taka by about 50 per cent. These currency and exchange rate arrangements solved initial problems relating to financial transactions (both domestic and international). Some new problems were, however, created when the exchange rate of the taka with the Indian rupee was set at parity and the government allowed the use of India's currency notes for transactions within Bangladesh as a "quasi-legal" tender.

Note that after the surrender of the Pakistani military on 16 December 1971, Bangladesh remained under the control of the Indian occupation forces until March/April 1972. During this period the Indian advisers played a major role in administering the country, including making decisions on economic and monetary affairs. Whoever might have been responsible for making economic decisions, many of them, especially those related to money and exchange rate arrangements, were controversial. For example, it is not known why the government allowed the use of the Indian currency notes for transactions within Bangladesh, especially when the Pakistani currency notes (representing the taka) were already in circulation. Without fully appreciating the implications of exchange rate arrangements with India, the government also set the exchange rate of the taka with the Indian rupee at parity. Furthermore, for unknown reasons, the government arranged the printing of the taka notes in India. The following discussion will show how these decisions went against the economic interests of Bangladesh.

Table 3 shows that prior to Bangladesh's independence in December 1971, the exchange rate of Pakistan's rupee (per US dollar) was 4.792, while the exchange rate of India's rupees (per US dollar) was 7.509. This meant that the establishment of parity between the taka and the Indian rupee effectively raised the value of the Indian rupee vis-à-vis that of the Pakistani rupee (representing the taka) by about 54 per cent. This created an immediate problem for Bangladesh. Recall that the Pakistani rupee was historically overvalued. So it might appear that the government took a sensible decision to devalue the taka with the pound sterling to the

extent necessary to ensure a parity with the Indian rupee as a benchmark. But when this decision was undertaken along with an extraordinary privilege for India that allowed this country to use its own currency notes for transactions within Bangladesh, there was an instant, albeit unexpected, windfall for India's residents for the following reason. Note that the devaluation of the taka with the pound sterling did not immediately raise the domestic price level proportionately. For example, while the rate of devaluation of the taka with the pound sterling was about 54 per cent, the consumer price index increased by 18 per cent during the first six months of 1972. The result was that the purchasing power of India's rupee over Bangladesh's tradable products (domestic and imported) raised substantially during the early months of independence. India's residents took advantage of this unexpected monetary development in their favour, especially when they were able to use their own currency notes for the purchase of goods inside Bangladesh. In popular parlance, this meant the procession of truckloads of Bangladesh's products for India, leaving a huge quantity of India's currency notes in the hands of the people of Bangladesh.³

The newspaper reports at that time showed why this was not an insignificant matter. The long border between Bangladesh and India was practically open during the early months of independence. As Bangladesh itself was under the occupation of the Indian military, there were no practical difficulties in the outflow of goods from Bangladesh to India. It was widely reported that the Indian military itself engaged in the purchase of huge quantities of both consumer and capital goods from Bangladesh using India's currency notes and then transferred those goods to India. The Indian military might have another advantage. During and in the aftermath of the war a large quantity of the Pakistani currency notes fell in the hands of the Indian military (after the Pakistani military and its collaborators surrendered to the Indian military.) Instead of returning those currency notes to the government of Bangladesh, the Indian military might have used them as war booty and purchased goods from Bangladesh (Ahmed, 1984; Barua, 1978; Maniruzzaman, 1980; Wright, 1988).

TABLE 3 EXCHANGE RATES OF THE CURRENCIES OF BANGLADESH, INDIA AND PAKISTAN (PER US DOLLAR)*

Month	Bangladesh		India			Pakistan		
	1972	1973	1971	1972	1973	1971	1972	1973
January	7.375	8.051	7.539	7.375	8.051	4.781	4.793	11.031
February	7.284	7.819	7.505	7.284	7.819	4.754	4.793	9.900
March	7.237	7.658	7.505	7.237	7.658	4.752	4.793	9.900
April	7.267	7.639	7.499	7.267	7.639	4.754	4.793	9.900
May	7.262	7.494	7.499	7.262	7.494	4.752	7.912	9.900
June	7.363	7.363	7.502	7.363	7.363	4.751	11.031	9.900
July	7.764	7.462	7.502	7.764	7.462	4.752	11.031	9.900
August	7.742	7.658	7.547	7.742	7.658	4.731	11.031	9.900
September	7.740	7.835	7.576	7.771	7.835	4.793	11.031	9.900
October	7.916	7.813	7.559	7.916	7.812	4.793	11.031	9.900
November	8.064	7.936	7.559	8.065	7.937	4.793	11.031	9.900
December	8.089	8.179	7.509	8.089	8.179	4.793	11.031	9.900

NOTE:

+ The exchange rate figures are period averages.

SOURCE: IMF, IFS Supplement on Exchange Rates No.9, 1985.

Bangladesh experienced two additional monetary problems. First, the circulation of huge quantities of counterfeit takas, possibly originated in India. (The low quality currency notes that were printed in India were, in particular, targeted by counterfeiters.) Second, there was a smuggling of Pakistani currency notes into Bangladesh from Pakistan itself. Following the massive devaluation of the Pakistani rupee in April-May 1972 to the extent of about 130 per cent against the US dollar, there was a mismatch of cross rates for this currency. For example, in June 1972 the exchange rate of the Pakistani rupee (per US dollar) was Rs 11.031 in Pakistan, while the exchange rate of the same currency in Bangladesh (that represented the taka) was Rs/Tk 7.363 per US dollar. As the difference between the Pakistani currency notes in circulation in both Pakistan and Bangladesh was a "token rubber stamp seal", the smuggling of the Pakistani currency notes to Bangladesh became highly profitable. Third, the governments of Pakistan and Bangladesh did not coordinate their decisions to demonetise the 50-rupee Pakistani currency note after Bangladesh became independence. This led to smuggling of this currency note from Pakistan into Bangladesh when the date of demonetisation of this note in Bangladesh lagged by 10 days of a similar decision taken in Pakistan. Wright (1988:144-145) puts together all such monetary policy problems that affected the Bangladesh economy:

In May 1973, there was a currency crisis in Bangladesh, caused by the printing of massive amounts of counterfeit money. This seriously damaged relations between India and Bangladesh because the official notes which Bangladesh was using at the time were printed in India, and India also seemed to be the source of forged taka.... There were other causes for the currency crisis. During the last days of the 1971 fighting, a large amount of Pakistani currency was channelled into India either by those who had looted banks and other places where currency was available, or through refugees, politicians and businessmen. By this means, smuggled Pakistani (and, later, Bangladeshi) currency came into the hands of Indians, who converted it to Indian currency. There were indeed "some dishonest Indians" but there was also some mishandling of currency problems by the Bangladesh government, which was inexperienced in such matters. For example, Pakistan demonetised its fifty-rupee note three months after the

1971 war, but Bangladesh did not coordinate its demonetisation with Pakistan and left it until ten days later. In the intervening period, large amounts of Pakistani currency were smuggled into Bangladesh and huge profits were made by exchanging it for legal tender before the deadline expired. The loser was the Bangladesh economy, and the profits were shared amongst a number of Bangladeshis, Indians and Pakistanis who were able to exploit the Bangladesh government's inexperience in monetary policy

The above discussion on monetary issues establishes the point that in a war-ravaged economy, the circulation of money (official, foreign and counterfeit) was excessive during the first year of independence. It has been explained in Hossain (1999) that such monetary expansion was largely exogenous. The excessive money supply created the classic symptom of high or hyperinflation that: "too much money chasing too few goods". Once inflation took-off in 1972 and then was sustained in 1973, inflationary expectations were built up as the people lost confidence in the ability of the government to stabilise the economy. High inflationary expectations lowered money demand sharply and created an

explosive inflationary situation by the time the famine occurred in 1974. This explains why, although the money supply growth rate decelerated during the years of 1973 and 1974, the velocity of money increased rapidly and that fuelled the inflationary fire. Siddique (1975), in a statistical study, showed that inflationary expectations caused the sharp rise in the velocity of money from the mid-1973.⁴

(d) Supply Shocks

There were a series of domestic and external supply shocks that affected the Bangladesh economy during the period 1971 to 1974. A contentious issue is whether these shocks were the primary source of inflation during the above period. Note that this is part of an old debate on the issue whether there exists a stable relationship between supply shocks and inflation (Hossain, 1989). As Bangladesh remains predominantly an agricultural country and its agriculture faces frequent adverse supply shocks, one's natural inclination is to link such shocks with inflation. This is not necessarily always correct. Given the importance of this issue in the present context, it will be investigated here on a case-by-case basis from an historical perspective.

Floods and droughts are part of Bangladesh's agriculture. Adverse agricultural supply shocks generally lower agricultural production and raise the relative price of agricultural products, albeit temporarily. Subsequent good harvests within a year or so moderate or reverse the rise

TABLE 4 LOSS OF RICE CROP OUTPUT BY FLOODS AND DROUGHTS, BANGLADESH, 1970-1977

Year	Rice Production	Flood and Drought Loss	
	(Million Tons)	Million Tons	% of Potential Production
1970	11.1		
1971	10.9		
1972	9.7		
1973	9.9		
1974	11.1		
1975	11.1		
1976	12.1		
1977	11.1		
Average	11.1		

TABLE 5 IMPORT OF FOODGRAINS, BANGLADESH, 1970/71-1974/75

Year	Import of Foodgrains	Food Gap	Import as Per Cent of Food Requirement
1971-1972	1688	1800	15.9
1972-1973	2825	1423	25.9
1973-1974	1667	506	14.9
1974-1975	2290	1062	19.9

NOTES:

- + Figures for the import of foodgrains and food gap are in thousand tons.
- ++ Food gap equals food requirement less net output.

SOURCE: Alamgir (1980:221).

NOTE: Potential rice production :

in agricultural prices. Unless the agricultural supply shocks are devastating for all the crops harvested throughout the year (a rare phenomenon!), the prices of all farm products are unlikely to rise simultaneously to have a significant impact on the general price level. Historical experience shows that as major agricultural supply shocks are few and far between, there does not exist a stable relationship between such shocks and inflation. For example, despite occasional food crop failures, there were not even two years in a row with high inflation in Bangladesh during the 1950s and 1960s. Fluctuations of crop prices, rather than inflation, were the major problem for the rural people in Bangladesh (Hossain, 1989). Papanek (1981) suggests that, despite large crop price fluctuations, there were two reasons behind the overall price stability in United Pakistan. First, inflationary expectations were not built up in the minds of the people. Second, the government maintained a conservative monetary and fiscal policy with the explicit aim of maintaining price stability. The following discussion will reveal that food crop-damage by floods and droughts was not the primary source of Bangladesh's inflation during the period 1972 to 1975.

Table 4 shows that the average annual food crop loss by floods and droughts was about 6 per cent during the period 1970 to 1977. The question is whether a food crop loss of this magnitude was the primary source of high inflation during the period 1972 to 1974. Note that the rice crop loss due to floods and droughts was unusual in two years (that is, 1971 and 1975). The point of contention is whether a 15 per cent loss of rice crop output during 1971 had a flow-on effect on the general price level in subsequent years.

To begin, even a staple food crop loss by a natural disaster does not necessarily lead to inflation. In an open economy, food items can be imported to fill in food gaps. This usually happened during the 1950s and 1960s when the government imported foodgrain under foreign aid programs. As Alamgir (1980) points out, the 1971 crop loss was also mitigated by imported foodgrain under food aid programs during the first two years of independence. Table 5 shows

that the volume of imported foodgrain was actually higher than the food gap for all but one year during the period 1971 to 1975. Although the volume of food imports during 1971/72 was smaller than the food gap by 112 thousand tons, the volume of food imports during the next year exceeded the food gap by 1412 thousand tons. Even the volumes of food imports during the next two years were higher than the corresponding food gaps. This explains why food prices were relatively stable during the years of 1972 and 1973 (Table 6).

It is somewhat ironic for those who expected a famine after the Independence War that the food prices were stable during 1972-1973. Bose (1972) went a step further and came up with the idea that the potential famine of Bangladesh during 1971/72 was actually "exported to India". He also made the observation that, contrary to popular views, Bangladesh's agriculture did not suffer much from the Pakistani military intervention:

... the total foodgrain saving in Bangla Desh resulting from the massive killing of people by the Pakistan armed forces and the exodus of millions as refugees amounted to at least 0.50 million tons for the period under consideration. The quantity is nearly one half of the annual foodgrain imports to Bangla Desh in recent years. Thus a potential famine in Bangla Desh has been "exported" to India.

Agriculture has also suffered to some extent due to the reign of army terror and destruction in the countryside and the breakdown in the supply of certain inputs like fertilisers and insecticides from urban areas. But the economy has withstood the ravages of war largely because it has been mainly a subsistence type agricultural economy with barely 8 per cent (5.2 per cent

according to 1961 census) of the population living in urban areas, and dependence of agricultural production on industrial inputs has been only marginal. Therefore, the level of economic activity in rural areas has not drastically declined and employment and income of the very poor, mainly wage earning people in the countryside has not suffered as much as one would otherwise imagine. Also considerable depletion of population in most areas has tended to increase employment for those who remained.

It is wrong to assume that in a labour surplus agriculture depletion of a certain proportion of population in various localities necessarily causes labour shortage and decline in agricultural production (Bose, 1972:299,303,306).

In short, although the 1971 food crop loss was unusual, it did not have a significant flow-on effect on food prices during the years of 1972 and 1973. Table 4 shows the randomness of crop damage by floods and droughts. For example, after the large shock in 1971, the average annual damage of rice production by floods and droughts was just 3.6 per cent for the next three years (1972-1974). A crop loss of this magnitude can be considered usual for Bangladesh, in the sense that its effects on prices and other macroeconomic variables are unlikely to be significant.

Like the 1971 food crop damage, it was during 1974/75 that food crop loss by floods and droughts was high at about 12 per cent. As indicated earlier, the floods of 1974 occurred during the months of June to September and peaked during the months of August to September (Etienne, 1977). Although these floods damaged food crops and destroyed employment opportunities for rural workers,

they do not fit well with the sharp rise in the relative price of food that started as early as January/February 1974 (Table 6).

When all these points are put together, it is difficult to establish a stable relationship between floods and inflation in Bangladesh during the period 1972 to 1975. This does not, however, mean that these and other shocks, namely the OPEC oil shock in September 1973, did not have some impact on the general price level. They jointly and individually created economic uncertainties, raised price expectations and contributed to inflation in 1974. But they were unlikely to be the primary source of inflation that was ignited in 1972.

IV. THE RISE IN THE RELATIVE PRICE OF FOOD

It is widely accepted that the immediate cause of the famine was the sharp rise in the relative price of food during 1974. One contentious issue is why did the price of food rise when the per-capita availability of food was higher in 1974 compared with that in the preceding years

raised the relative price of food.

At the official level, there were four reasons for the rise in the relative price of food during 1974. First, floods and droughts caused heavy losses of food crops and raised their prices. Second, facing a shortage of foreign exchange, the government was unable to import foodgrains to fill in the food gap created by floods. Third, the US government, for political

TABLE 6 THE RELATIVE PRICE OF FOOD, BANGLADESH, 1973M1-1975M12

	100x(FPI/CPI)			100x(RPR/WP)			
	1972	1973	1974	1975	1973	1974	1975
January		102.3	104.3	119.1	95.8	103.7	187.8
February		100.6	101.4	116.2	102.2	104.2	181.0
March		100.8	102.1	113.7	112.8	109.8	182.3
April		100.5	103.9	110.1	130.4	124.6	170.4
May		99.3	103.8	107.3	135.9	117.2	167.1
June	104.8	99.6	107.8	107.6	130.3	124.4	162.4
July	104.1	107.4	107.8	108.9	119.9	137.4	157.8
August	107.3	104.5	112.2	106.4	116.6	152.9	147.3
September	109.1	105.2	118.3	106.6	115.1	147.4	130.2
October	109.9	113.0	121.9	105.8	117.2	156.2	125.6
November	106.9	104.4	122.3	83.7	109.8	169.3	131.7
December	105.9	105.1	122.8	101.0	102.1	169.7	127.2

NOTE:

+ CPI is the consumer price index for middle class government employees in Dhaka; FPI is the food price index for middle class government employees in Dhaka; RPR is the unweighted average of the indices of retail prices of coarse quality rice in Dhaka, Chittagong and Rajshahi; and WP is the wholesale price index in Bangladesh.

SOURCES: Author's computation based on the Bangladesh Bank Bulletin (December, 1973) and the Economic Indicators of Bangladesh (various issues).

of 1972 and 1973? There was a relatively good *Aman* harvest of 6.7 million tons during the

months of November 1973 to January 1974 compared with the harvest of this food crop of 5.6 million tons in the previous year. Nevertheless the relative price of food started to rise in the open market immediately after the harvesting season. The food price continued to rise until it reached the peak in March 1975. Thereafter food prices stabilised but dropped only when the government was overthrown by a military coup on 15 August 1975 (Table 6). An investigation of factors that might have caused the famine is thus considered by many as equivalent to an investigation of factors that

reasons, cut off food aid under PL-480 during the crucial month of September in 1974. This led to speculative hoarding and caused the food crisis. Fourth, food prices in international markets rose sharply, causing a rise in domestic food prices.

Even though there are elements of truth in each of these explanations of the food crisis, they do not tell the whole story. First, Amartya Sen and others, for example, have shown that the per-capita availability of food during 1974 was higher (despite floods and droughts) than that in the preceding years of 1972 and 1973. This suggests that the loss of food crops by floods was not large enough to lower the level of food

availability to such a level that would have caused the sharp rise in the relative price of food. As indicated earlier, there was also mismatch between the time when floods occurred and the time when food prices started to rise. Second, there was no convincing economic explanation from the government why the balance of payments crisis developed in the first place. Third, by the time the US government made the decision to cut-off food aid to Bangladesh, the country was already in the grip of famine. It is explained below why the arrival of about 20 thousand tons of foodgrains without interruption would have made little difference to the suffering of the rural poor. Fourth, Ravallion (1987) has examined whether food prices in the domestic markets of Bangladesh were insulated from those of world markets. He has drawn the following conclusion based on his test results for the 36 months from July 1972 to June 1975:

... domestic markets in Bangladesh were effectively segmented from world markets during this period. The domestic price instability is not attributable to conditions in foreign markets [Ravallion, 1987:95].

The remainder of this section provides an explanation for the rise in the relative price of food within a macroeconomic framework.⁵ It incorporates the impact of floods on food prices primarily through price expectations and also investigates two contentious issues, namely, the hoarding and smuggling of foodgrains. The latter issues are crucial in understanding the mechanisms through which some manageable economic problems turned into an economic disaster.

(a) Hoarding of Foodgrains

It was not the aggregate availability of foodgrains per se but the actual demand for and supply of foodgrains in the open market that determined the price of food during or prior to the famine. On the demand side of the food

market, there were a number of factors behind the precautionary and speculative demand for foodgrains, namely: economic uncertainties in the midst of high inflation, a deteriorating law and order situation, massive corruption, and the lack of confidence of the people in the ability of the government to stabilise the economy. Having faced an uncertain economic situation, consumers (as a precautionary measure) bought more foodgrains than what they needed for present consumption. It is, however, to be noted that although the rich and middle class consumers were able to realise their increased precautionary demand for foodgrains, the poor consumers (due to liquidity constraints) were able to realise only a portion of their increased demand for foodgrains. This was generally achieved by switching demand from non-food items to food items, given that their real income remained constant if not decreased.

Along with consumers who hoarded foodgrains for future consumption, speculators hoarded large quantities of foodgrains when they anticipated a sharp rise in the price of food (Alamgir, 1980). Many of these hoarders and speculators belonged to the *nouveau riche* class who made their fortunes through various means (legal and illegal), namely government licenses, permits, rations, and extortions. Many other types of corrupt activities flourished after the independence of the country (Barua, 1978; Maniruzzaman, 1980). Thus people with political connections and/or access to resources of the state were able to make fortunes. They were also in a position to consolidate their economic positions through hoarding of foodgrains (Lifschultz, 1974a,b).

The situation deteriorated further when *bona fide* rice traders in big cities started the speculative hoarding of foodgrains in an anticipation of the food crisis. Their expectations of food prices were based primarily on the actual or potential damage that was caused to food crops by floods. As the country had only a limited amount of foreign exchange reserve, rice traders were generally pessimistic about the ability of the government to import foodgrains to the extent necessary to fill in the food gap. Ravallion (1987) has studied the behaviour of rice traders in Dhaka

and showed how the price forecasting errors of them led to excessive hoarding.

On the supply side of the food market, both rice traders and farmers released less foodgrains in the open market. When the food crisis developed, the leakage of foodgrains from the official rationing system into the open market also dried up. Note that when the economic condition was relatively normal, the affluent recipients of foodgrains from the urban rationing system used to sell such foodgrains in the open market and reaped a handsome premium. This kept the open food market stable by increasing the aggregate supply of food. When everybody was expecting a sharp rise in the price of food, the affluent recipients of foodgrains from the rationing system stopped releasing rationed foodgrains into the open market in an anticipation of even higher food prices in the future.

Looking from both the demand and supply sides of the food market, it thus appears that the food crisis was essentially a self-fulfilling prophecy. While the behaviour of all participants in the food market was rational from an individual's viewpoint, their joint action caused panic in the food market.⁶ The food price rose sharply when rising inflationary expectations raised the demand for food while the supply of food decreased as farmers and traders released less food in the market. By the time floods engulfed the country, there was a consumer panic. After that it did not take much time for consumers and hoarders to empty the food market. This was the time when food prices reached such a high level that it was beyond the purchasing power of the rural poor or unemployed.

(b) Smuggling of Foodgrains

Along with precautionary and speculative hoarding, the smuggling of foodgrains to India by "anti-state elements" was part of the official explanation of food crisis during 1974. There was, however, no economic explanation for why foodgrains were smuggled out when there were apparent food shortages within the country. On the question of the volume of smuggling of foodgrains, there are two schools

of thought. The widely accepted view is that there was a large scale smuggling of foodgrains to India since Bangladesh gained independence. Over time, this dwindled the food stock and caused the food crisis by the time famine occurred (Alamgir, 1980; Ahmad, 1984; Maniruzzaman, 1980). An alternative view is that as food prices in India were lower vis-à-vis those in Bangladesh during or prior to the famine, it does not make sense to suggest that there was a large scale smuggling of foodgrains to India. Citing a survey study by Reddaway and Rahman (1975), Sen (1981) appears to be supportive of this latter view.

Although Sen was correct to raise a valid theoretical point, he did not go into depth to find out if there were any other reasons behind the smuggling of foodgrains, raw jute, and other essential products. To begin, it is to be noted that the smuggling of essential products from Bangladesh to India was not necessarily a normal commercial transaction based on the price differentials of those products between these countries. In all intents and purposes smuggling was a conduit of capital flight from Bangladesh to India. Rahim (1973:8) provided this interpretation immediately after independence:

In a two-way flow of smuggling, the composition of goods availability may change without altering the total availability. However, ... the form of smuggling that we have been experiencing in Bangladesh is not really in the form of illegal trade rather in capital flight. It is suggested that huge Bangladesh currency notes are being smuggled to foreign countries and sold at a discount. These currency notes are subsequently used for purchasing goods from Bangladesh resulting in an one-way outflow of goods from Bangladesh to abroad.

There were at least two groups of people who were engaged in capital flight from Bangladesh during the early 1970s. First, as already indicated, a section of the interlocking political and business elite amassed large fortunes through all types of illegal practices that flourished in a heavily regulated economy (Maniruzzaman, 1980; Islam, 1985). The *nouveau riche* class did not have investment opportunities within the country so that they could legitimise their fortunes. Islam (1977) points out that this was one of the reasons why the government gradually relaxed the prohibition of large-scale investment in the private sector under a socialist model of development. However, not many people took the opportunity to invest within the country. Many of them became too concerned about the security of their newly accumulated wealth, even though they had political connections and virtual "immunity from prosecution". When the country plunged into anarchy, various left-leaning armed political activists exposed the illegal activities of elites in the society (Barua, 1978; Maniruzzaman, 1980). This created further psychological pressure on the *nouveau riche* class (if not a mortal fear) and led them to transfer capital to India as a perfect destination. Second, the minority Hindu community in Bangladesh remained insecure, even after the country's independence, as the law and order

situation deteriorated rapidly. Most of them lost their property during the early phase of the Independence War to the hands of people who either supported the Pakistani military or just took advantage of the military's policy of "elimination" of the Hindu community. After the independence of the country, the newly established political elite (and its supporters) either grabbed or attempted to grab whatever properties were left to this weak and vulnerable section of the community. Consequently, many Hindu community members sold their properties with a heavy discount and remitted funds to India. Such capital flight was either part of their decision to emigrate to India or to create a safety nest for the future under the supervision of their relations who might have settled in that country much earlier.

For both these groups of people involved in capital flight, the trouble was to find a channel through which they could transfer funds without hassle or detection. Private capital outflows were officially prohibited. Foreign currencies (except the Indian currency notes that were used for transactions within Bangladesh) were not readily available even in black markets. As both exporting and importing trade were conducted mostly by the state bodies, the scope for either underinvoicing of exports or overinvoicing of imports was not wide open for private individuals. Other mechanisms of capital flight, such as inflated overseas medical bills and educational expenses and funds for foreign travel, were available only to a limited extent.

Having faced such practical difficulties in transferring capital, the main option remaining for asset-holders was to smuggle out the taka notes (and precious metals) into India where there were active black markets for those currency notes and precious metals. Private money-changers in India generally converted the taka notes into the Indian currency with a heavy discount. They, in turn, sold the taka notes to smugglers who purchased those essential products from Bangladesh that had excess demand in India. This was the common mechanism for capital flight from Bangladesh to India, and it satisfied the interests of all parties concerned. This also explains why

foodgrains were smuggled out from Bangladesh into India even when the food price differential was not large enough to induce such smuggling during or prior to the famine. Alamgir (1980) points out that smuggling was done by big operators who collected rice at places inland and moved it across the border by boats, barges, trucks and so forth. Many political leaders and their supporters were actively involved in the smuggling of foodgrains, raw jute and other products with the connivance of police and other law-enforcing authorities. The following quote from Ravallion (1987:78-79) is revealing:

... the government's use of military action against hoarders and smugglers in May 1974 was soon terminated when the army apprehended numerous members of the Awami League (Maniruzzaman, 1975). By late 1974, many observers, including the Finance Minister, Tajuddin Ahmed, claimed that the famine was as much the result of the government's activities as of bad weather.

(c) **Politics of Food Aid**

Many authors, such as Ravallion (1997), Sobhan (1978) and Taslim (1998), have emphasised that the withholding of food aid to Bangladesh by the US government, for political reasons, during the critical months of food shortage contributed to the famine. The cut-off of food aid at a time when the country was devastated by floods raised inflationary expectations and caused economic uncertainties that induced the precautionary and speculative hoarding of foodgrains. While the American action was deplorable, it is however an exaggeration to claim that the threat to cut off food aid of about 20 thousand tons in September 1974 was the prime cause of famine. This was just one among many other factors that raised food prices by raising price expectations and creating economic uncertainties. As already discussed, the process of famine started when inflation took off in

1972 due to indisciplined monetary and fiscal policy. Moreover, a deteriorating law and order situation and the rapid growth of "black money" were linked with the smuggling and hoarding of foodgrains. By the time famine struck the nation, the situation was so explosive and volatile that there would have been little difference to the suffering of the rural poor even if the US food aid arrived without an interruption. The government officially declared famine in late September, but some *langarkhanas* (free food for destitute centres) were already opened in early September under private initiatives (Sen, 1981). The people were on "famine diet" as early as March 1974. Following is a quote from Alamgir (1980:119,128,129) that gives a vivid picture of unfolding of the tragedy:

... by the end of March 1974, leading newspapers in the country were reporting that people were eating alternative "famine foods". It was also reported that begging and promiscuity were increasing. Lack of food and employment was forcing people to leave villages for cities and towns... The usual response of the government was either that the reported worsening of the food situation was exaggerated or that there was no reason for undue alarm since the administration was in full command of the situation... By the end of August, the whole of Bangladesh turned into an agonizing spectacle of confusion and human suffering. With the addition of flood, it was 1943 re-enacted. Streams of hungry people (men, women, and children), who were nothing but skeletons, trekked into towns in search of food... Long travels had depleted

the victims' energy even further and after a few days of "wandering" around the streets of the city they simply collapsed and died.... It seemed flood had provided an excellent excuse to the administration to escape its own responsibility in the handling of food crisis and its failure to avert the famine.

(d) Balance-of-Payments Crisis

One of the correlates of the famine was the inability of the government to import foodgrains due to a foreign exchange constraint. The point which has been emphasised repeatedly is that it was not the shortage of foodgrains per se that caused the food crisis. The major problems were the misgovernance of the state and the populist nature of economic policies. Despite the adequate availability of food within the country, the government was unable to stabilise the food market because the people lost confidence in the government's ability to stabilise the economy.

There is little doubt that a large scale import of foodgrains by the government would have stabilised the food market. However, to be realistic, not many poor countries have command over large foreign resources that enable them to import whatever they need to meet domestic production shortfalls. Both sound economic policies and economic planning and strategies dealing with shocks are crucial for macroeconomic management. For Bangladesh, a key question is why the foreign exchange crisis developed in the first place.

A review of exchange rate policy would reveal that Bangladesh's balance of payments crisis was primarily the consequence of indisciplined economic policies. The grossly overvalued real exchange rate created by its high inflation vis-à-vis that of its trading partners created unsustainable trade deficits. In the absence of adequate capital inflows, sustained trade

deficits dwindled foreign exchange reserves. From an analytical perspective, the fixed exchange rate system that Bangladesh adopted was simply incompatible with its expansionary economic policies.

The main point, that an overvalued currency created the balance of payments crisis, can be explained using the example of raw jute. Raw jute was the major export item of Bangladesh during the early years of independence. The smuggling of this item to India sharply reduced Bangladesh's export earnings. For example, the volume of raw jute export in 1970 was 35 *lakhs* of bales that reduced to just 15.5 *lakhs* of bales during 1974/1975 (Ahmed, 1984; Hossain, 1989; Maniruzzaman, 1980). What was the cause of smuggling of raw jute to India? Was it a purely law and order problem as many commentators would like to suggest? As indicated earlier, the deteriorating law and order situation was partly behind capital flight in which raw jute acted as a conduit. But the exchange rate arrangements of Bangladesh with India were much to blame for the decline of official export earnings. Recall that given the official parity between the taka and the Indian rupee, the taka became grossly overvalued with the Indian rupee because inflation in Bangladesh was around four times higher than that in India during the period 1972 to 1975 (Hossain and Rashid, 1996). The overvalued exchange rate of the taka created disincentives to jute growers (thereby reduced jute acreage/production) and also provided incentives for the smuggling of raw jute to India (Lifschultz, 1974a). A similar explanation was given by Ahmed (1984), Hagen (1973), Wright (1988) and others. Thus, in short, the inability of the government to import foodgrains cannot be considered a sudden random event that occurred only during 1974. It was the consequence of both economic policies and the fixed exchange rate arrangements that were in place since 1972.

(e) Empirical Results

The earlier sections suggest that excess money supply caused inflation. As the increase in the general price level was associated with a rise in the relative price of food, it is possible to argue

that the factors which increased the price level might have raised the relative price of food. In order to find out whether the money supply growth rate contributed to the growth of the relative price of food, the following regression equation has been used for estimation purposes:

$$\begin{aligned} \Delta \ln (\text{FPI/CPI})_t &= \alpha_0 + \sum \beta_i \Delta \ln M_{j,t-i} \\ &+ \sum \eta_i \ln \text{FO}_{t-i} + \sum \lambda_i \ln \text{CD}_{t-i} \\ &+ \sum \psi_i \ln \text{FM}_{t-i} + \upsilon_t \end{aligned}$$

(i = 0,1,2...; j = 1,2)(6)

where FPI is the food price index, CPI is the consumer price index, Mj is the stock of narrow or broad money, FO is the off-take of foodgrains from government stocks through the rationing system, FM is imported foodgrains, CD is a measure of crop damage by floods and other natural causes, and υ is a random error term that captures the effects of random factors, including economic growth. The expected signs of the parameters are as follows: $\beta_i > 0$, $\eta_i < 0$, $\lambda_i > 0$ and $\psi_i < 0$.

Given the availability of data, this equation has been estimated for the period 1972M8 to 1975M8. After experimenting with the general form of the specification with at least two lagged terms, the estimated equations reported in Table 7 have been found to fit the data best.

The regression results in Table 7 show that the coefficients of current and one period lagged money supply growth bear a positive sign and are significant at the 5 or 10 per cent level. This suggests that the growth rate of the money supply raised the relative price of food. Note that these results are somewhat different from those of Ravallion (1987) who did not find a significant impact of the money supply growth on the price of food. The coefficients of crop damage and food imports bear their expected signs, but only the coefficient of food imports is significant. This shows that a rise in food imports had a dampening effect on the relative price of food.

V. AGRICULTURAL WAGES AND EMPLOYMENT

Like the Bengal famine of 1943, the Bangladesh famine of 1974 was essentially a

rural phenomenon. Alamgir (1980:14) calls it a class famine, in the sense that "the burden of foodgrain intake deficiency per-capita and excess mortality falls primarily on the weaker sections of the population with little staying power". The famine victims included mainly the assetless rural poor, namely wage labourers, transport workers, village craftsmen, and petty traders. The wage labourers became famine victims when their wage incomes decreased sharply due to the simultaneous decline in both the wage rate and employment. Moreover the sharp rise in the relative price of food lowered the food purchasing power of their wage incomes.

On the basis of a famine survey by the Bangladesh Institute of Development Studies, Alamgir (1980) estimated the decrease in the level of rural employment between July-October 1973 and July-October 1974. Table 8 shows that the level of employment of landless labourers decreased sharply in the famine area. This decrease in the level of employment was due to a decrease in demand for wage labour. The question is why the level of employment fell despite a decrease in the real wage rate. Chadha and Teja (1989) suggest that the rise in involuntary unemployment during the famine was caused by the unwillingness of employers to hire workers at a very low real wage rate because the low real wage rate meant the possibility of undernourishment and of low work effort of workers. This explanation for the decrease in labour demand is not satisfactory. The efficiency wage theory has been found inconsistent with empirical evidence from both Bangladesh and India (Ahmed, 1981; Bardhan, 1984; Binswanger and Rosenzweig, 1984). Ravallion (1987) suggests that the efficiency wage theory was also inconsistent with empirical evidence from Bangladesh during the famine. The explanation which comes closest to reality is that the rise in involuntary rural unemployment during the famine was the consequence of a series of supply shocks of different magnitude beginning from 1971 up to 1974.

These supply shocks had a cumulative adverse effect on both farm and non-farm activities. The immediate shock was the country-wide flood in

1974 that damaged major crops and lowered the employment opportunities of wage labourers. As most non-farm activities in rural areas were linked with farm activities, the decrease in farm activities had a flow on effect on non-farm activities. This lowered employment opportunities for various service providers, namely village craftsmen, petty traders, and transport workers.

TABLE 7 REGRESSION RESULTS OF THE GROWTH OF RELATIVE PRICE OF FOOD ($\Delta \ln$ (FPI/CPI))

	(With M1)	(With M2)
C	-0.03 (0.47)	-0.03 (0.53)
$\Delta \ln M1_t$	0.18 (1.96)	
$\Delta \ln M2_t$		0.21 (2.05)
$\Delta \ln M1_{t-1}$	0.20 (2.28)	
$\Delta \ln M2_{t-1}$		0.18 (1.69)
$\ln FIM_t$	-0.01 (2.89)	-0.01 (2.67)
$\ln CD_t$	0.02 (1.31)	(0.02) (1.35)
Seasonal dummies		
R ²	0.44	0.41
DW	1.83	1.66
Sample Period	1972M8-75M8	1972M8-75M8
Diagnostics:		
A: Serial Correlation: F(12,10)	1.04	0.79
B: Functional form: F(1,21)	1.42	3.48
C: Normality: X2(2)	2.41	2.67
D: Heteroskedasticity: F(1,36)	0.01	1.16
F-test (Ho: $\beta_0 = \beta_1 = 0$)	F(2,22)= 4.02	F(2,22)=3.32

NOTES:

+ R² is the adjusted coefficient of determination, DW is the Durbin-Watson statistic and the figures in parenthesis are absolute t-ratios.

++ The equation was also estimated in disequilibrium form. The coefficient of the lagged dependent variable has been found insignificant while the coefficients of all other variables were found to remain broadly unchanged.

DATA SOURCES: See Data Appendix.

TABLE 8 PERCENTAGE DECLINE IN EMPLOYMENT OF HIRED LABOURERS BETWEEN JULY-OCTOBER 1973 AND JULY-OCTOBER 1974

Area	Landowners	Landless labourers	All villagers
All area	5.0	18.7	4.6
Famine area	33.9	34.5	24.5
Non-famine area	-7.7	6.4	-2.4

SOURCE: Alamgir (1980:346).

When the economic condition began to deteriorate, the rich and medium farmers experienced the pressure of actual or perceived economic stress. Facing economic distress, they reacted in two ways. First, as a cost cutting measure, they used family labour more intensively for farm activities that would otherwise have been done by wage labourers. Such a substitution of family labour for wage labour lowered the demand for wage labour. Second, most non-essential farm and non-farm activities were deferred until the economic condition had improved.⁷

On the supply side, the sharp rise in the relative price of food increased the supply of wage labour for two reasons. First, the decrease of the "food wage rate" was associated with the decrease of the reservation wage rate of wage labourers and, for survival, they offered more labour for sale. Second, new workers (children, destitute women and the old) entered the labour market under economic distress.

In short, the simultaneous decline in the real wage rate and employment under economic stress was not necessarily a case of complete market failure; rather, it manifested the "perverse behaviour" of workers under economic distress.

VI. POLITICS OF FOOD DISTRIBUTION

Famine becomes a greater tragedy when the government of a famine-struck country fails to act as an honest distributor of available food among the most needy. It is generally the case that the government which presides over a famine does not remain above the politics of food distribution. Even during the crisis,

politicians in power serve their own interests by sharing resources with those groups of people who need them the least for survival. For example, as the modern state machinery is located in cities, the city residents are generally protected at any cost. This makes famine a rural phenomenon.

The Bangladesh government's famine relief efforts were limited and unorganised. The government was inadequately prepared to face the challenge. As it happened during the 1943 famine, the rural rich people remained unscathed from the 1974 famine. Most food surplus farmers indeed benefited from the food crisis. For example, for political reasons, there were not much efforts from the government for domestic food procurement from surplus farmers through the existing levy system. As Alamgir (1980) suggests, the government's domestic food procurement program was a "dismal failure".

When the misfortune hit the nation, the urban food politics got priority over the suffering of rural masses. Whatever happened to the rural community, the government ensured subsidised food to all the urban people on a priority basis through the rationing system (Sobhan, 1978). To begin, whatever might have been the original rationale behind the introduction of food rationing in Bengal during the 1940s, it later turned out to be an arm of political-patronage and favour. The political objective of the Bangladesh government behind the continuation of food rationing became apparent the way it allowed the distribution of foodgrains during the famine (Lifschultz, 1974b).

The food rationing was also an inherently

corrupt system. As the differential between the market and ration prices of foodgrains was large, most ration dealers, political touts, and urban dwellers used the rationing system as a milch cow. At the time when the government's food stock was reduced to a minimum, there was a proliferation of bogus ration cards for households that never existed. In addition, the inclusion of fictitious names in existing ration cards created an additional demand for rationed foodgrains and other essentials. When food prices started to rise sharply in open markets, the whole establishment directly or indirectly connected with the rationing of food and other essentials made a fortune. By the time food crisis developed, food distribution through the rationing system became too chaotic to trace leakages. For example, it was a common knowledge that at least 50 per cent of whatever small quantities of foodgrains were allocated for distribution among the rural poor through the rationing system went missing or ended up in the hands of hoarders and smugglers. This made ration dealers the most fortunate people. Given the political atmosphere, they generally operated under the protection of political touts linked with the ruling party. This explains why the US food aid, if it had arrived uninterrupted, might have been distributed among lucky urban-dwellers and/or ended up in the hands of hoarders, speculators and smugglers, and would have had little impact on the situation of those who suffered most.

VII. SUMMARY AND POLICY IMPLICATIONS

This paper has investigated (within Sen's entitlement approach) aspects of key economic events that led to the 1974 Bangladesh famine. To begin with, this famine was not caused by a sudden decline in the aggregate availability of food by natural disasters. The process of famine started in 1972 when inflation took off in an otherwise price stable country. By the time inflation exploded in 1974 a large section of the rural people belonging to the lower middle class had already slid downward into the poverty trap. Their exchange entitlement failed when rural employment opportunities decreased due to floods and food prices rose sharply due to the precautionary and speculative hoarding

of foodgrains.

An investigation of the sources of inflation suggests that rapid money supply growth, along with large quantities of counterfeit and foreign currencies in circulation, created the classic symptom of high or hyperinflation: "too much money chasing too few goods". In a war-ravaged economy a sudden explosive growth of the money supply in 1972 accelerated inflation that year. Although inflation decelerated in 1973, it remained at a high level. Inflationary expectations were then built up when the people lost confidence in the ability of the government to stabilise the economy. High inflationary expectations lowered money demand and created an explosive inflationary situation by the time the famine occurred. While the high rates of inflation over three years created the environment for an economic disaster, the immediate cause of the famine was the sharp rise in the relative price of food. It has been found that the money supply growth rate contributed to the growth rate of the relative price of food. The rise in the relative price of food lowered the food purchasing power of wage incomes of rural workers and pushed them toward the famine trap, especially when floods destroyed their employment opportunities.

On the basis of both empirical findings and the discussion on various economic and non-economic issues, it is possible to draw some policy implications within a broader perspective. First, in the absence of a strong political opposition and/or an effective Parliament, there remains a temptation on the part of government in a developing country to undertake populist macroeconomic policies in order to achieve short term political objectives. Populist policies are generally unsustainable and cause economic problems that ultimately hurt the very poor people in whose name those policies are undertaken in the first place. Second, neither hoarding nor smuggling of foodgrains is a pure law and order problem. They are the symptoms of macroeconomic imbalances, price distortions, market segmentation and, above all, the lack of confidence of the people in the ability of the government to stabilise the economy. A

misunderstanding of the causes of hoarding and smuggling of foodgrains may lead to governmental actions that could be counter productive. Third, an inefficient, inflexible and unaccountable administrative system cannot handle a famine. A government that relies on the political support of interest groups and thrives on dispensing political and economic favours cannot also handle an economic disaster. Fourth, without freedom of speech and an independent media, it is difficult to mobilise the people against a government for not undertaking measures that may prevent a famine. Although Bangladesh had a newly framed constitution in which human rights, independent press, independent judiciary, and so on featured prominently, the reality was very different. The ordinary people were afraid to raise their voice against the government. With the exception of a few insignificant political party publications, the print media was owned and controlled by the government or its supporters. The electronic media was absolutely under the control of the government. The foreign press had limited access to information and its interest in publishing events in a less important country like Bangladesh was not that high (Ahmed, 1984; Barua, 1978; Maniruzzaman, 1980; Novak, 1993). In his 1981 book Amartya Sen was "circumspective" in his view on democracy in Bangladesh. He somewhat rectified it in his 1996 essay on the Bangladesh famine. In this essay he was right in speculating what could have happened if the country was blessed with a democratic government. Fifth, foreign economic dependence is an easy option for poor countries as their governments are unwilling to antagonise the economically and politically powerful interest groups for resource mobilisation. Such a dependency may work well when the time is good but can create a nasty situation when the interests of donors and recipients of aid do not match. The 1974 incident between the United States and Bangladesh was not an isolated event; similar incidents are common in international relations. One lesson from this sad episode is that for a poor country like Bangladesh, a superpower can be a master but would remain always an unreliable, unequal partner. Sixth, although natural disasters, such as floods and droughts,

cannot easily be avoided, they create a famine only when the employment opportunities of rural workers are destroyed. To sever the linkage between natural disasters and entitlement failures, there is a need for diversification of employment opportunities for rural workers. For example, the availability of employment opportunities for rural workers in small scale, labour-intensive rural industries that have forward linkages with the urban sector can neutralise or minimise any sudden loss of agricultural employment opportunities. Finally, famines are generally tragic magnifications of normal market and government failures. Building up of economic and political institutions for improved functioning of markets and ensuring government accountability are crucial to reducing the chances of famine. Weak social and physical infrastructure, weak unprepared government, and a relatively closed political regime, all enhance vulnerability to famine (Ravallion, 1997).

NOTES

*A longer version of this paper will appear as a chapter in my forthcoming book (Hossain, 1999).

1. The essence of this monetary hypothesis can be illustrated by invoking the real money market equilibrium condition: $m^d(y, \pi^e) = M/P$, where m^d is real balances that can be considered an increasing function of real income (y) and a decreasing function of expected inflation (π^e). When the money demand function takes a semi-logarithmic form, then the money market equilibrium condition can be expressed as: $\pi = \mu - \eta_y g_y + \eta_p \Delta\pi^e$, where π is the growth rate of the price level (P), μ is the growth rate of the money supply (M), η_y is the income elasticity of demand for money, g_y is the growth rate of real income, η_p is the semi-elasticity of demand for money with respect to expected inflation and $\Delta\pi^e$ is a change in expected inflation. This expression can be used to determine whether a certain money supply growth rate could be inflationary.

2. This decrease in the money supply was due to capital flight during the last phase of the Independence War when there was an exodus of West Pakistani people from Bangladesh and also many Bangladeshi people took refuge in India.

3. Most of these notes were later transferred to India as capital flight.

4. This can be shown as follows. Let the velocity of money (V_m) be expressed as: $V_m = y/f(y, \pi^e)$, where y is real income and π^e is expected inflation. Substitute this expression in the equation of exchange: $M.[y/f(y, \pi^e)] = Py$, where M is the stock of money and P is the price level. This shows that, if both y and M remain constant, P becomes an increasing function of π^e . See Mundell (1971) for a similar specification of the velocity of money.

5. Although Sen (1981) did not examine in detail the factors behind the sharp rise in the price of food, he has expressed his preference for a macroeconomic analysis of the food crisis.

6. Quddus and Rashid (1994:10) aptly put it:

Food is a necessity. Consumers are risk-averse, greatly so, when it comes to storable food. When the consumers expect prices to increase, they attempt to beat the higher prices by buying now. In the absence of a futures market, the only way to "cover" one's exposure to future higher food bills is to buy now in the spot market. This can be looked upon as a form of "self-insurance". Since other ways to reduce or transfer the risk are unavailable, the consumer uses the only alternative available: store food. Therefore, under these conditions, panic buying, hoarding, private storage, and withholding all can be considered "optimizing". Either expected profits are maximized, expected costs are being minimized, or risks are being optimized. Of course, when everyone acts in concert on similar expectations, a crisis develops.

7. The demand for all types of services in rural areas decreased sharply during the famine for the simple reason that they were not essential and were deferred until the situation became normal. When most people in the rural areas were worried about their own survival, the first thing that a potential user of a non-essential service had done was to stop its use altogether. It did not matter much whether the artisan in question was well-fed or not. The question of work effort comes only if an employer decides to employ someone in the first place. Sen (1981) correctly points out that the lack of employment opportunities were the reason for the decline in wages.

DATA APPENDIX

DEFINITIONS OF VARIABLES AND DATA SOURCES

M1	=	Stock of narrow money (currency plus demand deposits, excluding inter-bank items). Millions of taka at current prices. Sources: Various issues of both the Economic Indicators of Bangladesh and the Bangladesh Bank Bulletin.
M2	=	Stock of broad money (currency plus demand deposits, excluding inter-bank items). Millions of taka at current prices. Sources: Various issues of both the Economic Indicators of Bangladesh and the Bangladesh Bank Bulletin.
CPI	=	Consumer price index for middle class government employees in Dhaka city. Sources: Various issues of both Economic Trends and the Bangladesh Bank Bulletin.
FPI	=	Food price index for middle class government employees in Dhaka city. Sources: Various issues of both Economic Trends and the Bangladesh Bank Bulletin.
FM	=	Imports of foodgrains (Tons). Source: Alamgir (1980).
FO	=	Offtake of foodgrains. Source: Various issues of the Economic Indicators of Bangladesh.
CD	=	Crop damage by floods (The Daily Ittefaq). Source: Ravallion (1987).

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