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A WORLD BANK COUNTRY STUDY

**BANGLADESH**  
**Current Trends and Development Issues**

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MARCH 1979



# **BANGLADESH**

## **Current Trends and Development Issues**

**South Asia Regional Office  
The World Bank  
Washington, D.C., U.S.A.**

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## Preface

This report was prepared as background document for the meeting of the Bangladesh Aid Group in January 1979. As such, it is part of the World Bank's ongoing reporting on economic developments in Bangladesh and gives relatively large emphasis to short-run developments. The report, however, also discusses longer-term issues (viz., in the general management of economic development, in agricultural development, in industrial development, and in domestic resources mobilization) and because of this longer-term perspective it was felt that the report might be of interest to a wider readership.

This report is based on the findings of a mission which visited Bangladesh in June 1978, consisting of Carl Jayarajah (chief), Ram Agarwala, Armand van Nimmen and Vinod Thomas. Akeel AlSadi, Fred King and Götz Schreiber also made contributions. Cornelis Jansen bears responsibility for the overall preparation of the report.



## CURRENCY EQUIVALENTS

### Prior to 1972:

US\$ 1.00	=	Pakistan Rs 4.762
Rs 1	=	US\$ 0.21
Rs 1,000	=	US\$ 210.00

### January 1972 - May 1975:

#### Period Averages:

January - June 1972:	US\$ 1.00 = Tk 7.298	Tk 1,000 = US\$ 137.025
July 1972 - June 1973:	US\$ 1.00 = Tk 7.781	Tk 1,000 = US\$ 128.521
July 1973 - June 1974:	US\$ 1.00 = Tk 7.966	Tk 1,000 = US\$ 125.532
July 1974 - April 1975:	US\$ 1.00 = Tk 8.045	Tk 1,000 = US\$ 124.305

### May 1975 - Present:

On May 17, 1975 the Bangladesh Taka (Tk) was officially valued at 30.00 to the Pound Sterling; the rate has been refixed on occasion since then, most recently at 31.125 on January 15, 1979. The Pound is floating relative to the US dollar and consequently the Taka-US dollar rate is subject to change.

#### Period Averages:

May - June 1975:	US\$ 1.00 = Tk 13.032	Tk 1,000 = US\$ 76.735
July 1975 - June 1976:	US\$ 1.00 = Tk 14.852	Tk 1,000 = US\$ 67.331
July 1976 - June 1977:	US\$ 1.00 = Tk 15.467	Tk 1,000 = US\$ 64.655
July 1977 - June 1978:	US\$ 1.00 = Tk 15.122	Tk 1,000 = US\$ 66.131

A conversion rate of Tk 15 per US dollar has been used throughout this report for the period after April 1975 except where indicated otherwise.

## LOCAL QUANTITIES AND WEIGHTS

1 crore	=	10 million
1 lakh	=	100,000
1 maund (md) = 40 seers	=	82.29 lbs.
1 bale	=	400 lbs.

In general, the units of measurement referred to in this report are those which are actually used or are familiar in Bangladesh.

## FISCAL YEAR

July 1 - June 30



BANGLADESH

CURRENT TRENDS AND DEVELOPMENT ISSUES

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COUNTRY DATA - BANGLADESH

<u>AREA</u> 143,998 km <sup>2</sup>	<u>POPULATION</u> 85.0 million (Jan. 1978) Rate of Growth: 2.7% (from 1972 to 1978)	<u>DENSITY</u> (Jan. 1978) 590 per km <sup>2</sup> / 841 per km <sup>2</sup> of agricultural land	
<u>POPULATION CHARACTERISTICS (1975)</u>		<u>HEALTH (1976)</u>	
Crude Birth Rate (per 1,000)	46	Population per physician	11,350
Crude Death Rate (per 1,000)	18	Population per hospital bed	4,430
Infant Mortality (per 1,000 live births)	140		
<u>INCOME DISTRIBUTION (1974)</u>		<u>DISTRIBUTION OF LAND OWNERSHIP (1977)</u>	
% of national income, highest quintile	38	% owned by top 10% of owners	47
lowest quintile	8	% owned by smallest 10% of owners	1
<u>ACCESS TO PIPED WATER (..)</u>		<u>ACCESS TO ELECTRICITY (1973)</u>	
% of population - urban	..	% of population - urban	3
- rural	..	- rural	..
<u>NUTRITION (1975)</u>		<u>EDUCATION</u>	
Calorie intake as % of requirements	93	Adult literacy rate % (1976)	22
Per capita protein intake (grams)	58.5	Primary school enrollment % (1975)	73

GNP PER CAPITA in 1977<sup>1/</sup>: US \$ 90

<u>GROSS NATIONAL PRODUCT IN 1977/78</u> <sup>3/</sup>		<u>ANNUAL RATE OF GROWTH (% constant prices)</u>			
	<u>US \$ Mln.</u>	<u>%</u>	<u>1960-65</u>	<u>1965-70</u>	<u>1974-1978</u>
GNP at Market Prices	7,309	100.0	4.6	3.6	6.7
Gross Domestic Investment <sup>4/</sup>	890	12.2	15.5	6.3	15.8
Gross National Saving	106	1.5	3.3	5.4	..
Current Account Balance	-786	-10.8	.	.	.
Exports of Goods	497	6.8	2.0	3.9	1.3
Imports of Goods	1,349	18.4	12.2	6.8	6.1

OUTPUT, LABOR FORCE AND PRODUCTIVITY IN 1977/78

	<u>Value Added</u> <sup>3/</sup>		<u>Labor Force</u> <sup>2/</sup>		<u>V. A. Per Worker</u>	
	<u>US \$ Mln.</u>	<u>%</u>	<u>Mln.</u>	<u>%</u>	<u>US \$</u>	<u>%</u>
Agriculture	3,929	57	23.3	78	169	73
Industry	933	13	2.0	7	467	202
Services	2,059	30	4.6	15	448	194
Unallocated	.	.	.	.	.	.
Total/Average	6,920	100.0	29.9	100	231	100

GOVERNMENT FINANCE

	<u>Central Government</u>		
	<u>(Taka Mln.)</u>	<u>% of GDP</u>	
	<u>1977/78</u> <sup>5/</sup>	<u>1973/74</u>	<u>1977/78</u>
Current Receipts	12,446	6.0	11.3
Current Expenditure	10,360	6.8	9.4
Current Surplus	2,086	-0.7	1.9
Capital Expenditures	12,522	4.7	11.4
External Assistance (net)	9,208	4.6	8.4

<sup>1/</sup> 1978 World Bank Atlas. All other conversions to dollars in this table are at the average exchange rate prevailing during the period covered.

<sup>2/</sup> Civilian labor force; unemployed are allocated to sector of their normal occupation.

<sup>3/</sup> As a result of the sharp devaluation of the Taka in 1975, the single-year straight exchange rate conversion of 1977/78 GNP into US\$ renders an implicit per capita income estimate not strictly comparable with those shown in the World Bank Atlas.

<sup>4/</sup> Monetized investment only.

<sup>5/</sup> Revised budget.

.. = not available

. = not applicable

COUNTRY DATA - BANGLADESH

<u>MONEY, CREDIT and PRICES</u>	<u>June 1972</u>	<u>June 1974</u>	<u>June 1975</u>	<u>June 1976</u>	<u>June 1977</u>	<u>June 1978</u>
		(Million Taka outstanding, end period)				
Money and Quasi Money	6,992	12,165	12,874	14,784	18,306	22,213
Bank Credit to Public Sector	} 4,266	5,363	5,112	5,832	6,394	..
Bank Credit to Private Sector		3,267	3,011	3,546	5,145	..
		(Percentages or Index Numbers)				
Money and Quasi Money as % of GDP	..	18.6	12.7	14.9	19.2	20.2
General Price Index (1969/70 = 100) <sup>2/</sup>	142.4	303.7	409.7	366.1	407.5	457.3
Annual percentage changes in:						
General Price Index	..	44.4	34.9	-10.6	11.3	12.2
Bank credit to Public Sector	..	..	-4.7	14.1	9.6	..
Bank credit to Private Sector	..	..	-7.8	17.8	45.1	..

BALANCE OF PAYMENTSMERCHANDISE EXPORTS (AVERAGE 1973-1978)

	<u>1975/76</u>	<u>1977/78</u>
Exports of Goods	381	497
Imports of Goods	1,290	1,349
Trade Gap (deficit = -)	-909	-852
Non-Factor Services (net)	} 32	} 66
Interest Payments (net)		
Workers' Remittances		
Other Factor Payments (net)		
Net Transfers		
Balance on Current Account	-877	-786
Direct Foreign Investment	..	..
Net MLT Borrowing:		
Disbursements	570	411
Amortization	67	35
Subtotal	503	376
Capital Grants	244	386
Other Capital (net)	} 77	} 19
Other items n.e.i		
Increase in Reserves (+)	-53	-24
Gross Reserves (end year)	213	270
Net Reserves (end year)	..	..

	<u>US \$ Mil</u>	<u>%</u>
Raw jute	111	27
Jute goods	207	50
Tea	28	7
Leather	32	8
All other commodities	34	8
Total	412	100

EXTERNAL DEBT, June 30, 1978

	<u>US \$ Mil</u>
Public Debt, incl. guaranteed	2,556
Non-Guaranteed Private Debt	..
Total outstanding & Disbursed	2,556

DEBT SERVICE RATIO for 1977 <sup>1/</sup>

	<u>%</u>
Public Debt, incl. guaranteed	13.3
Non-Guaranteed Private Debt	..
Total outstanding & Disbursed	13.3

RATE OF EXCHANGEIBRD/IDA LENDING, June 1978 (Million US \$):

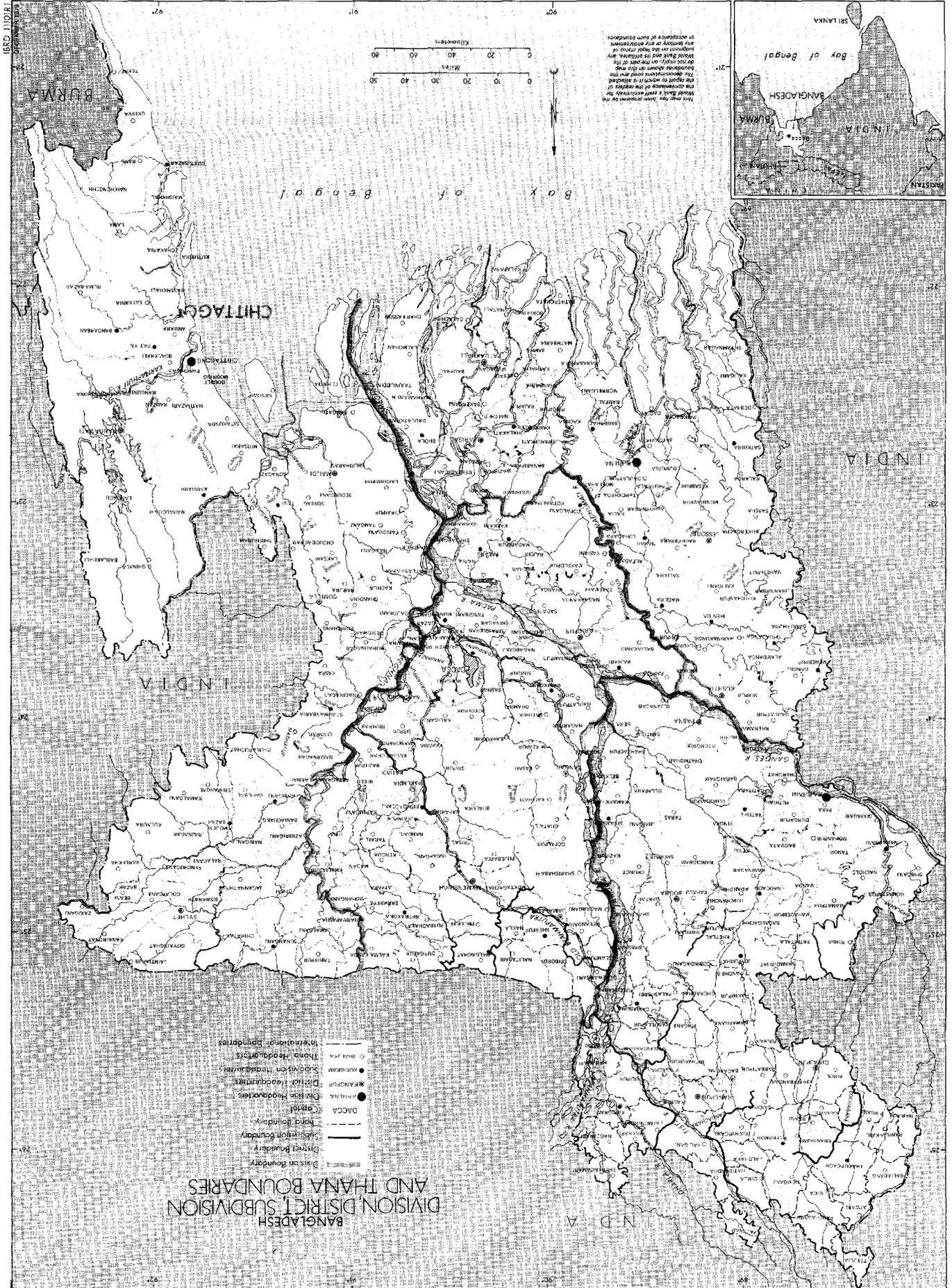
January - June 1972:	US\$1.00 = Taka 7.30
July 1972 - June 1973:	US\$1.00 = Taka 7.78
July 1973 - June 1974:	US\$1.00 = Taka 7.97
July 1974 - April 1975:	US\$1.00 = Taka 8.05
May 1975 - June 1975:	US\$1.00 = Taka 13.032
July 1975 - June 1976:	US\$1.00 = Taka 14.852
July 1976 - June 1977:	US\$1.00 = Taka 15.467
July 1977 - June 1978:	US\$1.00 = Taka 15.122

	<u>IBRD</u>	<u>IDA</u>
Outstanding & Disbursed	54.9	554.2
Undisbursed	-	374.2
Outstanding incl. Undisbursed	54.9	928.4

<sup>1/</sup> Ratio of Debt Service to Exports of Goods only.<sup>2/</sup> Consumer Price Index for Government employees in Dacca; monthly averages for June.

.. = not available

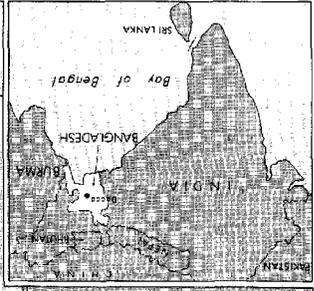
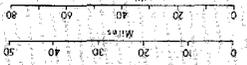
. = not applicable



**BANGLADESH**  
**DIVISION, DISTRICT, SUBDIVISION**  
**AND THANA BOUNDARIES**

- Division boundary
- District boundary
- Sub-division boundary
- Thana boundary
- Dhaka
- Division headquarters
- District headquarters
- Sub-division headquarters
- Thana headquarters

This map was prepared by the Survey of India. It is based on the Survey of India maps of the Bay of Bengal and the surrounding areas. The map shows the boundaries of the divisions, districts, sub-divisions and thanas of Bangladesh. The map is not to be used for navigation purposes.



IBRD 1101R  
 1980



## SUMMARY AND CONCLUSIONS

### Introduction

i. This report provides a brief update on current developments, generally confirming the conclusions of the economic report of half a year ago, and makes a contribution to the discussion on a few selected development issues such as rural development, industrial development and domestic resource mobilization. Economic improvements in recent years and a parallel improvement in political stability have removed the crisis atmosphere surrounding economic policy making in the early years of independence and created a breathing spell in which it is possible to think about the long-term direction of development. The period of the current Two-Year Plan (FY79 and 80) does indeed provide a critical opportunity to come to firm decisions on long-term policy issues and to lay the foundation for the new Five-Year Plan.

### Current Developments and Prospects

ii. Recent estimates confirm that FY78 has been a good year for the economy of Bangladesh. Mostly as the result of a large grain crop, which recovered from the substantial decline in the previous year, and a 10% increase in industrial output, GDP grew by 7.8% in real terms after only 1.7% growth in FY77. The favorable results in agriculture are explained not only by good weather, but also by beneficial actions by the Government: sharply increased supplies of fertilizer, other agricultural inputs and credit, and a larger and more efficient procurement effort at prices attractive to farmers. Results for wheat have been particularly encouraging. Although this crop is limited to the dry (boro) season and, at present, amounts to only 3% of the volume of total grain output, its potential for further growth is large. The crop is attractive because of its low production cost (low need for water) and high nutritional value. The farmers' eager response to this opportunity is, therefore, very welcome. Increased use of the boro season for wheat cultivation is one of the greatest challenges and promises of agriculture in Bangladesh; the net area suitable for wheat cultivation is approximately six times the area presently under wheat. Jute output also increased substantially, partly due to the Intensive Jute Cultivation Scheme (IJCS) which in only a few years' time has been expanded to cover 500,000 acres and is expected to cover one million acres in the current year. For various reasons, however, including high raw jute prices, the jute mills once more suffered large financial losses.

iii. It is too early for an accurate assessment of the growth prospects for FY79. There are some signs of dynamism in agriculture, but the weather has been unfavorable for the aman crop. Since investments in the public and private sector -- particularly in manufacturing -- are showing some growth momentum, it is possible that the overall GDP growth rate will still be ahead of population growth and will amount to perhaps 3.5-4% in real terms.

iv. Last year's acceleration in economic growth engendered rapid fiscal revenue growth. Adjustments in the salaries of government personnel, however, permitted only a small increase in the current surplus. At the same time, development expenditures also rose rapidly and, in spite of increased aid

disbursements, deficit financing amounted to Tk 0.9 billion, about 7% of current revenue. Inflation reappeared, and this is the most worrisome aspect of current developments in Bangladesh. Overall liquidity continued to rise during FY78 and to have its effect on the price level: the cost of living increased by 15% in FY78. Seeking to keep inflation under control, the Government drew up a balanced budget for FY79, but in spite of fast growth in current revenue and large aid disbursements there may still be an overall deficit. Reasons include an apparent underestimation of the cost of the fertilizer subsidy (which partly serves to cover the losses of the fertilizer industry), the still heavy weight of the food subsidy, and the effect of salary and wage increases on the revenue transfers to the budget by the public corporations. The utility of the fertilizer subsidy under present scarcity conditions needs careful reconsideration; by most accounts farmers usually have to pay the market rather than the subsidized price, the margin benefiting the middleman instead of the farmer. There are also other expansionary factors such as the stepped-up grain procurement program, the expanded agricultural credit program and the increasing financial needs of the private industrial sector. It will be hard to contain the combined effect of these potentially inflationary factors during the current year and this in turn is likely to have unfavorable effects on the rate of economic development. Strict financial discipline is needed to prevent the resources for development from being dissipated. Too severe credit contraction, however, would retard the recent increase in activity of the public and private sectors. Efforts to maintain monetary stability should, therefore, be backed up with additional foreign exchange resources to permit continued import liberalization.

v. The most significant development in the FY78 balance of payments was a 56% increase in import payments after a low import level in FY77. Almost one fifth of this increase consisted of an increase in grain imports needed to bring food stocks to a safe level, while the remainder provided much of the necessary external inputs for the acceleration of GDP growth: imports of fertilizer, cement, spare parts, industrial raw materials and capital goods for development projects. There was also a sizeable increase in consumer goods imports. A further interesting development was the rapid increase in remittances, mostly from migrants to the Middle East; an offsetting effect is the loss of trained Bangladeshis, which has led to higher wage costs for skills which are in short supply and to delays in the execution of some development projects. The current account deficit amounted to \$786 million which was fully covered by foreign aid disbursements.

vi. The balance of payments for the current year, FY79, is likely to be marked by a slower growth in imports, but the trade deficit is, nevertheless, likely to be larger than last year's -- partly because of an expected 5% deterioration in the terms of trade after an improvement of 22% in FY78. With private remittances rising further to about \$100 million, the current account deficit is projected at \$1,033 million. In view of the anticipated settlement of certain short-term liabilities and amortization payments on medium- and long-term debt, the total gap to be covered by foreign aid disbursements is estimated at almost \$1,100 million.

vii. The size and composition of the year's opening aid pipeline, and expected commitments totalling \$1,600 million, seem to assure that this gap can be covered. Food aid pledges are sufficient to cover the estimated need for imports of 1.55 million tons of foodgrains, the equivalent of \$250 million. Smaller than last year because of the good harvest, these imports should permit further progress towards the Government's goal of one million tons of grain stock, provided crop results in FY79 are favorable. Commodity aid needs in FY79 are estimated at \$520 million, considerably higher than last year. Expected commitments of \$650 million will permit imports of this magnitude and also improve the pipeline for this type of aid. A further increase in total commodity commitments by some \$25-30 million may, however, be necessary to accommodate the import of an additional 150,000 tons of fertilizer. Project aid disbursements are forecast at \$325 million, over 25% more than last year, denoting the expectation of further progress in the implementation of aid-assisted projects. New projects ready for implementation necessitate commitments of about \$700 million, leaving a closing pipeline of \$1,835 million in the next year, the equivalent of about five years of disbursements. This ratio of closing pipeline to next year's disbursements would be consistent with a modest improvement in the speed of project implementation.

viii. At present, forecasts for the FY80 balance of payments are still tentative. It appears that the gap to be covered by aid disbursements will, at almost \$1,200 million, be about \$100 million bigger than the gap in the current year. Due to improvements expected to occur in the pipeline during FY79, new commitments are recommended for an amount of \$1,600 million, equal to the level of commitments in the current year.

xi. Food aid needs are expected to decline further to 1.3 million tons of grain, requiring only \$220 million of new commitments. The basis for this expectation is the forecast increase in domestic production; in view of unfavorable weather in FY79, food aid needs in FY80 may turn out to be higher, and the recommended amount would then have to be increased.

x. Commodity aid disbursements are estimated at \$580 million, about \$60 million more than in FY79. New commitments of \$650 million should permit this level of disbursements as well as keep the year end pipeline at almost the level of one year's disbursements, which appears desirable to assure a smooth flow of imports. The proposed increase in commodity aid should help to maintain the momentum of growth in the agriculture and manufacturing sectors.

xi. Project aid disbursements are likely to advance further to almost \$400 million. New commitments of \$720 million should permit this level of disbursements as well as keep the closing pipeline at the equivalent of five years of disbursements.

#### Development Issues

xii. Favorable economic progress in recent years cannot hide certain important facts concerning the economic development of Bangladesh: the

economic well-being of most people is still not satisfactory, favorable long-term economic trends are yet to be established, and planning has not yet been effective. As mentioned, moreover, inflation has re-emerged as a serious problem.

xiii. With a per capita income of about \$90, Bangladesh is still one of the poorest countries in the world. Life expectancy is short, child mortality high and human fertility remains largely unchecked. A large part of the adult population is illiterate, ill-fed, ill-housed and underemployed. Progress has been slower than in other low income countries; in fact, per capita incomes in Bangladesh declined by 0.4% a year during 1960-76, whereas they increased by 0.9% a year in the other low-income countries. In spite of last year's record rice crop, per capita rice production has yet to return to the FY70 level. Landlessness is on the increase; according to a recent survey, about half of the rural population is landless or virtually landless. After an increase in recent years, investment still amounts to only about 12-13% of GDP; for its financing the country depends critically on foreign aid which covers 75-80% of public investment.

xiv. Development planning has to become a more effective tool for change. The first Five-Year Plan targets for GDP, employment and investment growth were not clearly related to feasible proposals for action and projects necessary for their implementation. With insufficient manpower available for planning in the central planning agency as well as the technical ministries, the planning machinery was unable to fully guide implementation. Due to changing domestic and international factors actual events followed a course largely independent of the Plan, with the composition of the development budget often determined by aid availability rather than Plan priorities.

xv. Meanwhile the Government had moved to institute more pragmatic economic policies which favor monetary stability and incentive pricing for agriculture and provide more scope for the private industrial sector. These pragmatic policies can undoubtedly be credited with much of the progress since 1975. The Government also established a Project Implementation Bureau which eventually may help to speed up the slow pace of project implementation. Recognizing population control and rural development as top priorities, it set up a nationwide framework for family planning services and experimented with various types of rural development models.

xvi. Feeling the need for a more fundamental reorientation of policies, however, the Government put off the new Five-Year Plan by two years. The Two-Year Plan (FY79 and 80) is meant to clear the deck for future action -- by completing as many ongoing projects as possible or abandoning those that are uneconomic -- and to create time for thought about the long-term direction of development.

xvii. The Two-Year Plan (TYP) itself is, of course, unlikely to change the course of development, since its period is too short and most of the development budget during these two years (83%) is pre-empted by ongoing projects. The TYP's claim for progress to be made in these two years in

such fundamental areas as employment creation and population control is unlikely to be realized. Further, the TYP has not clearly indicated which uneconomic projects will be weeded out or what criteria will be used to make decisions about abandoning such projects during the remainder of the TYP period.

xviii. Nevertheless, the TYP period should be an extremely useful occasion to establish clear policies about fundamental development issues. The TYP draft document lists five important areas where the policy makers must make critical choices: the respective roles of the public and private sectors, the organization of agricultural producers, the goals of the national education policy, the role of subsidies in agricultural prices, and the respective roles of foreign aid and domestic savings in development financing. While outlining alternative solutions for these major problem areas, the document does not present a full analysis of the options. Moreover, it only raises the question of the creation of non-farm employment for those who can no longer be absorbed by agriculture; this problem is assuming increasing urgency and requires concentrated government attention. The Government has made the long-term issues of development the subject of public debate in Bangladesh and has invited the views of foreign and domestic scholars. The present report is also intended to make a modest contribution on some of the development issues.

xix. Consideration of these long-term issues should not diminish the Government's concern for the more immediate need to improve the link between plan formulation and implementation. The weakness of this connection was the main shortcoming of the first Five-Year Plan. Progress was hampered by inadequate preparation of projects and lack of appreciation at different levels of the new Government about who was to do what and when. In the implementation stage, government agencies often lacked the resources to make their contributions, and at times they worked at cross purposes with other agencies. Of late, there have been indications of a growing awareness of the need for close attention to the details of design and implementation and some agencies have been gearing up to cope better with their development task. But top level attention by the Planning Ministry as well as the individual technical ministries to the practical requirements of project design and project implementation remains a vital requirement for a successful development effort.

#### Issues in Rural Development

xx. In spite of the high fertility of its alluvial soils, the abundance of water resources and the extremely high ratio of cultivators to land, agricultural productivity is still very low in Bangladesh. Significant progress has been made, however, in recent years. The Government hopes to achieve grain self-sufficiency by 1985, and this should indeed be possible provided progress is made in a number of areas.

(1) Water resources need to be used more efficiently. Cropping intensity averages less than 150%, although climatic conditions would permit three crops a year in most areas. Groundwater development, especially by means of shallow tubewells, appears particularly attractive since it is relatively

inexpensive and fast and leads to effective on-field distribution of water to the participating farmers. Because of the high benefit-cost ratio and the small number of farmers involved it should, moreover, permit easy cost recovery. A large expansion in the irrigated area (from 2.7 million acres to 4-5 million in the Bank's tentative estimates) is needed to achieve grain self-sufficiency; to be effective, this expansion should be accompanied by stronger efforts to improve flood protection and drainage. Since the development of water resources has been slow in the past, a large additional effort is needed.

(2) Market prices have to be maintained at an incentive level. Last year the Government increased its procurement effort and established a procurement price which proved attractive to farmers. It also has been encouraging production through subsidizing fertilizer use. The key aspect of procurement policy, however, is that it needs to be operated flexibly as regards quantity and price. In this respect, it is not clear that the current procurement price, which has been kept unchanged from last year in spite of increases in the general price level, provides sufficient incentives to marginal farmers; this is a point which needs to be kept under review. The mission has provided a tentative framework for estimating what procurement price and volume are required to achieve a given target increase in output. It is recommended that calculations of this nature be carried out systematically by the Food Policy Unit which the Government intends to establish as a source of technical advice to the Ministerial Committee on Food. The model could also be used to help determine the effectiveness of procurement prices and fertilizer subsidy as two alternative means of encouraging production. Some observers feel that the fertilizer subsidy is more effective since its benefits are restricted to those who buy fertilizer and increase output, while a higher procurement price also benefits those who do not increase their output. A tentative solution of the mission's model suggests that the fertilizer subsidy might cost 150% more than the procurement policy in obtaining from farmers the same output increase; obviously, however, more analysis is needed to arrive at a firm view on this matter.

(3) The fact that much of the grain marketed in Bangladesh is sold at subsidized prices through the ration system creates a financial difficulty for the Government when operated simultaneously with a price incentive program for farmers. The rationale for the food subsidy lies largely in the danger of unexpected scarcity and exorbitant prices. The goal of price and supply stability can, however, also be achieved if the Government were to use the public grain stocks to intervene selectively in the retail market through open market operations, selling off public grain when the price is moving up towards a ceiling and purchasing grain when the market price approaches a pre-determined floor price. If supply stability is thus achieved, much of the rationale for extending subsidized grain to the general public would disappear; the ration could then be restricted to the poor, and the Government would be financially stronger to support the farmgate price. In the current year, the Government is embarking on open market operations on a limited scale; further build-up of grain stocks towards the Government's goal of one million tons will allow the Government to expand these operations and, thus, to rationalize the grain market. This requires both food aid and a sustained domestic procurement effort.

(4) On the basis of current price forecasts, jute production promises to be a financially and economically attractive alternative to rice production for at least the next two years. Beyond this, rice may become more attractive which would tend to reduce jute cultivation to the areas relatively unsuited for rice. Although Bangladesh provides a large part of the world's jute exports (about 75%), the scope for achieving further gains in export earnings by increasing the export price may be limited because of the elastic nature of world demand. According to tentative mission calculations, this is true for exports of both raw jute and jute goods. The scope for exploiting its comparative advantages in jute production, therefore, lies in improvements in technology and efficiency in cultivation and manufacturing.

(5) The problem of rural unemployment and underemployment requires urgent attention. Under the impact of the rapidly increasing number of rural households, the size of the average farm holding has continued to decline and holdings have become increasingly fragmented, often into 8 or 10 pieces of land. At the same time, increasing numbers have become landless or almost landless (owning less than 0.2 hectare). Although increases in investment and productivity in agriculture could lead to higher employment of labor per hectare, it is inconceivable that this sector can productively absorb a sizeable part of the oncoming cohorts of young farmers. Nor is it possible to assume that conventional forms of development in other sectors can provide employment to those who are redundant in agriculture. This enormous problem requires new solutions. An important part of the Government's energies in the TYP period should be devoted to devising labor-intensive construction of irrigation, drainage and flood control works; rural roads, bridges, schools, health clinics; cottage industries and possibly labor-intensive manufacturing for the export market. Most of these activities should be undertaken on a small scale using the people already present in the project area. This type of activity requires tight supervision both during design and implementation. This in turn requires much more detailed administrative attention than the Government has provided thus far; substantial numbers of government servants would need to be redeployed to work at the local level.

(6) In contrast to the great urgency of agricultural development and the priority accorded to it in government statements, the share of development resources directly allocated to agriculture has been on the decline. In the TYP, 25% of development expenditures is allocated to agriculture compared to 30% in the Hard Core Program of the first Five-Year Plan. An increasing part of the budgetary allocations is, moreover, absorbed by the fertilizer subsidy. Obviously, agricultural development requires action in many different areas, but it will not be possible to achieve accelerated agricultural growth without adequate budgetary allocations and an equitable distribution of funds among the several elements comprising the agricultural program.

#### Issues in Industrial Development

xxi. A high rate of agricultural growth is a necessary condition for industrial expansion which in turn will further economic development by catering to domestic needs, strengthening the trade balance and creating employment opportunities. Despite recent growth acceleration, however, industry has not

yet played a dynamic role in the development of Bangladesh. Over the longer run, growth has been virtually nil and the contribution of industry to GDP is only 13%, in comparison, for instance, with 19% on the average in other low income countries. The manufacturing sector still suffers from overcapacity and financial losses. Productivity of capital and labor, which rose markedly in the 1960s, plummeted during 1970-76. Setting industry on a growth path will require policy changes. Some comments follow on actions that appear needed in the public sector, the private sector and for the encouragement of industrial exports.

xxii. The public sector still dominates industry in Bangladesh: it accounts for 50% of value added in manufacturing, 85% of industrial investment allocations and 85% of industrial exports. Jute and textiles, the backbone of the country's industrial sector, are reserved for the public sector, and so is the sugar industry. Most of the larger import substitution industries -- steel, cement, fertilizer -- are also in public hands, although private investment in these areas is allowed in principle. The public sector has sustained heavy losses in every year since independence; particularly serious have been the losses of the jute industry. If proper allowance were made for capital depreciation, public sector losses would be even higher.

xxiii. There are several areas in which policies regarding the public sector appear to need improvement:

- (a) establishing clearly that the primary goal of public enterprises is the efficient production of the relevant goods and services. To the extent possible, they should be relieved from the burden of doubling as welfare agencies by being obliged to employ redundant staff or selling their output below cost because of social considerations;
- (b) increasing the autonomy of enterprises in day-to-day operations. The recent tendency is to allow managers more freedom to run their plant, but they are still unduly restricted in matters of personnel management and authority to purchase raw materials;
- (c) raising the salaries for scarce personnel, particularly managers, and making these more dependent on performance;
- (d) improving and expanding the training of skilled workers. The problem is particularly urgent in view of the increasing departure of personnel to the Middle East; and
- (e) rehabilitating poorly maintained or worn-out plant and equipment. Balancing and modernization programs are planned for jute, textiles and paper but are equally necessary for other industrial branches.

xxiv. In guiding the private sector, the Government should rely less on bureaucratic controls and more on the application of policy instruments. Industrial activity is stifled by cumbersome, frequently overlapping, procedures

for import and investment licensing. These controls tax the Government's scarce administrative talent (which could be far better used in rural development, education, population control, etc.), lead to arbitrary decisions and delays, and invite corruption. They are least of a hindrance to the well established businessman who knows his way, and most to the small or would-be entrepreneur. Some liberalization has taken place in the administration of controls, but there is much scope for a further reduction of their role in favor of policy instruments of general applicability -- such as tariffs, other tax instruments, and rules on repatriation of profits and capital involved in foreign investment.

xxv. Development of export industries is important to help boost industrial production, to reduce the enormous trade deficit and to provide additional employment opportunities to the work force. Besides the action currently undertaken to strengthen the jute industry, still the main export earner, measures are needed to increase exports of other products. These have shown encouraging growth in recent years but their contribution to exports and industrial production is minimal. The extremely low wage level in Bangladesh and the vast pool of underemployed should be a spur to the authorities to develop Bangladesh's comparative advantage in this area. This would require appropriate trade and pricing policies and, inter alia, strengthening the Export Promotion Bureau, providing a more welcoming attitude to foreign investors, providing duty drawbacks, and undertaking a coordinated, well focused program of studies of export possibilities.

#### Issues in Resource Mobilization

xxvi. The trend in domestic resource mobilization has not been favorable. Although revenue has been increasing quite rapidly, current expenditures have risen at the same pace and the current surplus has allowed the financing of only 20-25% of the development budget. If proper allowance is made for a number of expenditures now included in the development budget and the full amortization cost of the assets of public enterprises, the level of public sector savings has been minimal and sometimes negative.

xxvii. The lack of progress in the accumulation of savings has made an increase in development spending, and eventually in the growth rate of the economy, critically dependent on the ability of Bangladesh to attract increasing amounts of foreign aid. An unfavorable corollary is that an increasing proportion of the total funds available for development financing is preempted by foreign aided projects. Currently, 34% of the development budget consists of foreign aid disbursements to specific development projects. Since aid covers on average only half of total project cost, an equivalent amount of budgetary resources is required to provide the local counterpart to the financing of aid projects, and relatively few resources are left over to finance all the development activities which are not financed by foreign donors. As a result, the implementation of many projects, aided and non-aided, is hampered by insufficient or tardy allocation of domestic counterpart funds.

xxviii. This "Taka shortage" problem cannot be solved by shifting resources to aid financed projects since then the domestically financed projects would

suffer. The only long-run solution -- apart from the effect of the weeding out of uneconomic projects during the TYP -- lies in increasing the total amount of development resources. In view of the extremely low contribution of domestic resources to development financing, the main effort will have to be focussed on an improvement in the mobilization of domestic resources. Donors, however, could in the interim help alleviate the Taka shortage by providing higher proportions of total project cost, including funds to cover local expenditures (in some areas, the proportion of aid in project cost appears to be relatively low), and by continuing to provide a large proportion of their aid in the form of commodity assistance. But this would be justified only if the Government simultaneously undertook increased efforts to mobilize more domestic resources.

xxix. Fortunately, substantial increases in public savings would appear to be entirely feasible. The Bank's recent report on domestic resource mobilization roughly estimates that the Government should be able to increase public savings to 4% of GDP over the next five years. Assuming an unchanging proportion of aid to GDP and estimating domestic savings at 2-3% of GDP at present, this would allow raising development expenditures from 12-13% to 16-17% of GDP. The increase would result from measures to improve tax administration, rationalize and increase certain tax rates, improve the financial results of public enterprises, and diminish subsidies. An important condition, however, is that GDP would grow by at least 4% a year, i.e., well ahead of population. In view of the country's low per capita income, it would be very hard to envisage an increase in savings to occur at the expense of already depressed consumption levels.

xxx. Secondly, there is also an urgent need to review the allocation of resources available for public investment. Already, at the onset of the Two-Year Plan, the Government has made an attempt at reviewing priorities within the ADP by concentrating resources on projects with relatively short gestation periods, in the hope that a great number of them could be completed by the end of FY80, so that the next Five-Year Plan would be able to start with a reasonably clean slate. This was a wise decision. Nevertheless, there probably is scope for further pruning of projects in the pipeline. In this respect, the joint review by the Bank and the Government of the portfolio held by the Bangladesh Water Development Board (BWDB) is a good example of how priorities can be brought into focus. Other sectors might want to follow suit. But above all, it is necessary to begin with the definition of priorities for the next Five-Year Plan, not only within, but also between, sectors. In this context, it should be pointed out that despite rapidly increasing outlays on the fertilizer subsidy the share of agriculture in the ADP has declined in recent years. Once a number of short-gestation projects have been completed and a number of less promising projects eliminated from the pipeline, it should be possible to channel more funds into agriculture, a sector which -- despite its importance for widespread, grassroots development -- presently receives less than its due share in overall development expenditures. Increases in the allocations to education, health and population control also appear desirable.

## PART I

### CHAPTER 1: CURRENT DEVELOPMENTS AND PROSPECTS

#### A. Introduction

1.01 GDP increased in FY78 by 7.8% in real terms, following only 1.7% real growth in the preceding year. The main growth factors were a 12.8% increase in foodgrain output, an 11.5% increase in the jute crop and a 10.4% increase in the value added of manufacturing. Judging by the increase in development expenditures, government investment may have increased by 14% in real terms and private investment in all sectors including agriculture may have increased at approximately the same rate or perhaps more. The step-up in development expenditures and increased industrial production triggered a sharp increase in imports, which rose by 56% in value from the relatively low level of FY77. The increased level of spending in the economy, in the public as well as in the private sector, led to a resurgence of inflation in spite of the sharp increase in imports.

1.02 The growth in output would have been less satisfactory without the help of good weather. For the third year in a row, Bangladesh has been spared major droughts, floods or cyclones. The weather was particularly good last year and this helps explain the sharp improvement in agricultural output over the disappointing crop of the previous year; as compared with FY76, however, the rice crop increased at an annual rate of only 2%. Changes in government policies were also a factor. Farmers benefitted from a strengthened food-grain procurement and price support program and the increased availability of fertilizer, pumps, spare parts and credit. Industry was stimulated by the liberalization of imports, expeditious treatment of investment applications and more plentiful credit.

1.03 Economic advances have gone hand-in-hand with an improvement in political stability. President Ziaur Rahman's victories in the presidential election of June 1978 and the parliamentary election of February 1979 have led to an increase in confidence among key officials in the administration. The general opinion in official and business circles is that after the recent general elections, the Government will be able to take major decisions on important policy issues and implement programs that have been postponed or have suffered from neglect. The feeling that the increased political stability and the election victories constitute a mandate for reform and policy change has prompted the Government to ask for the advice of a number of economic advisers at home and abroad on long-term development perspectives and priorities. The period of the current Two-Year Plan (TYP) does, indeed, provide a critical opportunity to formulate positions on long-term policy issues and to make these the foundation for the next Five-Year Plan.

B. Agriculture

Foodgrains

1.04 Production in FY78 recovered fully from the sharp drop in the previous year. Good weather undoubtedly contributed to this; at the same time, the contribution made by modern inputs -- the application of which expanded due to favorable output/input price ratios and improved input supplies -- played an important role. Fertilizer consumption for both rice and jute cultivation was at a record level, and the use of lowlift pumps, shallow tubewells and deep tubewells increased markedly.

Table 1: FOODGRAIN PRODUCTION  
(million long tons)

	<u>FY70</u>	<u>FY76</u>	<u>FY77</u>	<u>FY78</u>
Aus rice	2.96	3.23	3.01	3.10
Aman rice	6.95	7.04	6.91	7.42
Boro rice	<u>1.90</u>	<u>2.29</u>	<u>1.65</u>	<u>2.47</u>
Rice, total	11.82	12.57	11.57	12.99
Wheat	<u>0.10</u>	<u>0.22</u>	<u>0.26</u>	<u>0.34</u>
Total production	11.92	12.78	11.83	13.33
Net production /a	10.73	11.50	10.65	12.00

/a Production less 10% for feed, seed and waste.

Source: Ministry of Agriculture.

1.05 Recent evidence indicates that many more farmers than can be satisfied with the available supplies would like to buy fertilizer at the prevailing rate of return for rice. This may be partly explained by the subsidy on fertilizer -- about 50% on the average of the cost of supply per unit -- although actual prices paid by farmers, according to most sources, are far higher than the subsidized prices. Whatever the effect of the subsidy, it appears clear that demand for fertilizer has also been boosted by the other promotional efforts -- distribution of demonstration kits, liberal provision of credit and greater involvement of the extension service. Combined with the favorable paddy price and good weather, these factors led to a fertilizer offtake of 711,000 tons in FY78 -- 40% more than in FY77. Projected sales in FY79 are 800,000 tons, although some sources expect a much higher effective demand. Combined with an estimated need for year-end stocks of about 350,000 tons, the projected sales of 800,000 tons imply that 1,000,000 tons of domestic production and imports are required beyond the year's opening stocks of about 150,000 tons. Confirmed imports as of

November 1978 for FY79 of about 600,000 tons, together with expected domestic production of about 250,000 tons, combine for an additional availability of 850,000 tons. This implies that there is still a gap of about 150,000 tons. Consultations between the Government and donors are under way about additional supplies to fill this gap, although it is unclear at this stage whether such supplies could arrive in time to benefit the FY79 crops. Meanwhile, the envisaged increase in sales has its consequences for the government budget. Although fertilizer sales prices have been raised by about 16% on average in FY79, the total subsidy is expected to increase -- due to increases in both quantity and unit costs. It is important to continue to review this financial constraint to a greater supply of fertilizer and to consider alternative measures to maintain production incentives (see Chapter 3, Section D). Perhaps the fertilizer subsidy ought to be limited to the temporary promotion of more balanced fertilizer use (potassium and phosphates).

1.06 A promising feature of recent trends in foodgrain production has been the increasing share of wheat. Wheat requires only about 33% as much water as rice and its production costs are lower. New varieties are fertilizer responsive and have a much shorter maturing period than boro rice. Farmers' response to the Government's seed distribution and extension efforts has been favorable, reflected by an increase in acreage sown to wheat from 400,000 acres in FY77 to 470,000 acres in FY78.

1.07 Through its Tk 100 crore Credit Program, the Government disbursed about Tk 60 crores in FY78 and intends to make available through the nationalized banks a maximum additional amount of Tk 150 crores up to the end of FY79. Officials believe that the liberal provision of short-term credit did indeed stimulate the increased application of modern agricultural inputs. The impact of this crash program on the extension program and the credit system was, however, not altogether favorable. The repayment rate on loans in FY78 was only 57%. As usual for such programs, the small farmers demonstrated a better repayment record, but did not get a large share of credit outlays. Besides endangering the development of a disciplined agricultural credit system, the low repayment rate adds to the current inflationary pressures. The recent opening of more branch offices of banks in rural areas is aimed at improving the access of small farmers to agricultural credit. Parallel efforts by the banking system and the agricultural administration are aimed at improving the repayment record.

1.08 To stimulate input demand, the Government in FY78 procured 550,000 tons of rice (compared to 316,000 tons in FY77) at Tk 132/maund. The expanded level of procurement, in the face of a 13% increase in foodgrain output, helped prevent sharp post-harvest declines in prices. The same procurement price will be effective in FY79 on the presumption that it continues to be an incentive price; in view of the increase in the general price level, however, it may be useful to keep this matter under review (paras. 3.25, 3.26).

#### Jute

1.09 The trend of declining jute output was reversed in FY77, and in FY78 production reached 5.4 million bales. The key to continued improvements

in the future is the acreage that can be devoted to the Intensive Jute Cultivation Scheme (IJCS). IJCS acreage, estimated to be about 500,000 acres in FY78, is claimed to have increased to almost one million acres in the current season.

Table 2: PRODUCTION, EXPORTS AND STOCKS OF RAW JUTE  
(million bales)

	<u>FY70</u>	<u>FY76</u>	<u>FY77</u>	<u>FY78</u>	<u>FY79</u> (projection)
Carryover Stocks	0.8	1.9	1.0	0.3	0.6
Production	<u>7.2</u>	<u>4.3</u>	<u>4.8</u>	<u>5.4</u>	<u>6.0</u>
Total Availability	8.0	6.2	5.8	5.7	6.6
Mills' Consumption <u>/a</u>	3.6	2.6	2.9	3.1	3.3
Exports	3.5	2.4	2.3	1.7	2.3
Growers' Consumption and Losses	0.2	0.2	0.3	0.3	0.3
End Season Stocks	0.7	1.0	0.3	0.6	0.7

/a Includes changes in stocks.

Source: Government of Bangladesh and mission projections.

1.10 The developments of FY78 highlight some of the problems and prospects for jute. Induced by the favorable output price in the previous year, farmers increased the jute acreage by 13% in FY78 and the IJCS acreage by 70%. The average yield, however, actually declined, partly due to adverse weather. Consequently, output in FY78 increased to only 5.4 million bales, 12.5% more than in FY77 (see Table 2). Thus, although a reversal of the earlier trend of declining jute acreage continued in FY78, output remained well below historic levels.

1.11 In spite of the increase in output the domestic jute price rose to unprecedented levels in FY78 -- 40% more than in FY77. The sharp increase in jute demand was primarily due to low opening stocks (300,000 bales in FY78 compared to 1.0 million bales in FY77), liberal credit available to mills early in the season, and heavy demand from shippers to meet previously contracted sales. The high domestic price of raw jute and weaknesses in the jute purchasing system contributed to a worsening of the profitability of jute manufacturing -- despite a considerable increase in the export price of jute goods.

1.12 In the face of the high overall demand for raw jute relative to supply the export price in FY78 increased by about 11%, but failed to bid jute away from the domestic jute manufacturing sector. Raw jute exports actually declined to 1.67 million bales -- 27% less than in FY77 -- causing a 22%

decline in earnings. At the same time, exports of jute manufactures reached 522,000 tons -- 15% more than in FY77 -- leading to a 25% increase in export earnings. The combined earnings from exports of raw jute and jute goods increased by 7% from \$323 million to \$345 million.

### C. Public Finance, Money and Prices

#### Developments in FY78

1.13 The acceleration of economic growth in FY78, combined with the sharp increase in imports and persistent international as well as domestic inflation, brought about a marked increase in tax revenue, particularly from customs duties. At Tk 9.8 billion, total tax revenue 1/ exceeded the budget forecast by 7% and stood 29% above the level recorded in FY77. The revenues from customs duties and sales taxes -- both levied mainly on imports -- increased by 37% and 44%, respectively. Non-tax revenue increased by only 12%, however.

1.14 The higher than anticipated level of government revenue was, however, more than offset by a rapid expansion in current expenditures, following the implementation of a new national pay scale 2/ and an increase in teacher salaries. Consequently, the surplus on current account, 3/ which had been budgeted at Tk 2.7 billion, reached only Tk 2.1 billion, somewhat in excess of the level attained in FY77, both in absolute terms and as a percentage of GDP. Despite the shortfall in the current surplus, the Government was able to raise

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1/ The definition of "tax revenue" used in this report, as in previous Bank reports on Bangladesh, is slightly more comprehensive than the one used in the budget and includes stamp revenue.

2/ In July 1977, pending the official promulgation of revised pay scales, interim relief was granted to all categories of civil servants. The extent of this relief varied among grades, but amounted to roughly 15-20% on average. For government civil servants proper, this increase in salaries was made permanent and, in most cases, further increased to an average of 20-25% through a number of decisions taken between December 1977 and May 1978. For employees of public sector corporations, the final announcement of pay scales was made in October 1978. The announcement of new pay scales in the banking sector is still pending.

3/ This surplus on current account should, however, not be equated with government savings. As pointed out in previous Bank reports, the surplus on current account is overestimated because the "food subsidy" included in current expenditures is intended to cover the losses on food purchases out of the Government's own resources only, whereas the losses incurred on food aid are netted out from the estimated value of food aid receipts. Furthermore, some of the items included in the ADP, particularly the fertilizer subsidy, are more of a recurrent than of a capital nature. If adjustments were made for these factors, government savings would, in fact, be negative.

its spending on the Annual Development Program (ADP) from Tk 11.9 billion, as envisaged in the budget, to an anticipated level of Tk 12.5 billion. Additional finance was provided through increased foreign aid disbursements and recourse to deficit financing (Tk 0.9 billion). 1/ This is the first time in the country's history that such an upward revision in the size of the ADP has taken place. Because of the start of new projects and gathering momentum on ongoing projects, the increase in the size of the ADP did little to alleviate the shortage of domestic funds ("Taka shortage") which is hampering the implementation of virtually every development project (see Chapter 5).

1.15 The expansionary thrust implied in this increased public spending, combined with a rapid expansion in credit to the public sector corporations and the private sector, led to a 21% overall increase in liquidity which was almost as high as the 24% increase in liquidity registered during FY77. Prices had begun to rise from the beginning of FY77 onwards, but because this rise came in the wake of a significant fall in prices during the preceding year, the average price level in FY77 was only 1% above the price level in FY76. In FY78, however, the average price increase amounted to 15%.

#### Prospects for FY79

1.16 The resurgence of inflationary pressures last year, following a period which had witnessed price declines or stability, is one of the most disquieting aspects of current economic developments and a cause of concern to the Government. In response to this new situation, the authorities have drawn up a budget for FY79 which aims at keeping the government accounts in balance, while at the same time providing for a sizeable expansion in ADP expenditure. It is, therefore, particularly ambitious with regard to the generation of public savings. Current revenue is expected to go up by 10.6% if new fiscal measures are disregarded, and by 13% if account is taken of additional resource mobilization through higher railway fares and freight rates and increased rates for a range of other taxes and fees. The bulk of the increase in revenue from existing taxes is to be derived from increased customs and sales tax revenue. Exclusive of the higher rail fares and freight charges, non-tax revenue is anticipated to remain practically the same as in FY78.

1.17 Strict control is to be exercised with respect to the increase in recurrent expenditure which is to be kept to only 2%. In fact, outlays on three important components are expected to fall: (i) the food subsidy from Tk 1.1 billion to Tk 0.7 billion because of a sharp reduction in food imports financed out of government resources; (ii) the jute subsidy from Tk 0.6 billion to Tk 0.4 billion because of the expected improvement in the relationship between the price of raw jute and the price of jute goods; and (iii) spending for some expenditures for law and order by Tk 0.2 billion. However, even after making allowance for these three items, all other current expenditures are still budgeted to rise by only 6%.

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1/ Although actual spending on the ADP, at Tk 12.3 billion, was slightly lower than the revised estimate, the actual size of the FY78 budgetary deficit has turned out to be Tk 1.1 billion.

Table 3: GOVERNMENT REVENUE AND EXPENDITURE

	(Taka billion)					Percent of GDP <sup>/a</sup>				
	<u>FY76</u>	<u>FY77</u>	<u>FY78</u>	<u>FY79</u>	<u>FY79</u>	<u>FY76</u>	<u>FY77</u>	<u>FY78</u>	<u>FY79</u>	<u>FY79</u>
		(revised)	(TYP)	(Budget)		(revised)	(TYP)	(Budget)		
Current Revenue	8.8	10.0	12.4	14.0	14.1	8.9	10.6	11.3	11.2	11.3
of which:										
Tax Revenue	(6.7)	(7.6)	(9.8)	(10.4)	(11.3)	(6.8)	(8.1)	(8.9)	(8.4)	(9.1)
Current Expenditure	6.8	8.2	10.4	10.8	10.5	6.9	8.7	9.4	8.7	8.5
Current Surplus	2.0	1.7	2.1	3.2	3.5	2.0	1.9	1.9	2.6	2.8
Development Expenditure	8.5	10.4	12.5	14.1	14.5	8.6	11.1	11.4	11.3	11.6
Overall Deficit	6.5	8.6	10.4	10.9	10.9	6.6	9.2	9.5	8.8	8.8
Financed by:										
Capital Receipts (net)	0.3	0.4	0.3	0.2	-0.3	0.3	0.4	0.3	0.1	-0.2
Deficit Financing	1.0	-	0.9	0.2	-	1.0	-	0.8	0.1	.
Foreign Aid	5.2	8.2	9.2	10.5	11.2	5.3	8.7	8.4	8.4	9.0
GDP, in current market prices <sup>/a</sup> (million Taka)	98.94	93.96	110.09	124.39	124.39	100.0	100.0	100.0	100.0	100.0

<sup>/a</sup> GDP figures are Planning Commission estimates.

. = Less than Taka 5 million.

Note: Minor discrepancies are due to rounding.

Source: Ministry of Finance, Planning Commission and Bank estimates.

1.18 On the basis of these assumptions regarding receipts and expenditures, the FY79 budget forecasts a boost in the current surplus from Tk 2.1 billion in FY78 to Tk 3.5 billion. This would raise the ratio of current surplus to GDP to 2.8%, as compared to only 1.9% in FY78, and would be in consonance with the domestic resource availability projections included in the Draft TYP. Together with an anticipated foreign resource inflow amounting to Tk 11.2 billion, this surplus would permit the financing of Tk 14.5 billion of ADP expenditures without recourse to deficit financing. 1/

1.19 However, various factors will make it difficult to achieve this envisaged balance in the Government's accounts. First, the modest 6% rate of increase in the "residual" current outlays mentioned above would be out of line with the rates of increase registered in past years and would even remain below the annual 12% increase in current spending allowed for in the Two-Year Plan (TYP) projections. It would require extreme restraint on the part of the ministries with regard to new current commitments. Secondly, the transfer of surpluses from public corporations -- budgeted to remain at the level achieved last year -- may well turn out to be considerably smaller, given the financial implications of the new pay scales for employees of public sector corporations. 2/ Thirdly, the fertilizer subsidy included in the ADP is expected to be considerably larger than anticipated in the budget. 3/ Since available fertilizer supplies have been insufficient to cover all of the demand, it appears difficult to justify the heavy strain which the present subsidy level puts on the budget. By most accounts, farmers usually have to pay the market price rather than the subsidized price, the margin benefitting the middleman rather than the farmer. Although foreign aid resources will probably be larger than originally projected, this increased resource availability is unlikely to compensate for the factors listed above, and unless

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1/ Deficit financing is defined as Government recourse to the banking system. Other domestic resources are provided through borrowing from non-financial institutions, such as provident funds. In FY78, these net capital receipts are expected to be negative because of an anticipated investment by the Government in the share capital of a number of corporations with a view to improving their capital structure.

2/ The additional financial burden on that account in FY79 has been tentatively estimated at Tk 0.6 billion.

3/ In accordance with the TYP, this year's ADP includes an allowance of Tk 0.7 billion for the fertilizer subsidy. Because of a sharp increase in the world market price of fertilizer, however, the subsidy per ton of imported fertilizer has increased from Tk 1,930 in FY78 to an expected Tk 2,160 in FY79 -- despite the fact that fertilizer prices were raised by about 16% in the beginning of the year. If fertilizer sales this year were to be on target (800,000 tons), the subsidy would total nearly Tk 1.5 billion. Even at the lower level of last year's sales (710,000 tons), the subsidy would still amount to Tk 1.3 billion, or Tk 0.6 billion more than anticipated in the budget. Part of this amount serves to cover the losses of the domestic fertilizer industry.

the ADP is cut -- which would be highly undesirable -- some amount of deficit financing may be unavoidable.

1.20 In this case it would become extremely difficult to keep the expansion in monetary liquidity within the targeted ceiling of 11%, especially since the expanded program of special agricultural credit, the stepped-up foodgrain procurement program and the increased needs of the private sector will all be fueling monetary expansion as well. In the first three months of the current fiscal year, liquidity and domestic credit both expanded by 5%. Given the seasonal character of credit needs, this rate of expansion remained within the monetary program, but only due to a temporary contraction of credit to the Government. In anticipation of future expansionary movements, the monetary authorities have tightened up the commercial banks' refinancing facilities. Extreme caution will, however, have to be exercised in order to ensure that these contractionary policies do not adversely affect productive investment programs in both the public and the private sectors.

#### D. The External Sector

##### Trends in FY78

1.21 The expansion in economic activity in FY78 was directly related to developments in the balance of payments: larger imports were needed to meet the demands for consumption arising out of higher incomes, and a greater volume of raw material, spare parts and capital goods imports permitted higher capacity utilization in industry. Expansion in development spending also contributed to increased demand for capital goods imports. As a result, imports rose by \$484 million or 56% over the level of FY77, reaching \$1,349 million. Exports also increased, from \$460 million to \$497 million. The resulting trade gap of \$852 million was more than double the gap of the previous year.

1.22 Economic expansion in FY78 was also accompanied and aided by a relaxation of import restrictions and liberalization of some classes of imports by placing them on "Open General License." Food imports were increased, despite good harvests, because of the desire to build up grain reserves to ensure greater food security. These imports have been mainly accommodated through a high level of food aid disbursements. Larger imports of fertilizer were stimulated as a result of a rapid increase in fertilizer use, combined with some decline in domestic production resulting from breakdowns in the two fertilizer plants.

1.23 The increase in export earnings in FY78 represented a continuation of a trend that began with the devaluation of the Taka in May 1975. The rate of increase in FY78 was well above that of FY77, however, due primarily to a 16% increase in Bangladesh's export prices, especially of traditional exports such as tea and jute. On the other hand, the favorable price effect was partly offset by a 27% reduction in the volume of raw jute exports. Although output of raw jute had recovered in recent years, increased consumption by the jute mills (whose production and exports increased) and the need

to replenish depleted stocks prevented an increase in exports of raw jute. Jute goods exports were buoyant, reflecting shortages of jute and other fibers in international markets and the trend for increased substitution of jute for synthetics on environmental grounds. The growth in non-traditional exports was moderate as a result of restrictions to ensure domestic availability of a number of products such as fruits and vegetables, lower external demand for items like shrimp and fish, and a temporary tax on exports of wet-blue semi-finished leather and raw hides and skins to encourage domestic processing.

1.24 The Government continued to provide a wide array of export incentives in FY78. For traditional products, such as raw jute and tea, continued attention was given to incentive prices at the producer level, technical packages to improve productivity, and plant modernization. The program for cost control and waste reduction in jute manufacturing was pursued vigorously. The subsidy for jute was restructured to favor those mills that exported their products by granting them a bonus of approximately 16% of the average unit value of their exports. Non-traditional exports continued to receive the benefit of Export Performance Licenses which grant exporters the title to import a specified range of imports. Export financing also continued to benefit from preferential rates of interest.

1.25 The trade deficit of \$852 million was augmented by a deficit of \$17 million on services account. Private transfers from Bangladeshi nationals working abroad continued to rise to a level of \$83 million. The current account deficit, therefore, amounted to \$786 million which -- together with the servicing of medium- and long-term debt -- led to a financing deficit of \$821 million. Almost all of this deficit was financed by external aid inflows of nearly \$800 million.

#### The Balance of Payments, FY79 and FY80

1.26 Exports. The demand for Bangladesh's export products is likely to show continued strength. Bangladesh could benefit from such an improved climate since jute production -- both of raw jute and manufactures -- is expected to rise further in the current year. International demand for Bangladesh fish and fish products, which was depressed in FY78, is expected to strengthen and exports could rise significantly if Bangladesh improves its ability to compete on the basis of price and quality.

1.27 Exports for FY79 and FY80 are currently projected at \$613 million and \$671 million, respectively, mainly as a result of an improvement in the volume and price of jute exports. Export projections by commodity are shown in Table 4 below. Non-jute exports are estimated to grow by 18% and 16% in value, respectively, in the two years. Tea exports are expected to decline from current levels because of the effects of replanting and modernization of tea estates, which may temporarily reduce exportable quantities, combined with some decline in international tea prices. The income from non-traditional exports (fish, shrimps, leather, etc.) is expected to increase.

1.28 Jute will continue to dominate Bangladesh's exports over the coming two years, constituting 70% of total export value. Domestic prices of raw

jute have been sufficiently high in relation to rice prices in FY78, so that the area sown to jute in FY79 is expected to be about 2 million acres. With a continued favorable relative price for the crop, the acreage should not decline in FY80. The IJCS acreage is expected to increase further in the next two years, leading to higher average jute yields. If weather conditions are normal over the next two years, raw jute output could reach 6.5 million bales or more annually. Bangladesh could then export up to 2.5 million bales of raw jute annually over the period, given the expected low level of kenaf output in Thailand and depleted international stocks. An increase in the average export price of raw jute is expected in FY79 and export earnings of \$150 million could be realized this year. Improvements in the supply of raw jute, increased efficiency in jute manufacturing and continued recovery in the industrialized countries should all be conducive to slightly higher volume and prices of jute goods exports. Total jute exports are likely to average almost \$450 million per year during the two years. This represents a substantial increase over the annual average of \$316 million during the period of the first Five-Year Plan.

1.29 Imports. Bangladesh's import requirements have been projected at \$1,719 million in FY79 and \$1,860 million in FY80, representing annual increases of 27% and 8%, respectively (see Table 5).

1.30 Foodgrain imports depend on the level of domestic production, minimum consumption requirements of the population, and the Government's foodgrain stock target. Foodgrain imports are estimated by the Government to be 1.55 million tons for FY79 and 1.3 million for FY80, on the basis of the following assumptions:

- (a) 4.1% growth annually in foodgrain output;
- (b) 2.7% annual growth in population;
- (c) average per capita consumption of 15.5 oz per day; and
- (d) additions to official stocks bringing their level to 1 million tons by the end of June 1980.

1.31 The expected rise in fertilizer imports is a consequence of the planned increase in distribution to 800,000 tons in FY79 and 900,000 tons in FY80 and the intention to raise the stock level to 400,000 tons from the level of 155,000 tons at the end of FY78. The Government expects that these levels of fertilizer supply will help achieve its target of an annual increase of 4.1% in foodgrain output during the plan period.

#### Terms of Trade

1.32 In FY78, Bangladesh again benefited from a decline in the international prices of a few key commodity imports. There were sharp declines in foodgrain, raw cotton and yarn prices, only partly offset by the small increases in the prices of edible oils, petroleum products, fertilizer, cement and capital goods. This situation is expected to be reversed: average import

prices are projected to increase by roughly 10% annually over the two-year period. Export prices are expected to increase at a much lower rate and the terms of trade, which had improved by 22% in FY78, could deteriorate by 5% in FY79 and a further 4% in FY80.

#### The Payments Gap, FY79 and FY80

1.33 The anticipated balance of payments situation for FY79 may be summarized as follows. Merchandise exports are expected to rise in value to \$613 million, or by 23%, while commodity imports are projected to increase by 27% to \$1,719 million because of the continuing expansion of economic activity. The trade deficit of \$1,106 million will be partially offset by an estimated inflow of \$98 million in private transfers, primarily consisting of higher remittances from Bangladeshi nationals employed abroad. The current account deficit is likely to include also a net outflow on services account of \$25 million and would amount to \$1,033 million -- or \$247 million more than in FY78. The amortization of medium- and long-term debt is projected to total roughly \$50 million <sup>1/</sup>. Repurchases at the IMF are expected to amount to \$40 million, but the net settlement may be less if Bangladesh enters into a new Standby Agreement. The allocation of \$21 million of new SDRs, finally, would still leave an unfinanced gap of about \$1,095 million to be financed from external aid disbursements. Bangladesh's holdings of international reserves, then, are expected to remain at the level of \$269 million -- sufficient to cover about two months of merchandise imports.

1.34 In FY80, the second year of the Two-Year Plan, exports are expected to rise further to \$671 million as a result of a continued strengthening of international demand for traditional and non-traditional export products and improved domestic supply. Imports are also expected to continue to grow, reaching \$1,860 million. While this reflects some increase in volume as a result of changes in the size and structure of investment, it also takes account of expected increases in import prices for food and raw materials. The trade deficit is projected at \$1,189 million, moderated by a surplus of \$80 million on invisibles (primarily due to anticipated migrants' remittances of \$110 million). In addition to the current account deficit of \$1,109 million there is likely to be a further net outflow of \$108 million for the amortization of medium- and long-term debt and short-term capital, resulting in an overall financing deficit of about \$1,195 million.

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<sup>1/</sup> It might be less if debt relief arrangements were to take effect during FY79.

Table 4: MERCHANDISE EXPORTS  
(million US\$)

	<u>Unit</u>	<u>FY78</u>			<u>FY79</u>			<u>FY80</u>		
		<u>Quantity</u> <u>(million)</u>	<u>Unit Price</u> <u>(US\$)</u>	<u>Value</u>	<u>Quantity</u> <u>(million)</u>	<u>Unit Price</u> <u>(US\$)</u>	<u>Value</u>	<u>Quantity</u> <u>(million)</u>	<u>Unit Price</u> <u>(US\$)</u>	<u>Value</u>
		<u>-----Estimated Actuals-----</u>			<u>-----Projections-----</u>			<u>-----Projections-----</u>		
Raw Jute	Bales	1.67	57.5	97	2.30	65.0	150	2.60	65.0	169
Jute Goods	Tons	0.522	475.0	248	0.540	525.0	284	0.560	525.0	294
Tea	Lbs.	63.00	0.72	45	60.00	0.66	39	60.00	0.65	39
Leather		-	-	46	-	-	47	-	-	57
Fish and Shrimp		-	-	21	-	-	40	-	-	50
Others		-	-	40	-	-	53	-	-	62
<b>Total</b>				<u>497</u>			<u>613</u>			<u>671</u>

Source: Planning Commission and Bank estimates.

Table 5: MERCHANDISE IMPORTS  
(Values in million US\$)

		FY78			FY79			FY80		
		Quantity (Million)	Unit Price (US\$)	Value (US\$mil.)	Quantity (Million)	Unit Price (US\$)	Value (US\$mil.)	Quantity (Million)	Unit Price (US\$)	Value (US\$mil.)
		-----Estimated Actuals-----			-----Projections-----			-----Projections-----		
Foodgrains	Tons	1.64	144	236	1.55	172	267 <sup>/a</sup>	1.30	181	236 <sup>/a</sup>
(Rice)	Tons	(.30)	(229)	(69)	(.05)	(260)	(13)	(.03)	(357)	(11)
(Wheat)	Tons	(1.34)	(125)	(167)	(1.50)	(169)	(254)	(1.27)	(177)	(225)
Edible Oil	Tons	0.071	683	49	0.075	750	56	0.100	750	75
Oil Seeds	Tons	0.047	333	16	0.015	310	5	0.060	310	19
Petroleum Products	Tons	0.323	126	41	0.300	138	41	0.330	145	48
Crude Petroleum	Tons	1.155	108	125	1.200	112	134	1.250	119	148
Cotton	Bales	0.154	301	46	0.174	371	65	0.300	333	100
Man-made Fibre	Bales	0.079	264	21	0.054	273	15	0.060	273	16
Cotton Yarn	Bales	0.036	552	20	0.048	542	26	0.025	560	14
Textiles	-	-	-	21	-	-	20	-	-	18
Fertilizer	Tons	0.418	172	72	0.765	225	172	0.720	210	151
Cement	Tons	0.392	50	20	0.750	59	44	0.850	62	53
Capital Goods	-	-	-	318	-	-	375	-	-	462
Other Raw Materials	-	-	-	280	-	-	342	-	-	360
Other Consumer Goods	-	-	-	84	-	-	157	-	-	160
<b>Total</b>				<u>1,349</u>			<u>1,719</u>			<u>1,860</u>

<sup>/a</sup> Includes \$20 million of estimated freight costs.

Source: Planning Commission and Bank estimates.

Table 6: BALANCE OF PAYMENTS  
(million US\$)

	FY78 (Estimated Actuals)	FY79 (Projections)	FY80 (Projections)
Merchandise Imports (c.i.f.)	-1,349	-1,719	-1,860
Merchandise Exports (f.o.b.)	497	613	671
Trade Balance	-852	-1,106	-1,189
Services (net)	-17	-25	-30
Private Transfers	83	98	110
Current Account Balance	-786	-1,033	-1,109
Amortization of Medium- and Long-Term Debt	-35	-50	-50
Short-Term Capital Movements (net), incl. Transactions with the IMF	19	-33	-58
Allocations of SDRs	-	21	22
Errors and Omissions	-19	-	-
Changes in Reserves (- = increase)	24	-	-
External Capital Disbursements	797	1,095	1,195
of which: Food	(190)	(250)	(220)
Commodity	(352)	(520)	(580)
Project	(255)	(325)	(395)

Source: Planning Commission and Bank estimates.

#### Aid Requirements

1.35 The discussion in this section relates to the aid commitments and disbursements in FY79 and FY80. Obviously, project aid committed during these two years will for the most part be disbursed only during the early 1980s and it is necessary, therefore, to consider what aid needs are likely to exist at that time. Even with a good domestic savings performance, aid will continue to be required in the early 1980s to finance a large portion of total investment. According to tentative calculations, aid would continue to amount to approximately 10% of GDP (which is roughly the same proportion as prevails at present). Aid would then finance about 60% of investment, the increase in national savings being the main factor permitting an increase in overall investment. Since domestic savings cannot be expected to grow very fast, much of the aid should remain in the form of counterpart generating aid, i.e., commodity and perhaps food aid. The recommendation in this section is, therefore, for a continued relatively modest share of project aid commitments in total aid, maintaining the project aid pipeline at about the same ratio to project aid disbursements (slightly less than 5:1) as has prevailed in recent years. A corresponding increase in total project aid commitments (and decline in counterpart fund generating aid) would be indicated, however, if donors were to increase the proportion to be financed of each project's total cost.

1.36 Aid commitments during FY79 are expected to total \$1,600 million, an increase of roughly \$500 million over the commitments received in FY78. Some of this aid is expected to help strengthen the pipeline at the beginning

of FY80. This (and the expectations about increased domestic food production) suggests that the recommended commitment level for FY80 can be maintained at \$1,600 million. This level would help maintain aid disbursements at the present ratio to GDP. Such a stable ratio was part of the scenario for domestic resource mobilization suggested in an earlier Bank report. <sup>1/</sup>

1.37 Food Aid. Government stocks of foodgrains recovered from a very low level in early FY78 to over 600,000 tons at the beginning of FY79. This was still lower than the stock level reached two years earlier and falls short of the Government's aim of bringing stocks to a level of one million tons. In FY78, the offtake of foodgrains was 1.85 million tons. If crops in FY79 and FY80 are good, requirements for public distribution of grains might decline to 1.8 million tons annually. Additions to stocks totalling about 300,000 tons for the two years should enable Bangladesh to start its new Five-Year Plan with nearly a million tons of stocks. The imports necessary to achieve these targets show a declining trend to 1.55 million tons in FY79 and to 1.3 million in FY80. Food aid disbursements of \$250 million and \$220 million for FY79 and FY80, respectively, should be sufficient to cover these import needs.

Table 7: PROCUREMENT, DISTRIBUTION AND STOCKS OF FOODGRAINS  
(thousand long tons)

	<u>FY76</u>	<u>FY77</u>	<u>FY78</u>	<u>FY79</u> (Projected)	<u>FY80</u>
Opening Balance	746	823	376	627	877
Imports	1,412	810	1,644	1,550	1,300
Local Procurement	415	316	550	600	650
Available for Public Distribution	<u>2,573</u>	<u>1,949</u>	<u>2,570</u>	<u>2,777</u>	<u>2,827</u>
Total Distribution	1,676	1,473	1,850	1,800	1,800
Losses	<u>74</u>	<u>100</u>	<u>93</u>	<u>100</u>	<u>100</u>
Closing Balance	823	376	627	877	927

Source: Planning Commission and Bank estimates.

1.38 Commodity Aid. Commodity aid disbursements are expected to amount to \$520 million in FY79 and \$580 million in FY80. These levels are in line with the projected rates of growth of GDP and imports over the Two-Year Plan period (FY79-80). In addition, they should facilitate the pursuit of the program of import liberalization which began in the current year. The marked increase in the level of disbursement in FY79 (compared with the previous year when it was \$350 million) derives from increases in import prices of several key commodities and from the need to increase the availability of certain raw materials and intermediate goods. Fertilizer imports, for

<sup>1/</sup> Bangladesh: Report on Domestic Financial Resource Mobilization,  
IBRD Report No. 1919-BD; April 26, 1978.

example, are projected to rise from 418,000 tons in FY78 to 765,000 tons in FY79, and cement imports are projected to double to 750,000 tons. To ensure the recommended level of disbursements, the pipeline at the beginning of each year should be roughly equivalent to projected disbursements for the year. Commitments of commodity aid in FY80, therefore, should again be about \$650 million.

1.39 Project Aid. Project aid disbursements in FY79 and FY80 are projected at \$325 million and \$395 million, respectively, corresponding to a projected increase in the investment ratio from 12.2% of GDP in FY78 to an average of 14.8% of GDP for the TYP period. Most of the investments in the TYP period will derive from the existing pipeline of projects, although some new projects of a quick-yielding nature may be added. In order to sustain such a level of investment, a stream of aidworthy projects must continue to be built up for implementation. It is desirable that the project aid pipeline should continue to be equivalent to between 4 and 5 years of disbursements. This would imply new commitments of project aid totalling \$720 million for FY80.

Table 8: PROJECTED AID COMMITMENTS AND DISBURSEMENTS  
(million US\$)

	<u>Food</u>	<u>Commodity (incl. cash)</u>	<u>Project</u>	<u>Total</u>
<u>FY78 (Actuals)</u>				
Opening Pipeline	79	361	1,109	1,549
New Commitments	140	414	606	1,160
Total Available	219	775	1,715	2,709
Disbursements	190	352	255	797
Closing Pipeline	29	423	1,460	1,912
<u>FY79 (Projections)</u>				
New Commitments	250	650	700	1,600
Total Available	279	1,073	2,160	3,512
Disbursements	250	520	325	1,095
Closing Pipeline	29	553	1,835	2,417
<u>FY80 (Projections)</u>				
New Commitments	220	650	720	1,590
Total Available	249	1,203	2,555	4,007
Disbursements	220	580	395	1,195
Closing Pipeline	29	623	2,160	2,812

Source: Planning Commission and Bank estimates.

PART II

CHAPTER 2: MANAGEMENT OF THE OVERALL DEVELOPMENT EFFORT

2.01 The progress achieved in recent years should not, and cannot, hide the fact that at the completion of its first Five-Year Plan (FY74-78) Bangladesh still has to create the momentum for sustained rapid growth. In the 1960s and the first half of the 1970s, Bangladesh dropped significantly behind the rate of economic growth achieved in other low-income countries <sup>1/</sup> which, in turn, was far below the performance achieved by better-off countries. Between 1960 and 1976, per capita GDP of the low-income countries increased by 0.9% per year, whereas it fell by 0.4% per year in Bangladesh. The stagnation of the Bangladesh economy during this period is shown by the virtual lack of change in the sectoral composition of GDP. The contribution of agriculture to GDP declined only from 61% to 59%, whereas it dropped from 52% to 45% in the low-income countries group. Another indication of the economy's lack of dynamism is the low level of energy consumption per capita (expressed in kilograms of hard coal equivalent) which amounted to only 28 kg, compared to 52 kg for the low-income group as a whole.

2.02 The first Five-Year Plan aimed at overcoming the physical damage caused by the war of independence and setting the economy on a rapid growth path. The plan aimed at a GDP growth rate of 5.5% a year, an investment rate of 13% of GDP, and an increase in domestic resource mobilization which would have permitted a reduction in foreign aid to only 27% of total investments. These targets have not been achieved. GDP growth averaged only 4.0%, investment in real terms amounted to only half the target, and the proportion of foreign aid in investment financing actually increased to about 80% of the total.

2.03 There is also evidence that economic stagnation has been accompanied by a deterioration in income distribution. The crushing pressure of population growth, crop failures and farmers' indebtedness have led to diminishing farm size and an increasing number of landless people. According to a 1977 survey, <sup>2/</sup> the average size of farm holdings (including tenanted land) amounted to just under 1 hectare. Significantly, an estimated 82% of rural households own less than the average holding, and 49% are landless or near-landless (owning less than 0.2 ha). Tenancy provides some additional land to cultivators, but only 20% of all tenanted land is farmed by those who have no land of their own. The major part is farmed by those who have some land themselves, on average 0.7 ha. Generally it seems, therefore, that tenanted land is not available for the landless. With the large number of young

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<sup>1/</sup> Low-income countries are those with 1976 per capita GNP of US\$250 or below (34 countries). The definition and subsequent data on these countries are from the Bank's World Development Report, August 1978.

<sup>2/</sup> F.T. Jannuzi and J.T. Peach, Report on the Hierarchy of Interests in Land in Bangladesh, US AID, Washington, September 1977.

households being formed every year -- 45% of the population is below 15 years of age -- fragmentation of holdings and landlessness continue to increase at a rapid rate. Although little is known about the sources of income of the landless, it is generally recognized that landlessness and poverty are closely related. One striking demonstration is the high correlation found in Companigonj Thana between landlessness and mortality. Crude death rates and child mortality both dramatically increased with declining landholding and were extremely high for the landless.

2.04 In the second half of the first Five-Year Plan period, several factors emerged which induced the Government to delay the beginning of a new Five-Year Plan by two years. A new, more pragmatic policy orientation had been taking place since 1975, but it required further articulation to be developed into a consistent whole. In addition, planners increasingly felt the need for political decisions on a number of fundamental options in order to be able to chart the longer-term course of economic development. Finally, in order to make leeway for a new development course, there was the need to finish up ongoing projects, several of them initiated in pre-independence days, and simultaneously to weed out uneconomic projects. It was decided, thus, that a Two-Year Plan should be formulated for FY79 and FY80 as an approach to the second Five-Year Plan which in turn would start in July 1980.

2.05 The new orientation in economic policies arose after the confusion of the immediate post-war period was overcome and most of the infrastructure damage had been repaired. At the same time, the political situation was becoming more stable. A more pragmatic view than in the earliest days of independence arose regarding the nation's economic predicaments. The Government recognized that reduction of population growth was a first priority goal. A national population policy was formulated and a skeleton network of family planning services established throughout the country. At the same time, the Government recognized the link between poverty and lack of opportunity for productivity increases. Top priority was to be given to stepping up food production. Growers' incentives were strengthened by increased availability of fertilizer, improved seeds, irrigation water and credit, as well as by higher procurement prices and more efficient procurement procedures. In industry, enterprises were aided by more liberal allocations of import quotas and credit and more rapid approval of investment licenses. A small number of the many enterprises nationalized at the time of Bangladesh's independence were transferred back to the private sector. Efforts were made to put public enterprises on a commercial footing. The implementation of the public investment program, although still slow, has benefited from more concentrated attention from the top level of Government. In the monetary field, the Government attempted to adjust the value of the Taka to international price movements by a 58% devaluation in May 1975. The devaluation was followed by the implementation of a package of monetary and fiscal measures which, until recently, kept domestic inflation below the level of world inflation and increased slightly, but significantly, the rate of domestic resource mobilization from its extremely low level in the first years after independence. 1/

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1/ Public savings had been negligible or even negative.

2.06 The common denominator of these policies has been the somewhat more pragmatic approach taken toward the country's economic problems. The final impact of these policies on economic development and growth is still not fully clear, although it is obvious that the acceleration in growth in the last three years, and particularly in FY78, has been due not merely to the impact of favorable weather for agriculture but also to efforts to improve the economic conditions and incentives for production. It is too early, however, to assess the impact on economic performance of the new policy direction and, in any event, further measures will have to be formulated and implemented to arrive at a consistent framework for rational resource allocation. The Government has cited the need to review the results of its efforts to introduce more pragmatic economic policies, to streamline its economic administration, to improve private sector incentives and to gain more experience with various models of rural development as one set of reasons why it decided to defer the formulation of a new Five-Year Plan by two years.

2.07 A further rationale for delaying the formulation of the new Five-Year Plan is the need for a proper orientation of the planners concerning a number of fundamental policy issues which will determine the longer-term course of development. "Pragmatism", in the words of the Two-Year Plan, "can be a philosophy for action for the short-term only; long-term planning must be based on national convictions on important issues which can emerge only through the political process." <sup>1/</sup> The planners believe that the conditions have become ripe for such a political process, and it is certainly true that a succession of good harvests and increased political stability have created the first breathing space since independence for an investigation and debate on fundamental political choices. The planners suggest five major policy areas in which fundamental decisions will be required:

- (i) The respective role of the public and private sectors.  
Should certain industries remain reserved for the public sector? Should the public sector be guided by rate of return considerations alone? What scope exists for public-private cooperation in the form of joint ventures?
- (ii) The pattern of agricultural land ownership and operation.  
Options range from redistribution of land to the landless and near-landless to various forms of voluntary or compulsory cooperation in farming.
- (iii) The prices received by farmers and charged to consumers.  
Decisions will affect incentives to produce, the situation of (urban) consumers, and the Government's financial situation.
- (iv) The role of education. What emphasis is to be given to universal primary education, improved technical/vocational training, and (costly) higher education?

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<sup>1/</sup> Draft Two-Year Plan, p. 291.

- (v) The role of foreign aid and domestic resources in financing development. What contribution can be made by the agriculture sector, incremental incomes arising from development activities, restrictions on luxury consumption? Is there scope for increasing grant assistance to reduce future debt servicing?

2.08 The Two-Year Plan sets the stage for a discussion of each of these problem areas by outlining alternative solutions, but does not provide a full discussion of the options. There are, moreover, a number of other, very practical questions which also appear to have an urgent claim on the policy makers' attention: how far does the Government intend to go in the liberalization of the economy; what measures does it intend to take to create off-farm employment in rural areas; and what steps does it envisage taking to make planning more effective than before?

2.09 First, regarding liberalization, it should be pointed out that despite moves towards pragmatism the Government still tries to exercise detailed control over many aspects of economic life. Various restrictions, often overlapping, apply to the size and scope of private investment, access to raw materials, competition from public enterprises and availability of credit. These restrictions lead to delays in production and investment, inefficiency in resource allocation and, frequently, abuse and corruption. They also take a heavy toll of the country's very scarce administrative talent which could be put to far better use in the implementation of development projects, particularly in the rural areas.

2.10 Second, the creation of off-farm employment in rural areas is a problem rapidly gaining in urgency. No conceivable rate of progress in agriculture will be able to absorb the large number of young people joining the labor force every year. The number of people who have to move out of agriculture, and of those about to become redundant in future years, is so large that it is also impossible to foresee that a major part of them can readily be absorbed by conventional development in other sectors. At the same time, however, there is an urgent need to provide rural areas with improved infrastructure, particularly at the village level, and there should, therefore, be considerable scope for employing additional labor in the construction and maintenance of irrigation, flood control and drainage works and of rural roads, bridges, markets, storage silos, schools, health posts, etc. There should also be scope for the promotion of small-scale and cottage industries in rural areas. Activities of this nature could absorb some of the redundant labor and in the process give further impetus to rural development. This will require imaginative action, but above all persistent and diligent attention during implementation to keep the enterprise going and to prevent the rot which, after initial success, tends to attack this type of effort and lead to the usual frustration. Examples of the few countries that have been successful in rural development (e.g., China, Taiwan and Korea) show that government officials have diligently and persistently worked with local people to assure the success of rural development activities.

2.11 Finally, on a broader front, it appears necessary to redirect the country's administrative talent toward the implementation of development

programs. This is a necessary condition for making the next Five-Year Plan more effective than the first one. Development services of all descriptions have suffered from a lack of manpower at the working level. There is no doubt that a much larger proportion of government servants should be involved at the working level in strengthening extension institutions, local administration of rural development projects, etc. The main pitfall to be avoided in gearing up for the next plan is to present a well-written document, but to provide inadequate administrative attention to resources at the working level for its implementation.

2.12 The Government has endeavored to make the preparation of the new Five-Year Plan the subject of public discussion, and this has already led to useful comments by Bangladeshi and foreign observers. Several studies completed in recent years by the Government, Bangladeshi institutions, aid donors, and the Bank should help to orient further public consideration of major development issues. Among these are studies on rural development, land distribution, food policy, jute and textile manufacturing, industrial policy, educational and manpower problems, domestic resource mobilization as well as macro-modelling exercises. These and other studies should enable the planners to set out in some detail the options which are available to policy makers. The absence of a review of these matters in the (Draft) Two-Year Plan document itself need not mean that the opportunity provided by the breathing spell has been lost. However, the time available is extremely short; it may be asked, therefore, whether the planners are acting according to a coordinated timetable to obtain answers from the policy makers to the questions which they posed in the TYP's final chapter and whether they will, indeed, have the time to present an analysis of the policy options.

2.13 Information provided in the (Draft) Two-Year Plan and estimates of the Planning Commission suggest the following macro-economic framework:

Table 9: MACRO-ECONOMIC TARGETS OF THE TWO-YEAR PLAN

	First Five-Year Plan (.....in % of GDP.....)	FY78 of GDP.....)	Draft Two-Year Plan (.....in % of GDP.....)
Investment	10.5	12.2	14.8
Public	8.9	10.5	12.4
Private	1.6	1.7	2.4
Domestic savings	2.1	0.4	3.9
Foreign Aid Inflow	8.4	10.9	10.9
GDP growth rate (real terms)	4.0	7.8	5.7

Source: Two-Year Plan (Draft) and Bank estimates.

GDP growth in real terms is forecast by the planners at 5.7% per year. Investment is to rise moderately from 10.5% of GDP in the First Plan and 12.2% in FY78 to 14.8% in the TYP, while the domestic savings rate is to rise from 2.1% of GDP in the First Plan and an estimated 0.4% in FY78 to 3.9% in the

TYP. The increase in domestic savings should allow a modest decline in the share of foreign aid in investment financing, from 80% in the First Plan to 74% in the TYP. The goal for GDP growth -- and with it the achievement of the other targets -- may prove to be overly ambitious, since it comes on top of the high growth rate achieved in FY78. Even with an excellent performance of the agricultural sector, weather conditions for agriculture would have to be extremely favorable for two more years to achieve the goal for GDP growth. In a weather-dependent agricultural economy such as that of Bangladesh it is very hard to achieve an unbroken series of three years of rapid agricultural growth and five without one significant off-year. If the GDP growth rate falls short of expectations, it may also be difficult to achieve the target for domestic resource mobilization.

2.14 The planned sectoral allocation of development expenditures during the TYP is summarized in the following table; data for the first Five-Year Plan (FFYP) and the Hardcore Program are given for comparison.

Table 10: SECTORAL ALLOCATION OF DEVELOPMENT OUTLAYS  
(in percent)

	FFYP <u>(FY74-78)</u>	Hardcore Program <u>(FY76-78)</u>	TYP <u>(FY79-80)</u>
Agriculture	26	30	25
Industry	19	20	22
Power and Natural Resources	13	15	12
Transport and Communications	16	17	18
Physical Planning and Housing	8	6	10
Education	8	5	5
Health	6	3	3
Family Planning	2	2	3
Other	<u>2</u>	<u>1</u>	<u>2</u>
Total	<u>100</u>	<u>100</u>	<u>100</u>

Source: Two-Year Plan (Draft).

2.15 The major point to note about this sectoral allocation is that it differs sharply from the priorities accorded to each sector in various statements on the Government's development objectives. In spite of the avowed priority of agriculture, the share of agriculture (25%) is lower than in the FFYP (26%) and in the Hardcore Program (30%). The rapid increase in the fertilizer subsidy, which is included in the development expenditures for agriculture, further diminishes the share actually available for investment in agriculture. Even more striking are the low shares allotted to education (5%), health (3.6%) and population control (3.0%). These low amounts are to some extent explained, of course, by the weight of ongoing projects in the Two-Year Plan. One of the purposes of the TYP is to "clear the deck" for longer-term development action by completing as many projects as possible and abandoning those that lack or have lost economic justification. The latter

category includes a number of projects initiated during pre-independence days which have been kept alive from year to year by small budgetary allocations. As can be expected in any development program in any two-year period, the bulk of public investment consists of expenditures on ongoing projects. The planners have only limited leeway to adjust the course of development to new economic priorities through the implementation of the TYP.

2.16 Statements regarding the elimination of uneconomic projects might, nevertheless, have led to the expectation of a somewhat lower weight for ongoing projects than the 83% which is to be devoted to them. The TYP does not indicate which projects have indeed been weeded out and what their aggregate investment value has been. Neither does it indicate what criteria have been used or are to be used in determining whether a project should be abandoned. It would be useful if the planners were to state clearly what has been happening in regard to the evaluation of ongoing projects and how they intend to handle this subject in the remainder of the TYP period.

2.17 The limited scope for change during the TYP draws into doubt its goals for structural improvements. The Plan aims at employment creation equivalent to the number of new entrants to the labor force (estimated at 1.8 million during the two-year period) and even at some alleviation of existing underemployment and unemployment. This is a promise which cannot be fulfilled. In the otherwise candid evaluation of the results of the first Five-Year plan, the TYP omits a discussion about the achievements in respect of that Plan's employment goals, which also had been to absorb all new entrants to the labor force. By all indications, however, unemployment has been increasing in the last five years. The number of landless and near-landless in rural areas has been rising sharply, and industry and other sectors of the economy have been unable to absorb more than a fraction of those who are underemployed in the agriculture sector. The only sector which has been booming in terms of employment is public administration, and even here the employment increase, about 0.3 million, has been only a fraction of the 4.4 million increase in the overall labor force during the five-year period. Although agriculture and industry have been starting to grow faster, no structural changes have been made in the design of development projects or in the relative price of labor which would lead to a greatly increased employment elasticity. Nor are any such changes about to be introduced on a sufficiently wide scale and there is, thus, no possible way in which the TYP's employment objective can be achieved.

2.18 Similar observations must be made regarding the TYP target for population control, i.e., reducing the birth rate from 40 to 37 per thousand. Although the national population program is developing momentum, here, too, probably more is expected than can be achieved in a short period of time. The main point to be made is that the TYP period should be utilized not so much to try to achieve goals which are only achievable through long-term action, but rather to determine what steps must be taken to formulate a long-term program. The following chapters, on agriculture, industry, and resource mobilization, attempt to make a modest contribution in helping to determine which policies appear most conducive to long-term development in Bangladesh.

CHAPTER 3: ISSUES IN AGRICULTURAL DEVELOPMENT

A. Introduction

3.01 Agricultural productivity in Bangladesh is among the lowest in the world. Although most of the arable land is under cultivation, only half of it is double-cropped. Rice, which occupies three-fourths of the cropped area, yields slightly over half a ton per acre, which is about 50% of Asia's average.

3.02 Agriculture in Bangladesh -- including crop production, fisheries, livestock and forestry -- contributes roughly 57% to GDP. Fisheries, livestock and forestry together account for about 20% of the value of agricultural production. The contribution of these three activities to GDP has been virtually stagnant during the 1970s. Crop production -- by far the most important agricultural activity -- also failed to show any significant progress. Production of the major agricultural crops in FY78 was about 7.3% higher in real terms than in FY70. Improvements have been made in the production of foodgrains -- the most important item in crop production -- but these have been partly offset by the decline in the output of jute, the second most important crop.

Table 11: PRODUCTION OF SELECTED AGRICULTURAL CROPS

	<u>FY70</u>	<u>FY76</u>	<u>FY78</u>	<u>FY70-78</u>	<u>FY76-78</u>
	(million tons)			(annual growth in %)	
Rice	11.82	12.56	12.99	1.2	1.7
Wheat	0.10	0.22	0.34	16.2	26.1
Sugarcane	7.42	5.89	6.67	-1.4	6.4
Jute	1.28	0.77	0.96	-3.7	11.8
Potato	0.86	0.89	0.85	-0.1	-2.3
Pulses	0.29	0.22	0.23	-3.0	2.2
Edible Oil Seeds	0.29	0.24	0.24	-2.5	0.0
Tobacco	0.04	0.04	0.05	2.3	5.5
Tea	0.03	0.03	0.03	1.3	6.7

Source: Bangladesh Bureau of Statistics.

3.03 The disappointing overall trend in agricultural growth, however, hides some significant factors. Agricultural output, like that of the rest of the economy, plunged in the early years following independence. It took three years to overcome the dislocation of the agricultural economy and of the supporting services and to catch up with the output levels prevailing before independence. The stage was then set for further advances, which is borne out by the growth rates shown in Table 11 for the period FY76-78. They show a substantial improvement in the production increase of all crops except potatoes. Foodgrain production, particularly wheat, reached a record level

during FY78. Since FY76 was itself a year of high agricultural production, the relative improvement in growth performance is even somewhat better than expressed by the growth rates in the last column of Table 11.

## B. Planning Goals

3.04 Among the objectives of the Two-Year Plan prime emphasis is given to the development of agriculture. The Plan aims at a 4.1% annual rate of growth in agriculture in FY79 and FY80 and lays heavy emphasis on crop production. The targets for rice and wheat are for annual increases of, respectively, 3.7% and 10.9% over their record levels in FY78.

3.05 While these target growth rates imply a considerable shift from historic trends, they draw some support from the favorable performance of recent years. Looking ahead, the achievement of such growth rates, at least in food production, has high economic and social priority. According to the Ministry of Agriculture, the nation will require nearly 20 million tons of foodgrains from domestic production to feed a projected population of 101 million in FY85 and also to permit about 1.5 million tons of exports. The achievement of this target, however, requires a 6% annual growth rate over the FY78 level. Although such a growth rate has actually been achieved over the period FY75-78 and the potential for further growth is considerable, it would be unrealistic to forecast a sustained increase at this rate, even if strong efforts were made to raise agricultural production.

3.06 An alternative set of projections (presented in Table 12) indicates a lower requirement of growth in foodgrain production through 1984/85. Using the IBRD population projection and the GOB per capita daily foodgrain requirement of 15.5 oz, and assuming zero to a million tons of imports, a gross production requirement of 16.5-17.6 million tons is implied for 1984/85, requiring 3%-4% annual growth over the 1977/78 level. (The irrigation requirements for this growth scenario are discussed in Section C of this chapter.) Although tentative explorations by the Bank provide support for the feasibility of achieving these growth rates, it should be pointed out that they are very high compared to the growth rates of 1.9% between 1960-74 and 1.5% between 1969-78. To reach the higher growth rates will require excellent planning, great determination in the implementation stage, and good weather.

Table 12: FOODGRAIN REQUIREMENT ESTIMATES  
(million tons)

	<u>FY70</u>	<u>FY75</u>	<u>FY78</u>	<u>FY80</u> (Mission projections)	<u>FY85</u> (Mission projections)
Population (millions) /a	70.8	78.2	85.0	89.6	101.4
Food Requirement	11.2	12.3	13.4	14.1	16.0
Imports	1.6	2.3	1.6	1.3	1.0-0.0
Stock Change	-	-0.5	0.2	0.2	0.0
Required Gross Production	10.7	10.6	13.3	14.3	16.5-17.6
Required Net Production /b	9.6	9.5	12.1	12.8	15.0-16.0
				<u>FY78-FY80</u>	<u>FY78-FY85</u>
Annual Growth in Production	..	..	..	3.3%	3.0%-4.0%

/a Statistical Appendix, Table 1.1

/b Allowing 10% for seed, feed and waste.

Source: Ministry of Planning and Bank estimates.

3.07 The rapid increase of wheat cultivation in recent years is one of the most promising developments in Bangladesh. Wheat has quickly found acceptance as a staple food, not only in the cities where it is a large part of grain sold through the ration system, but also in rural areas. The potential for further growth is considerable. Making allowance for the overlapping acreage requirements in the aus and aman season and of non-cereal crops, at least 3 million acres are suitable for wheat cultivation. Constraints are the still novel nature of the crop for many farmers who have to solve the problem of fitting wheat into their established cropping pattern, the availability of seeds and fertilizer, and the prevention of waterlogging of irrigated fields. Success in recent years in overcoming these constraints suggests that further rapid growth of wheat cultivation should be feasible.

3.08 For the next two years, the TYP presents an opportunity to consolidate the progress made in agriculture and lay the foundation for sustained growth. The Plan document, while presenting various output and input targets, does not adequately explain the assumed input-output relationships, nor does it clearly relate the various actions and investments proposed in the agricultural sector to the goals that have been set out. A serious handicap for decision making is the lack of an adequate and reliable data base that would make planning possible. Work is in progress at the Bureau of Statistics on an Agricultural Census; the results of a pilot survey covering 42 thanas have already been published. Much more information on production relations, farm budgets, prices and on supporting programs will need to be gathered if agricultural planning is to be effective; establishing a skeleton framework of reliable economic statistics should be an essential feature of the development efforts in the agriculture sector in the TYP period.

3.09 Achievement of the TYP targets is predicated on the strengthening of programs to elicit suitable farmers' response. This chapter will review some policy issues of relevance for achieving more rapid growth in the production of foodgrains and jute. In planning for the achievement of the medium-term targets beyond FY80, however, the economic, technical and institutional feasibility of longer-term growth strategies also need to be considered. The GOB is considering the preparation of a National Agricultural Production Plan extending beyond 1985. Interest in such a plan was stimulated by the agricultural sector review carried out jointly by the Consultative Group on Food Production and Investment (CGFPI), UNDP and FAO in April 1977. A follow-up mission in October-December 1977 by FAO and UNDP further examined the constraints on food production. The Government recently indicated that it is prepared to support such a planning exercise and agreed tentatively with the Bank to carry out a joint medium-term planning exercise for agricultural production.

3.10 Achievement of the Plan's targets for agriculture also requires sufficient financial resources, primarily a sufficient allocation for agricultural activities in the Annual Development Program (ADP). Although there is scope for improving efficiency in the use of a given allocation in agriculture -- for instance, through more effective programs to improve water management, through liberalization of inputs distribution and better coordination between the agencies concerned with agricultural and rural development -- the achievement of a higher growth rate in agriculture also calls for higher ADP allocations. The Ministry of Agriculture estimates that to achieve the output targets for FY80, the last year of the TYP, fertilizer use will need to increase by about 60% above the FY78 level. Similarly, total irrigated acreage will need to increase by about 35%. To achieve these and other input targets, the Ministry estimates the need for a total outlay of Tk 10,940 million during the TYP period. The proposed allocation for the Ministry of Agriculture, however, amounts to only Tk 4,250 million. Although the TYP, in addition, proposes allocations of Tk 3,250 million and Tk 1,480 million, respectively, for the Ministries of Water Resources and Rural Institutions, which are also involved in agricultural activities, these funds would not fully cover the needs described by the Ministry of Agriculture.

3.11 Whether the Ministry's estimates are reasonable or not, the ADP allocations for agriculture seem inadequate to accomplish the stated objectives of accelerated growth in agriculture. Although the allocations to agriculture have increased rapidly in current prices, they increased by only 6% a year in real terms over the low FY74 level. <sup>1/</sup> This is lower than the rate of increase which prevailed for all development expenditures. The percentage of development expenditures allocated to agricultural activities declined from about 34% in FY73 to 29% in FY78 and will drop further to 25% in the TYP. The share of agriculture -- excluding Water Resources and Rural Institutions -- has remained around 12%. Furthermore, over the years an increasing portion of this ADP allocation has had to be used to finance the subsidies on fertilizer and pesticides. The subsidy component, estimated

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<sup>1/</sup> Using the deflator implicit in Table 1.6 of the Draft TYP, p. 10.

at 18% of the ADP outlays for agriculture in FY73, rose to 40% by FY76. With sharp increases projected in fertilizer offtakes, these subsidies (at current rates) will represent the primary claim on the ADP allocations for agriculture -- which, in turn, implies inadequate allocations to intensify key supporting services which are already hampered by the lack of funds.

### C. Irrigation Requirements

3.12 Growth of foodgrain output can be achieved through a variety of input combinations, utilizing HYV seeds, improved local seeds, fertilizer, irrigation and flood control. Analyses made thus far of the prospects for output growth agree on the important contribution that should be made by increased irrigation and better water control. At present, 22 million acres, or almost all of the arable land, is being cultivated. According to available statistical evidence, which admittedly is not totally reliable, only 1.34 million acres are triple-cropped and 8.4 million acres double-cropped. This implies substantial potential for cultivating additional crops, particularly in the dry season (November-March) through the provision of irrigation. Herein lies the main prospect for increasing agricultural production in Bangladesh. Increased irrigation will permit both an increase in cropping intensity and an increase of modern inputs leading to higher yields.

3.13 The contribution which irrigation can make to output increases is well documented. For the shallow tubewells project in Northwest Bangladesh, which IDA is helping to finance, it was estimated, for example, that in the project area of approximately 150,000 acres (associated with 10,000 shallow tubewells) foodgrain production would increase by about 150,000 tons (117%). The project envisions a threefold increase in fertilizer use, a twofold increase in the application of pesticides and a tenfold increase in the utilization of HYV seeds. It also envisions an increase in cropping intensity from 144% to 176%. The projected increases in foodgrain yields to 1 ton per acre (117%) and in cropping intensity (22%) indicate the significant impact of irrigation and associated inputs on crop production.

3.14 Flooding causes damage to crops and property at an estimated annual cost of Tk 650 million. About 14 million acres out of the 15 million acres subject to floods are now cultivated. Given the high risk in these areas, farmers minimize their potential losses by growing low-yielding varieties and reducing the use of other inputs in these areas. The provision of flood protection and drainage for such areas will be generally required if there is to be a significant increase in cropping intensity and planting of HYVs. However, the economics of flood protection in Bangladesh need careful assessment in particular circumstances to determine the priority of flood protection and drainage for flooded areas. Although it is recognized that production from HYV aus and aman will require flood protection and drainage, the discussion below will be confined to irrigation requirements.

3.15 Meeting the FY85 production targets mentioned above will require large increases in irrigated acreage. The Ministry of Agriculture estimates

that achievement of its 20 million ton target will require an increase from 2.7 million acres irrigated in FY76 to 4.8-5.5 million acres in FY85. Tentative calculations by the Bank tend to suggest that achievement of its more modest output target of 16.5-17.6 million tons would require an increase in the irrigated area to 3.7-5.3 million acres. These calculations, therefore, indicate a range of 3.7-5.5 million acres of irrigation required to meet the alternative production targets by FY85.

3.16 The Government is faced with a major challenge. Irrigation is the main avenue to agricultural growth and foodgrain self-sufficiency, by allowing increased cropping intensity and guaranteeing higher yields. But past development has been slow (only some 400,000 acres were newly irrigated during FY71-76) and most of the increase in production in recent years has probably come from increased fertilizer use. A large increase in efforts will be needed to achieve even the more modest targets underlying the Bank's growth projections.

3.17 One reason for the low growth rate of irrigated acreage in the past has been the emphasis laid historically on flood control rather than irrigation. Bangladesh, situated in the delta of three mighty rivers -- Ganges, Brahmaputra and Meghna -- is subject to frequent flooding. Combined discharges from the rivers sometimes exceed 5 million cusecs, destroying life, property and crops. Given the immensity of the threat of floods, the Bangladesh Water Development Board (BWDB), one of the principal agencies dealing with water -- relying on the 1964 IECO Master Plan for Water and Power Resources Development in East Pakistan -- directed most of its efforts at flood control in the major systems, with irrigation introduced at a later stage. The Government, in the first Five-Year Plan, allocated 53% of its investment for water development in the ADP to large-scale projects of the BWDB, but these schemes have produced only 9% of the irrigation development. 1/

3.18 While flood control continues to be needed, the requirements of food production have assumed increasing importance in recent years. Given the need to meet the food needs of a large and rapidly growing population, the GOB has begun to shift its major objectives in water development from flood control to irrigation for foodgrain production.

3.19 In designing its irrigation strategy, the Government will have substantial leeway to choose between several types of irrigation systems: gravity schemes and low-lift pumps (LLP), which use the water of the country's rivers, and deep tubewells (DTW), shallow tubewells (STW) and handpumps (HP), which use the groundwater resources abundant almost everywhere. The relative role of these different irrigation systems in serving the irrigated acreage in FY76 is shown below. 2/

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1/ Selected Policy Issues in Agriculture (Bangladesh), FAO/UNDP Mission, Dacca, April 15, 1977, p. 6.

2/ Source: FAO/UNDP Working Paper on Irrigation Policy, Dacca, April 1977, p. 7.

<u>Type of System</u>	<u>Acreage Covered</u>	
	<u>Acres</u>	<u>% of Total</u>
Gravity	110,000	4.0
LLP	1,430,661	52.6
DTW	152,142	5.6
STW	7,678	0.3
HP	20,000	0.7
Traditional	<u>1,000,000</u>	<u>36.8</u>
Total	2,720,481	100.0

In addition, the Bangladesh Water Development Board reports that approximately 3.3 million acres are protected by flood damage control and drainage facilities. It appears, however, that this figure represents the total surface of completed schemes rather than the area under effective control, since much of the coastal embankment is at present not effective in preventing flood damage.

3.20 The irrigation strategy will eventually have to be determined in the light of considerations of costs, reliability throughout the year, maintenance and cost recovery problems, as well as technical and organizational problems arising in conveying the water to the farmers' fields. It is almost certain, however, that the strategy will have to lay increased emphasis on the use of groundwater. Calculations by the Ministry of Agriculture indicate an increase from about 7% of total irrigated acreage by groundwater in FY76 to 37% in FY86. Bank calculations also indicate the need for a sharp increase.

3.21 Relatively cost-efficient irrigation devices increasingly demanded by farmers are shallow tubewells. In an earlier Bank report, <sup>1/</sup> it has been estimated that the cost of irrigating one acre of paddy by shallow tubewells is Tk 660; the comparable figures for low-lift pumps, deep tubewells and major gravity schemes are, respectively, Tk 415, Tk 880 and Tk 1,300. <sup>2/</sup> The organization of farmer groups to use shallow tubewells is relatively easy, since the tubewell typically has a command area of only about 6 acres. An additional favorable factor is that the tubewells are sold to farmers at cost, although operation and maintenance are subsidized. Consequently, the subsidy for this type of scheme is only about 25% of the cost per unit, compared to the present subsidies of about 50% on low-lift pumps, 75% on deep tubewells and almost 100% on the major gravity schemes.

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<sup>1/</sup> Bangladesh: Irrigation Water Charges, IBRD Report No. 1963-BD; March 6, 1978.

<sup>2/</sup> Although low-lift pumps show a lower cost, physical conditions appear to put a constraint on the maximum number that can be employed -- 20% more than the number currently in use, according to one estimate. This could be a limiting factor on any major push for introducing more low-lift pumps in the absence of complimentary investments such as double pumping.

3.22 Given these favorable features of shallow tubewells, a number of studies have recommended a sharp increase in their use, ranging from 11% in the Bank's estimates to 37% in working papers prepared by FAO/UNDP. It would appear to be a matter of high priority, therefore, to plan for a sizeable increase in the supply of shallow tubewells.

3.23 The overall implications of future irrigation requirements are spelled out in the draft report of the joint GOB/World Bank review of the BWDB. <sup>1/</sup> This report envisages a greatly expanded role for both the BWDB and the Bangladesh Agricultural Development Corporation (BADC), the two principal agencies dealing with water. It is envisioned that the BWDB, which provided 110,000 acres of irrigation in FY76, will need to install systems during the next six years (through FY85) to irrigate a total area in the range of 350,000 to 1,240,000 acres. The BADC, on the other hand will need to supply irrigation for some 2,380,000 to 3,250,000 acres, compared to about 1,610,000 acres of irrigation supplied in FY76. Efforts to reach these targets should not, however, diminish the emphasis to be placed on making better use of existing BADC irrigation facilities.

#### D. Procurement Policy

3.24 The Government has used two principal tools to provide farmers with financial incentives to increase their output: the procurement price for rice and wheat, and subsidies on inputs like fertilizers and irrigation. Both are meant to induce farmers to adopt modern technology to increase their output. Thus far, there has been no serious attempt to compare the cost effectiveness of the two methods.

3.25 The procurement price seems to be very effective in the case of small and marginal farmers <sup>2/</sup> whom it helps to protect against the risk of a sharp post-harvest decline in prices when they are financially unable to hold on to their stock. According to scattered evidence, they are adopting modern technology in response to the incentive price. Therefore, even if the incentive price in any year is well above the cost of production on the average, the procurement price level should be reviewed every year in order to ensure the desired response in terms of increased output from the marginal farmers in the face of inflation (an estimated 15% in the current year). Last year's procurement price of Tk 132/maund for rice still may be higher than the

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<sup>1/</sup> Bangladesh: Report of Joint Government of Bangladesh/World Bank Review of the Bangladesh Water Development Board (Draft), IBRD Report No. 2327-BD; January 16, 1979.

<sup>2/</sup> The increase in marketed surplus of the small farmers may even be larger in percentage terms than that of the big farmers to the extent that the former are likely to increase output and reduce self-consumption in response to procurement price increases.

average cost of production of the majority of farmers, so that incentives for investment for them may still have been maintained; it is probably not high enough anymore for small and marginal farmers, however. Since small farms account for a large part of the cultivated area (30% of the land is in holdings of less than 1 ha), it is important that the small farmers have sufficient incentive to use purchased inputs. If they do not, it will be hard to achieve satisfactory overall increases in foodgrain output.

3.26 At whatever level the procurement price is fixed, all efforts will need to be made so that the post-harvest market price does not fall below the procurement price. This involves keeping the volume of procurement flexible. The procurement target for FY79 is 600,000 tons; if the price drops, however, the authorities should be prepared to purchase additional quantities. A flexible procurement policy aimed at stabilizing prices at incentive levels would induce the private rice traders to hold rice stocks over the year without undue speculative motives. To strengthen particularly the small trader at the thana and village level would also require increased availability of credit for these traders.

3.27 Annex 1 presents an illustrative model which attempts to show how much grain the authorities should be prepared to procure to achieve a certain price increase. The model is not based on statistical data but on the ranges of supply and demand elasticity quoted by observers, and it shows how much grain should be procured to achieve a stipulated increase in output. According to this model, total foodgrain procurement of between 520,000 and 600,000 tons would have been needed to raise prices enough to achieve last year's increase in output of 3% over the "trend" level (i.e., the level that would have prevailed in the absence of the procurement-induced price increase). The actual level of procurement which did achieve a 3% increase in output over the "trend" level was 550,000 tons, well within the range indicated by the model. The predictive value of the model in its present form should not be overrated, however, since it is too simple to do justice to the complicated nature of agricultural production which depends on the output of farms of different sizes, operating under different tenurial arrangements and producing a variety of products. Serious empirical investigation will be needed to arrive at a more satisfactory approximation of likely farmers' responses to price change. It is recommended that the Government attempt to base its procurement policy on systematic analytical investigations of this nature. These, it seems, should be entrusted to the Food Policy Unit which is to provide technical advice to the Ministerial Committee on Food.

3.28 The impact of the higher output price on production can also be achieved by an input subsidy -- a fertilizer subsidy, for instance. To have the same effect, it should reduce the marginal cost of production by an amount equal to the corresponding increase in the procurement price. The cost of providing that level of subsidy for fertilizer, however, is likely to differ from that of supporting the output price. Annex 1 of this report compares the cost of two approaches -- a rice procurement policy and a fertilizer subsidy policy -- assuming certain values for the elasticities of demand and supply of foodgrains and estimates of production costs. A tentative calculation indicates that, to achieve the same output increase, the fertilizer

subsidy would cost the Government about 150% more than the price support program of procurement and sales of foodgrains. <sup>1/</sup> In view of the illustrative nature of the model this result can of course be taken as only a very tentative indication of the relative cost of the fertilizer subsidy.

3.29 The price support allows the producer full flexibility in adjusting his inputs to the incentives, while the fertilizer subsidy restricts incentive in favor of this particular input and may not be cost efficient. On the other hand, it is sometimes argued that the benefits of price support are available even to those who do not raise productivity, while the fertilizer subsidy restricts benefits only to those who buy fertilizer which will eventually be used in production. This argument cannot apply to those who respond to potential incremental benefits: there is no reason why those who buy more fertilizer at subsidized prices will not also raise output in response to higher output prices. Thus, for any reasonable supply elasticity both schemes will induce a higher output, and a calculation of the cost of the two approaches becomes relevant. Doing this on a regular basis should again be the task of the Food Policy Unit, which should be concerned not only with production aspects but also with fertilizer and other input policies. As pointed out, however (para 1.19), it is difficult to justify the current subsidy level, since available supplies are presently insufficient to meet all of the demand for fertilizer.

#### E. Open Market Operations

3.30 The sale of foodgrains by the Government can be used for the purpose of stabilizing the price over the seasons, depending on the quantity and price of the sales. The distribution of foodgrains at prices well below the market price, as done in the past, reduces the volume of stocks which the Government can use for price stabilization, however. So far the Government has not used the stocks of grain at its disposal to achieve stability in the prices received by farmers. The operation of the ration system was completely separated from the Government's efforts to improve incentives for producers. While no change is envisaged in the ration prices for FY79, the Government intends to engage in a limited open market operation with the aim of stabilizing the rice price in the lean season. The plan is to sell about 200,000 tons of wheat -- at a price yet to be announced, but perhaps Tk 85/maund -- during the lean period to prevent the rice price from rising too high -- i.e., over Tk 145-150/maund -- provided there are adequate buffer stocks (about 500,000 tons).

3.31 Ideally, to prevent the rice price from rising too high in the lean season, open market operations should be done in rice and should start when the market price approaches a level which is considered to be the ceiling. Since it has been decided, however, to operate in wheat and with limited quantities, the Government can increase its impact on the rice price by

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<sup>1/</sup> As Annex 1 points out, the calculations depend on the parameters used and the estimates ignore changes in consumers' and producers' costs.

disclosing neither the ceiling and sale prices, nor the sale quantity prematurely, thus keeping speculators in the dark. It can then sell the available amount close to the prevailing market price for wheat as the price ceiling for rice is approached. The wheat price is usually 60-68% that of the rice price, and there appears to be considerable cross-elasticity in consumption between rice and wheat. If, then, Tk 150/maund is the threshold rice price, and if the 60-68% relationship holds, transactions would take place when the wheat price is Tk 90-102/maund. Analogous to a fixed minimum procurement price for paddy to be maintained by a flexible quantity of procurement, the Government could aim at maintaining an effective price ceiling on market prices by an open market operation flexible in terms of quantity. Given the fixed quantities of wheat earmarked for this operation in FY79, however, the second best solution seems to be to keep the price of wheat flexible and to make no announcement as to the quantity available for this operation, thereby minimizing speculation by private dealers.

3.32 Carried out on a sufficient scale, open market operations should lead to stable supplies and prices in consumer markets, thus eliminating the main justification for a general food rationing system. Once such stability were achieved, the only part of the rationing that might have to remain would be the transfer of food at subsidized prices to the most disadvantaged groups. Achieving the goal of market stability would, of course, require a substantial increase in the stocks of foodgrains, as well as improvements in transportation and marketing.

#### F. The Role of Jute

3.33 Bangladesh is yet to achieve a stable level of jute output large enough to supply the domestic and foreign markets. The relative price and, consequently, acreage have increased considerably in recent years, but output has not responded to the same degree. In FY79, however, a marked increase in output to 6.0-6.5 million bales, according to some preliminary estimates, is expected. With a 40-60% increase in productivity possible on IJCS land, the expansion of this scheme will be the key to output increases in FY79 and beyond. The success of the IJCS depends, inter alia, on the timely supply of inputs and on increases in trained staff.

3.34 The declining fortune of jute in recent years was not only due to shortages in output, but also to a very slow increase in world demand. In this context it becomes important that efforts to improve productivity do not lead to overproduction. The most recent FAO projections indicate annual world import requirements for raw jute of about 3.2 million bales by FY80. Maintaining its present share of 75% of world exports would imply the possibility of sales of 2.4 million bales of Bangladesh jute in the world market. (Alternatively, a higher level of 2.8 million bales may be projected on the presumption that Bangladesh could meet some of India's raw jute requirements). The future requirements of domestic mills are estimated at 3.3-3.6 million bales, in line with, respectively, jute goods exports of 550,000 and 600,000 tons and

no change in domestic consumption of jute goods. Combined with an unchanged 300,000 bales consumption of raw jute by domestic users other than mills, the lower demand figures give a lower bound of 6.0 million bales of raw jute production that can be marketed with no change in output prices. The higher figures imply a demand for 6.7 million bales with no change in price. Allowing, in addition, for a 300,000 bales stock buildup during each of the next two years implies a total demand for 7.0 million bales annually.

3.35 A second consideration in planning for the increase of jute output is its impact on rice production. Previous studies have discussed the changes in output in response to changes in the rice/jute price ratio. A recent investigation <sup>1/</sup> analyzed the financial and economic benefits from the two alternative crops. As far as financial benefits are concerned, the study shows that, at current prices, traditional production of aus paddy generates a net return of 30% of that for traditional jute. By comparison, the net financial return from improved aus production is 91% of that from IJCS jute. The study, however, projects that, due to price changes, improved aus rice would give a financial return of 140% of IJCS by 1985. With regard to economic benefits the study indicates that the net return at current prices for traditional rice is 65% that of traditional jute; improved rice, on the other hand, yields a net return of 118% of improved jute based on current IJCS yields, but only 85% of that of improved jute if the full IJCS potential is realized. By 1985, however, the economic return is projected to change in favor of rice. It would, therefore, appear that the opportunity cost of increasing jute production is not a binding constraint at least in the next two years or so; beyond that the opportunity cost of rice foregone could be a serious consideration, however. In the past, jute output has appeared to be quite responsive to price changes. This responsiveness should be conducive to restricting jute to areas less suited to rice when relative prices change in favor of rice.

3.36 To assure a stable and sufficiently large jute crop, the farmgate price should be at an incentive level. Farmgate prices for the first half of FY78 averaged Taka 120-125/maund, compared to the Government's minimum price of Taka 90/maund. It is expected that the farmgate price will eventually average around Taka 130-135/maund over the current year, well above the FY79 minimum price of Taka 100/maund. Farm budget surveys indicate that these price levels should provide sufficient incentives to jute producers, not only in absolute terms, but also relative to the expected price of rice.

3.37 The domestic price represents the shippers' opportunity cost of exporting jute; it is also the most important determinant of the profitability of jute manufactures (the cost of jute being 50% of the cost of production). The jute price rises in response to an increase in demand by either the shippers or the domestic mills who thereby inflict a cost on the other party. Considering the differing constraints under which these two groups of jute buyers function, it seems important to establish a mechanism to assure an "optimum" supply of jute to both. A number of options exist: one of them

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<sup>1/</sup> Economic Consultants Ltd. with PA Management Consultants Ltd., Internal Marketing and Pricing of Jute (Final Report), London, February 1979.

is the establishment of a buffer stock of jute. Analogous to the rice procurement program, the Government could stock jute when the price is low with a view to stabilizing price over the seasons. This idea has recently been endorsed by the FAO which has recommended a build-up of national stocks to stabilize international trade in jute. With the jute price presently at a high level, prospects are not good for starting to set up a buffer stock in FY79. The authorities should, however, be prepared to intervene in the market if in any future year prices were to drop substantially; to this end they may wish to seek appropriate financial and technical assistance from abroad.

3.38 The question of an appropriate price of raw jute cannot be addressed independently of the overall choice between raw jute exports and jute goods exports. In trying to estimate how the combined net export earnings from these two alternative sources can be maximized, one needs to compare (i) the export revenue earned from a unit of raw jute with (ii) the export revenue, net of cost, earned from converting a unit of raw jute into jute manufactures. A change in the domestic production cost of raw jute affects the former directly and the latter indirectly. Whether the mix of raw jute and jute goods exports is "right" depends on Bangladesh's ability to independently vary export prices. This ability is reflected by the demand elasticities for raw jute and jute goods. Annex 2 of this report shows that the world demand for jute goods exports is quite elastic, while raw jute demand is likely to be much more inelastic but not significantly different from one. This implies that there exists little possibility of gainfully responding to an increase in production costs in Bangladesh by increasing the export price of jute goods -- and even of raw jute -- except perhaps in the short term.

#### G. Agrarian Structure

3.39 The most striking feature of Bangladesh's agrarian structure is the growing pressure of the rural population on land. According to the Bureau of Statistics, the rural population grew by 35% between 1961 and 1974, making rural Bangladesh one of the most densely populated areas in the world. In 1974, the rural population density averaged 2,030 persons per square mile, with some rural areas (like those in Comilla) containing more than 3,000 people per square mile. Consequently, the size of landholdings has been declining steadily; currently about half of the landholdings are less than one acre in size and 60% are under three acres.

3.40 Even with high population densities and generally small holdings, the ownership of land has become increasingly concentrated. Evidence for 1977 indicates that 3% of the households own more than 25% and 11% own more than 52% of all land. In contrast, one-third of rural households own no agricultural land at all and, together with those owning less than half an acre, the effectively landless constitute about 48% of the rural population.

3.41 Land Tenure. A disturbing consequence of the population pressure are the emerging land tenurial arrangements which reflect the high value of

land and, therefore, the relative economic strength of the landowners. The Government obviously is aware of this situation but has not been able to go beyond setting up a commission to look into the question of land reform. An increasing percentage of farms (30-35%) are involved in sharecropping arrangements under which the tenants generally bear all the input costs, but share 50% or more of the output with the landlord. It is widely believed that the sharing of the gross output with the landlord leaves the tenant insufficiently incentive to invest in modern inputs. It might be argued that a potential benefit from investment exists for the landlord as well so that, where profitable, he might be expected to vary the tenurial arrangements and invest jointly with the tenants. The 1977 Land Occupancy Survey indicates, however, that landlords do not act in this manner, as less than 1% of them provided agricultural inputs to their tenants.

3.42 There is some evidence that in the Northwest region of Bangladesh, where sharecropping is relatively more widespread, productivity is lower, particularly in comparison with the Southeast region. This might be interpreted as evidence of a negative correlation between sharecropping per se and productivity. However, at least two additional factors should be considered: first, the Southeast region receives a relatively better supply of inputs; second, it contains relatively more small farmers who generally have been more responsive to the use of modern inputs.

3.43 Rural Income and Employment. Whether or not productivity is independent of the tenurial arrangement, the present trend in land ownership concentration is symptomatic of a deeper underlying problem: the lack of productive employment opportunities for the rural population and the resulting pressure on land. With most of the land under the plough, virtually no possibility exists for further extending the cultivated acreage. The rural population has been growing by about 2.6% annually since 1960, while according to a recent estimate the annual rate of increase of labor requirements in crop production between 1960 and 1976 was only 1.2%. The Ministry of Agriculture reports that the agricultural real wage, as a result, declined from about Tk 2 per day in the mid-1960s to about Tk 1.5 in the mid-1970s. According to the Rural Nutrition Survey of 1975/76, the caloric content of daily per capita food intake in the rural areas declined from 2,224 in 1962-64 to 2,094 in 1975/76, a decline of about 6%.

3.44 The available indicators of rural well-being do not extend to the period beyond 1975/76, when a significant upturn took place in agricultural production (para 1.04). Nevertheless, they serve to highlight the critical need to develop strategies to absorb the growing rural population in productive employment. In rural areas, ways and means need to be found to develop a wide range of employment-oriented activities which, in many cases, would require the prior development of appropriate technology. These could include agriculture-related schemes like small-scale irrigation and drainage systems and non-agricultural activities like cottage and small-scale industries and also, to some extent, the development of the services sector. Expansion of rural activities alone will not be enough to meet the employment needs. Thought must be given to a better spatial distribution of activities and people, and the potential for the development of lagging regions and secondary urban centers must be examined.

3.45 Rural development. The history of Bangladesh's earlier efforts in this respect shows, however, that there are many pitfalls on the road to rural development. Rural development is a complicated task, particularly in Bangladesh with its acute scarcity of resources, skewed distribution of land ownership, and widespread illiteracy and poverty. The country's main instrument for rural development, the Integrated Rural Development Program (IRDP), is based on the principles of village participation and training at the thana level of elected village representatives and was first put into practice under the auspices of the Comilla Academy. Although it was launched with considerable local enthusiasm and foreign acclaim and showed good initial progress, results of the IRDP have generally remained below expectations. Performance in the program area (200 thanas) is not perceptibly better than in the rest of the country. The main benefits have been the creation of a substantial organization reaching down to the village level and the experience which has been gained in dealing with rural problems. Hindsight reveals that the main shortcomings of the approach that has been followed fall into two categories: short comings of design and shortcomings of implementation.

3.46 Concerning design, it is now clear that the program has suffered from too little concern to establish clearly beforehand what was to be achieved. Activities under the program covered a large range of rural works: roads, bridges, drainage canals, storage facilities, markets, fish ponds, etc. For each of these a blueprint would have been needed determining what precisely was meant by a rural road, market, school, with what materials, methods, and manpower it was to be constructed, how much it was to cost and how much time construction was to take. Lacking such agreed blueprints, which of course would have required considerable study and research, some works of questionable quality have been constructed. This has given some of the rural works activities the character of give-away schemes rather than of additions to productive capacity. Conversely, research on proper design would have repaid itself in solid achievement and in the scope for replicating with less initial effort over wide areas, eventually over all of Bangladesh. The design stage also suffered from insufficient consultation at all levels about the actual content of the program. Such consultation is indispensable for the success of any planning exercise. In the thanas, rural people, not consulted about the program, remained unaware of what IRDP might have meant for their communities. Ministries and departments were not consulted about their precise role in the program or asked about their ability to carry out parts of it; as a result they did not really become committed to its execution. Sorting out local priorities and reviewing the division of responsibilities among government units would have paid off in greater enthusiasm and better coordination during implementation.

3.47 Following this weak preparation, implementation results could not be excellent. As it turned out, coordination among concerned ministries and departments has continuously left much to be desired, with certain agencies feeling some, but others no, commitment to it. Parallel rural development efforts were set up outside IRDP with which they competed for resources. Supervision of works has been inadequate; certificates of completion have been issued without proper inspection, sometimes for faulty or unfinished work. Without firm guidance, many cooperatives were allowed to become dominated by richer members who often have diverted funds for their own benefit.

The financing content of the program was poorly conceived; finding little of practical use in it, participants have attended courses irregularly and have not bothered to disseminate information to their fellow villagers. All around, implementation has suffered from lack of attention on the part of those who were to guide it and lack of enthusiasm and respect of those who were supposed to benefit. The lessons are clear: to be successful, programs to boost rural employment and incomes require a much larger, determined, detailed effort from start to finish. Innovative plans are necessary but are not sufficient in and by themselves.

3.48 Awareness of these shortcomings has been spreading and some steps have been taken to improve the situation. To strengthen the machinery for undertaking feasibility studies -- a difficult task in view of the lack of precise knowledge about local conditions in many parts of the country -- a special agency has been set up under the Ministry of Local Government, Rural Development and Cooperatives. To strengthen the position of smaller farmers, Rural Development Project I, which is financed with IDA support, requires that the board of directors of cooperatives have an equal representation of large, medium, and small farmers. Special credit facilities are being set up to benefit the landless. Finally, agencies participating in rural development are becoming increasingly aware of the need for better coordination and are directing their field offices to coordinate their actions with those of other agencies.

## CHAPTER 4. INDUSTRY'S CONTRIBUTION TO ECONOMIC DEVELOPMENT

### I. INTRODUCTION

4.01 Rapid industrial growth 1/ is a necessary condition for the eventual solution of Bangladesh's problems of slow GDP growth, mass poverty and heavy dependence on foreign investment resources. Agricultural development alone will be insufficient to overcome these problems. Although soil fertility is high, its present productivity low and farmers' response to output incentives by recent years' experience highly encouraging, the total contribution of agriculture to economic growth will remain strictly circumscribed by the relatively very small area of available land. Tentative calculations by the Bank suggest a maximum possible sustained growth rate of agriculture of 3-4% per year. As pointed out in Chapter 3, these are very high growth rates in comparison with the country's historic record as well as with those experienced in other developing countries.

4.02 Growth of agriculture at such an accelerated rate would, however, help lay a solid foundation for industrial development. A rise in rural per capita incomes of 1-1.5% a year would create a sizeable market for manufactured consumer goods (including processed agricultural products) and agricultural inputs and implements. To this should be added the gradually increasing scope for producing the capital and intermediate goods required by a more rapidly growing economy. Given the small size of industry's present contribution to GDP (8%), these factors should easily permit industry to grow by the 7% per year projected in the Two-Year Plan (and already in the first Five-Year Plan) and, with the right policies and efforts, by considerably more. A further growth factor should be an increase in exports of manufactured products: the abundance of unemployed, low-wage labor presents an enormous potential for the production of labor-intensive industrial products for export markets.

4.03 The Government should use the period of the Two-Year Plan to determine, first, what it will take to create a policy environment in which industry, public and private, can flourish and, second, what promising opportunities, by subsector and project, exist to realize industry's growth potential and what investment resources, manpower training and infrastructure improvement will be needed for their implementation. Drawing on analytical work recently carried out in the Bank, 2/ the present chapter chiefly concerns itself with the first of these two problem areas. Before discussing the subject further, however, a background sketch is presented of the historical industrial experience and of the present plight of the industrial sector.

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1/ Throughout this chapter, "industry" refers to manufacturing only.

2/ Bangladesh: Issues and Prospects for Industrial Development (in two volumes), IBRD Report No. 2191-BD, December 8, 1978.

## B. Background

4.04 Historically, the area that is now Bangladesh had very little industrial development. Before the partition of the subcontinent, only 4% of GDP was generated in the industrial sector and almost all of it in small and cottage industries. During the time when Bangladesh was part of Pakistan industry grew rapidly. Growth averaged 6.6% per annum during the period of FY50 to FY70 and was concentrated in the large- and medium-scale industries (which grew at a rate of 14.5%, compared to only 2.5% per annum for small-scale industry). Investment increased from less than Rs 400 million in FY64 (in constant prices of FY70) to more than Rs 1 billion by FY70. Approximately 25% of all investment was effected in the industrial sector, even though it produced less than 10% of GDP.

4.05 The first industries to develop were jute and cotton textiles. The former were to replace the jute mills of Calcutta which had processed the raw jute of East Bengal before partition. The latter, traditionally part of the early phases of industrialization, produced mostly yarn from raw cotton that was sent from West Pakistan to the cottage weavers for processing into cloth. By FY70, these two industries supplied 44% of all value added in the industrial sector. Food, beverages and tobacco were the other major industries, supplying about 20% of value added. Other intermediate goods producers supplied 13%, other consumer goods industries 14%, and capital goods manufacturing, the slowest to develop, 6%. Employment in medium- and large-scale industries increased from 60,000 workers in FY54 to 200,000 by FY70, an average increase of about 8% per year.

4.06 The policies of Pakistan then favored the development of private ownership of the industrial sector, but with widespread government control. This control was especially important in the rationing of foreign exchange which was at a premium because of the overvalued exchange rate enforced by the Government. Controls were also exerted on investment through the requirement of government sanctioning, and high tariff barriers encouraged import substitution rather than export orientation. There was general distrust of foreign investment and it was not encouraged. Unfortunately, there was little real planning and coordination of the various measures that were taken and, as a result, the determination of tariff rates and import licensing were often done on an ad hoc basis, leading to distortions in the development of industry, especially during the late 1960s. A number of industries developed whose survival depended on high rates of protection and ready access to undervalued foreign exchange. The engineering industry, for example, produced goods that were selling at a price double the c.i.f. import cost of competing goods.

4.07 Pakistan's industrial development banks provided funds and sometimes equity capital to entrepreneurs to set up industries. Interest rates were low and this, along with the overvalued exchange rate, encouraged investments in capital-intensive industries. Because import entitlements were related to installed capacity, there was also a tendency to excess capacity in the plants that were built. When it became obvious that the country's Eastern wing was

lagging in industrial development, the East Pakistan Industrial Development Corporation was set up to start industries in the East and to sell them to the private sector once they were established. As a result, by the third Pakistan Five-Year Plan (FY66-FY70), 40% of investment in the East was for public sector corporations, compared to only about 10% in the West. Still, many of the industrial units in the private sector in East Pakistan were owned and run by West Pakistanis and the actual involvement of Bengalis remained at a low level.

### C. Industrial Development After Independence

4.08 At the end of the war that led to Bangladesh's independence, the new Government, committed to socialism as one of its tenets, nationalized all of the jute, cotton textile and sugar mills as well as all enterprises abandoned by their former West Pakistani owners. As a result, 85% of the assets of the industrial sector were in the public sector. An estimated Tk 300 million in assets -- out of an original Tk 6 billion -- had been destroyed during the war, much of the entrepreneurial and managerial talent had left the country, and a serious structural imbalance arose because plants had generally been set up in the context of the integrated Pakistan market. The industrial policy of 1973 set a limit of Tk 2.5 million on private sector investment, thus relegating it to the small and cottage sector only. Public sector corporations were set up to run the nationalized industries, and over 85% of investment in the industrial sector during the first Five-Year Plan was to go to the public sector.

4.09 The ceiling on private investment was raised to Tk 30 million in 1974 and to Tk 100 million after the change in Government in 1975. Other measures taken to encourage the private sector to participate more fully in the industrialization process included the decision to disinvest some of the smaller firms taken over after independence, the establishment of the stock exchange, the setting up of the Investment Corporation of Bangladesh (ICB), and the decision to pay compensation for units nationalized. By the fall of 1978, 77 firms worth Tk 330 million had been sold back to private entrepreneurs, and the Government is planning to sell another 11 in the near future. However, most of these were small, older firms, usually operating at a loss and representing a small percentage of total output. The public corporations still control the lion's share of the sector.

4.10 Tables 13 and 14 show the progress of the industrial sector -- or at least of the industries covered by the annual census of manufacturing industries, which tend to be the larger firms. Table 13 shows the index of production and Table 14 key variables for FY60, FY70 and FY76 (the last year for which detailed data were available).

Table 13: INDEX OF INDUSTRIAL PRODUCTION  
(FY70 = 100)

<u>FY63</u>	<u>FY66</u>	<u>FY70</u>	<u>FY73</u>	<u>FY74</u>	<u>FY75</u>	<u>FY76</u>	<u>FY77</u>	<u>FY78</u>
58	76	100	81	95	86	94	100	107

4.11 Industrial production grew at an average rate of 8% per annum in East Pakistan during the 1960s, but fell sharply immediately after independence due to the severe shortage of foreign exchange to import raw materials and the physical disruptions caused during the war. Although the availability of foreign exchange to the industrial sector has improved, the timing of foreign exchange allocations still presents a problem. The index of overall industrial production in FY73 was 19% lower than the FY70 level and only reached the pre-war level again in FY77. During this post-independence stagnation in industrial production, the population increased from 70 million to 83 million.

4.12 The deterioration in the condition of the industrial sector is depicted in Table 14. Generally speaking, the 1960s were a period of impressive growth in the industrial sector with capital, labor and output all expanding. The period FY70-76, however, was one of virtual stagnation in output despite increases in the stock of capital and labor, implying a decline in productivity of the factors of production.

Table 14: SUMMARY OF TRENDS IN MANUFACTURING

	<u>FY60</u>	<u>FY70</u>	<u>FY76</u>	<u>Ratio</u> <u>FY60:FY70</u>	<u>Ratio</u> <u>FY70:FY76</u>
Value Added (Constant FY70 Prices; Tk millions)	548	1,534	1,436	2.80	0.94
Employment (thousands)	139	204	374	1.47	1.83
Capital (Constant FY70 Prices; Tk millions)	605	1,875	2,902	3.10	1.55
Capital/Output Ratio	1.1	1.2	2.1	1.09	1.75
Capital/Worker (Constant FY70 Prices; Tk)	4,353	9,164	7,760	2.11	0.85
Output/Worker (Constant FY70 Prices; Tk)	3,934	7,486	3,830	1.90	0.51
Average Real Wage (Constant FY70 Prices; Tk/year)	1,480	1,798	1,320	1.21	0.73
Return on Investment (Constant FY70 Prices; Percent)	57	62	32	1.09	0.52
Index of Total Productivity (FY60 = 100)	100.0	114.0	65.7	1.14	0.576

4.13 High levels of investment raised the capital stock rapidly, especially in the first half of the 1960s. Nonetheless, the capital output ratio remained very steady throughout this decade at between 1.1 and 1.6, a level that compares favorably with other countries. <sup>1/</sup> The capital-labor ratio increased in real terms by over 100% in the 1960s. After independence, however, the capital-output ratio increased greatly, probably reflecting declining production because of the loss of markets, shortages of raw materials and other inputs and decreased efficiency in the industrial sector rather than any decrease in the marginal output of capital due to increased capital intensity. <sup>2/</sup> Similarly, the large decline in the gross rate of return on capital is probably due to inefficiency and lack of needed inputs rather than to capital saturation. Still, the sharp drop in the rate of return -- together with the prevailing industrial policies -- seems to have cut down the rate of investment from retained earnings and to have kept new investors out of the industrial sector.

4.14 The number of workers in industries covered by the Census of Manufacturing Industries (CMI) increased throughout the 1960s. At the same time, value added per worker increased by about 90%. Labor costs as a percentage of value added fell from 38% in 1960 to only 24% by the end of the decade, and the average real wage per worker grew by about 20% during this period. The picture changed completely after liberation with a sharp rise in the percentage of value added going to labor, a drop in the average real wage and a sharp decline of value added per worker to the level of 1960. Since the capital-labor ratio (in constant prices) does not seem to have fallen greatly during the 1970s, it appears that decreased labor efficiency and foreign exchange shortages led to the lower productivity of labor. Many of the public sector corporations also appear to be overstaffed with workers hired more for social than productive reasons.

4.15 This decline in overall industrial productivity is a major problem facing Bangladesh. While employment and capital have both increased since FY70 -- by more than 80% and 50%, respectively -- value added is less than it was at the beginning of the decade, indicating a large increase in the capital-output ratio and a sharp fall in output per worker. Both the average real wage and the rate of return on capital have fallen and the index of total productivity <sup>3/</sup> (value added per unit of capital and labor), after increasing by 14% during the 1960s, has decreased by almost 50%. Similarly, value added as a share of gross output in the industrial sector has fallen from 44% to 32%.

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<sup>1/</sup> For example, in the 1960s Tanzania's ratio ranged from 1.6 to 2.0 and India's from 3.0 to 3.7, and Sri Lanka's in 1974 was more than 2.0.

<sup>2/</sup> This is borne out by attempts to calculate ICORs for the years 1973 through 1976 which yield very low values of 1.0 and 1.1, suggesting that capital is not the major constraint to output.

<sup>3/</sup> This is calculated by comparing the weighted average of the increases in capital and labor with the increase in production. The weights are the shares of labor and capital in output in the base year, here FY60.

This is the result of both decreased efficiency in the sector and the inability of many industries to pass on raw material cost increases due to government price controls. 1/

4.16 As mentioned above, government policies in the 1950s and 1960s encouraged the creation of excess capacity. As a result, capacity utilization has always been low in many industries. After independence, the Pakistan market was lost and some industries faced the problem of even more excess capacity. From an average level of 70% in FY70, the average capacity utilization in major industries fell to 49% in FY73 and then rose slowly to reach 61% by FY77. 2/ In spite of its policies, the Government had always hoped that it would be able to increase the rate of capacity utilization, and in recent years it seems to have been successful in slowly bringing the sector back towards the pre-independence levels.

4.17 The slow growth and declining productivity in manufacturing point to fundamental problems in the management of the sector, suggesting misdirected investment, over-hiring of personnel and incorrect pricing of production factors and end products. The remainder of the chapter will review some of the problems of the public, the private and the export sectors.

#### D. Managing the Public Sector

4.18 In view of its dominant position (50% of industrial value added, 85% of exports and 85% of industrial investment outlays), the public sector deserves special attention. Financially, the public sector corporations have done very poorly, showing a loss in every year since FY73 except for one. Most of this has been due to the large deficits run up by the jute corporation. Still, the other corporations have generally shown a profit of less than 4% of their combined sales.

4.19 The financial figures, however, can be misleading as many of the input and output prices are determined by the Government, thus often artificially creating profits or losses. A better measure of the efficiency of the state enterprises is the domestic resource cost (DRC) which measures the cost of earning or saving a unit of foreign exchange. Table 15 sets out three estimates of the DRC for some of the industries and some of the firms within them. The financial DRC is a measure of the cost of foreign exchange using

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1/ Preliminary data for FY77 and FY78 suggest that the situation is now improving in the public sector.

2/ Capacity utilization figures must be taken cautiously, because rated capacity figures are often unrealistically high.

Table 15: DOMESTIC RESOURCE COSTS IN MANUFACTURING (as of FY77)

<u>Industry</u>	<u>Financial DRC</u>	<u>Economic DRC</u>	<u>Incremental DRC</u>
	(----- Tk/\$ -----)		
<u>Cotton Textiles</u>			
1. Grey Cloth			
(a) Industry Average	15.8	15.3	14.2
(b) Good Mill /a	11.0	18.7	10.3
(c) Bad Mill /a	15.2	12.6	12.2
2. Cotton Yarn			
(a) Industry Average	12.2	14.4	9.4
(b) Good Mill	7.4	8.1	6.5
(c) Bad Mill	17.9	21.3	11.1
<u>Jute Textiles /b</u>			
1. Hessian			
(a) Industry Average	27.0	53.2	16.6
(b) Good Mill	14.8	12.7	11.1
(c) Bad Mill	66.4	45.0	25.5
2. Sacking			
(a) Industry Average	22.7	39.2	15.8
(b) Good Mill	13.0	11.6	10.4
(c) Bad Mill	25.0	20.9	14.9
3. Carpet Backing			
(a) Industry Average	30.8	397.0	14.3
(b) Good Mill	23.7	108.2	12.1
(c) Bad Mill	123.1	NEG	14.5
<u>Steel</u>			
1. Heavy Plate	NEG	NEG	63.7
2. Steel Billet	74.6	53.6	36.2
<u>Cement</u>			
1. Limestone	5.7	5.9	5.7
2. Clinker	7.0	8.6	6.2
<u>Food &amp; Allied</u>			
1. Sugar			
(a) Industry Average	17.4	20.9	15.3
(b) Good Mill	14.9	15.3	13.1
(c) Bad Mill	35.3	86.6	22.2
2. Frozen Shrimp	14.4	14.5	14.2
3. Cigarettes	3.7	3.7	3.5
4. Edible Oil	NEG	NEG	NEG
<u>Fertilizer</u>			
1. Urea (Fenchuganj)	2.6	3.7	2.9
2. Urea (Ghorasal)	3.5	4.8	3.6
3. TSP	26.9	NEG	9.8
<u>Paper &amp; Board</u>			
1. Newsprint	15.0	28.3	7.2
2. Particle Board	631.8	NEG	72.2
3. Rayon Yarn	77.5	159.0	16.2
4. Paper (Karnafuli)	57.9	20.2	16.4
<u>Chemical</u>			
1. Caustic Soda	279.8	NEG	41.9

/a The "good" and "bad" mills were identified by the corporations, and seem to have been chosen on the basis of their profitability or per unit costs.

/b There are, of course, marginal values valid for small changes in output where marginal costs and revenues are equal to price. Because Bangladesh does not face infinitely elastic demand curves for either raw jute or jute goods, major shifts in production would produce different DRCs.

Source: Mission estimates based on the questionnaire supplied to sector corporations.

the accounts of the corporations. <sup>1/</sup> The economic DRC attempts to measure the true costs by employing shadow prices. The incremental DRC ignores capital costs as being already sunk and uses only variable costs. The figures are of an illustrative nature only; they should be seen as indications of possible problems which require further investigation rather than as a guide for action.

4.20 These figures must be viewed with caution as they are a first attempt at estimating DRCs and are partly based on crude estimates. The cost figures were collected from the corporations using somewhat simple questionnaires, and the shadow prices used are based on estimates derived during the early 1970s. Nevertheless, the results are striking. Thirteen of the twenty-one products had an economic DRC well above the official exchange rate of Tk 15.5 per dollar in FY77. Five of the products (heavy plate, edible oil, TSP, particle board and caustic soda) actually cost more in foreign exchange than if they had been imported! Even on an incremental basis, steel, particle board and caustic soda manufacturing were very inefficient users of Bangladesh's scarce resources. These figures give some indication of the industries and firms which may require major efforts to improve production efficiency. Whether a given plant should be closed or not depends on the costs and benefits of the efforts needed to improve efficiency. Moreover, firms with good DRCs must be analyzed not only on the basis of current prices, but also of expected future prices and costs. The analysis presented here can only be a starting point for identifying investment possibilities and problems.

4.21 Only tentative suggestions can be made at this stage about solutions to the serious problems that are suggested by the above figures on profits and losses and domestic resource costs. First of all, it appears that the Government should make a sharp distinction between the immediate objectives of the public corporations and the wider objectives of economic and of social policy. At present, the public sector corporations carry the weight of various disparate objectives. They are charged not only with the production of certain commodities, but they also have to retain on their staff large and increasing numbers of redundant personnel and are required to sell products deemed to be of essential social importance (such as sugar, textiles, edible oils and pharmaceuticals) below cost. This makes it difficult for these enterprises to regain their financial health.

4.22 Second, public enterprises need autonomy in their daily operations. The Government made a move in this direction in 1976 when it issued guidelines aimed at providing maximum commercial autonomy to individual enterprises. Significant progress has been made in recent years in the implementation of

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<sup>1/</sup> If the DRC is below the official exchange rate of 15.5, production of the item in Bangladesh costs fewer domestic resources than the amount of foreign exchange that it would take to import it (or that would be gained by its export in the case of export goods). If the exchange rate is over- or undervalued, comparison should be with the shadow exchange rate.

these guidelines, although individual enterprises still need to obtain greater freedom in personnel management and in the day-to-day conduct of their marketing and purchasing operations.

4.23 Third, the reward structure should be geared to giving managers and workers strong incentives to operate their plants efficiently and profitably. Salaries of senior enterprise managers ought to be raised from their present low levels (Tk 2,500 per month). Throughout the public enterprise sector salary scales should be made more flexible so as to allow for rewards for excellent performance.

4.24 Fourth, training of industrial personnel at all levels needs increased attention. Only 2% of mill managers have relevant professional qualifications and only 14% of senior managers have received in-service training. A serious training effort is needed to make managers familiar with modern management techniques. At the technical level, there is the need to expand the training of skilled workers. The annual supply of only 1,400 skilled workers is obviously out of proportion with the needs of a sector employing 300,000 workers or with the annual supply of 700 engineers and 2,100 technicians. The technical training centers need to be expanded, their curricula improved and adapted to the requirements of Bangladesh industry and the supply of vocational teachers improved and expanded.

4.25 A related problem is the increasing departure in recent years of workers to the Middle East. Manpower departures now exceed 3,000 per month and the proportion of skilled workers among them appears to be rising. Personnel at the supervisory and management levels are also migrating in substantial numbers. Improvement in the quantity and quality of training at all levels is needed if Bangladesh is to cash in on the opportunities provided by the growing foreign market for its manpower and yet to retain sufficient qualified staff to develop the domestic economy. At the same time, it will be necessary to keep salaries of critical skill categories under review.

4.26 Fifth, for those industries that are to remain in the public sector, it is important that their machinery and equipment be put in good order. The inefficiency of many enterprises is directly related to the many years of neglect of plant maintenance and to the insufficient resources available for spare parts and replacements. Balancing and modernization programs are planned for the jute, textile and paper industries, but there is a clear need to develop similar programs for the fertilizer, steel, cement, and sugar industries. Where original plant outlay has irredeemable shortcomings, however, or where machinery is completely obsolete, it may be best to cut losses and scrap the plant.

4.27 The Government may feel that the private sector is not yet ready to tackle the financial, technical, and managerial problems of owning and operating the larger enterprises presently in the public sector. It seems clear that any transfer of control to private interests would indeed require careful preparation and might have to be stretched over a few years. A policy statement clarifying the ground rules for the public and private sector would, however, reduce much of the prevailing uncertainty about the Government's industrial strategy and may have a galvanizing effect on private initiative.

### E. Improving Private Sector Policies

4.28 As in other countries of South Asia, the activities of the private sector are subject to numerous bureaucratic controls. Immediately after independence, the scope for the private sector was severely limited, but the Government later liberalized its stance and began to give greater recognition to the role of the private sector, raising the investment ceiling and permitting private investment in areas earlier reserved for the public sector. These factors have led to a rising volume of private investment, particularly in FY78 when investment approvals increased by about 50% over the previous year. The total amount of these approvals, however, was the equivalent of only about US\$140 million and it is not certain what part of the approved investments will actually be implemented.

4.29 In guiding industrial development, the Government needs to rely less on controls (such as on imports and investment licensing) and more on policy instruments (such as customs duties, taxes and incentives) and financial institutions. The operation of controls, beyond being open to corruption, takes a heavy toll on the country's scarce administrative talents. There is evidence, moreover, that controls stifle entrepreneurship. As in neighboring countries, controls are least of a burden for the larger, well established firms, who know how to work the system to their advantage. They are very hard, however, on small and would-be entrepreneurs.

4.30 For the allocation of foreign exchange among users the Government has consistently relied on import licensing rather than on tariffs or the exchange rate mechanism. In recent years there has been some movement towards liberalization: licenses for raw materials imports by industrial firms have been lengthened from six months to one year, and for specified items and limited time periods the Government has allowed open general licensing of imports. The system is still apt, however, to lead to inefficient resource allocation. All firms of a certain category, for example, may be allowed imports sufficient for one-shift operation of their plants, while firms in another category are permitted imports for only 75% of one-shift operation. Allocations of this nature disregard efficiency considerations which might require triple-shift operations of certain plants and closure of others. Obviously, it would be very hard for government officials to discern between the merits of the needs of individual enterprises; the best solution would, therefore, seem to be to move further toward a liberalized system in which the price of foreign exchange, including tariffs, on the one hand and individual profit expectations on the other determine each firm's demand for foreign exchange.

4.31 As far as the approval of investments is concerned, the import controls are compounded by various, often overlapping, approval procedures. In this case again, it would appear that the control system -- besides leading to duplications, unnecessary delays and the possibility of corruption -- far exceeds the ability of government officials to determine what will be desirable for the economy. A reduction of the number of layers of bureaucratic control over investment and the eventual liberalization of investment

approval seem highly desirable. The basic principle should be that, as a rule, private projects will be allowed to proceed unless it is certain that they would lead to serious overcapacity generation.

4.32 Generally, industrial policy should be based less on controls and more on policy instruments. In some important respects, however, these instruments will need to be modified. Based on an analysis of the needs for tariff protection -- by a Tariff Commission which would need to be upgraded for this task -- the Government should rationalize the tariff structure; the Commission should be able to benefit from the research on international trade policy which is now being carried out jointly by the Bangladesh Bank and staff of Boston University. Tax write-offs and other financial incentives should be granted to expanding firms as well as to new ones, as the system should reward expansion of output, not simply new capacity. A carry-forward provision for losses should be introduced; restrictive requirements on the use of tax-holiday profits should be removed, and the capital gains tax on share-trading profits should be lowered.

4.33 The inflow of foreign investment capital can be improved by early publication of a Foreign Investment Protection Act, permitting full repatriation of profits and capital within a reasonable period (such as seven years), and a clear statement of all the terms and conditions for foreign investment in Bangladesh.

4.34 The general structure of the financial institutions in Bangladesh is adequate, but many of the institutions need strengthening through training, filling of staff vacancies and better pay and incentives, as well as more operational autonomy. The field of industrial promotion, including equity investment, preparation of feasibility studies and generally assisting investors, is especially weak, although the creation of an institution for this purpose is being considered.

#### F. Developing an Export Strategy

4.35 Development of the export sector is of utmost importance for the development of the Bangladesh economy. It can bring dynamism and efficiency to the industrial sector as well as to related trading and transport activities, help reduce the large trade deficit and provide additional jobs to the many unemployed. These are areas of high priority for the development of Bangladesh and it is, therefore, encouraging that the Government has decided to give strong emphasis to the promotion of industrial exports in the second Five-Year Plan. In spite of the weakness of its industrial sector, Bangladesh does have some of the important prerequisites for developing its exports of manufactures: the present industrial base, although not large, is reasonably developed; low-wage labor is abundantly available; and the number of businessmen, managers and entrepreneurs with industrial experience is fairly substantial. To this can be added the existence of relatively well developed banking and commercial services. These factors, although not unusually favorable, certainly present Bangladesh with a starting point for an export drive.

4.36 Thus far this potential has remained largely unutilized. Exports still amount to only some 7% of GDP and continue to consist predominantly (71%) of jute and jute goods. Post-independence growth of exports has been relatively slow, only 8% per year in nominal terms during FY73-78. Jute exports, facing increasing competition from synthetics, have been nearly stagnant, growing by merely 3% a year. Non-jute exports, however, have shown impressive growth, increasing by 33% a year during the same period; having started from a very low base, however, they still make up only 29% of total exports. Future export development will need to include both increased jute goods exports and diversification and expansion of other exports. The Government and IDA, as well as other donors, are currently working on the development of action programs to strengthen the jute industry, including the marketing and promotion of exports and cost reducing improvements in efficiency of the mills.

4.37 For the other export industries the Government currently offers a number of incentives. One of them is the Export Performance Licensing Scheme which allows exporters (both public and private) to receive vouchers for foreign exchange which they may use for the importation of raw materials or sell at a premium to other importers. Other incentives include the rebate of indirect taxes, a tax reduction on export earnings, some export taxes on raw materials, special subsidies, and preferential rates for export financing. The Government has set up an Export Promotion Bureau to promote the export of non-jute items; it has been useful in carrying out the expansion of exports, but still needs to have its role more clearly defined and is, moreover, badly understaffed. Other government bodies dealing with export promotion also need strengthening, with their role more clearly defined.

4.38 More effective export promotion will require both improved incentives and better guidance for exporters. One of the most important incentives, the exchange rate, improved significantly with the May 1975 devaluation. The structure of other incentives, however, still needs rationalization. The value of incentives varies greatly from product to product, the higher rates of effective protection presently provided to industries which are suffering losses (such as jute goods and paper). This disparity should be removed as soon as possible and replaced by uniform levels of effective protection for all export products. This change could be combined with an increase in the overall level of export incentives. At present, the combined value of export taxes and subsidies and the Export Performance Licensing scheme averages only 7% over the official exchange rate for all exports together. This is a rate which is probably not high enough to attract funds away from less risky and more traditional activities such as importing, domestic trading, real estate and even import-substituting industries.

4.39 Especially in the beginning of the export drive the Government must do much more than offer incentives. The condition of the industrial sector is such that rapid response to mere financial incentives to export is not to be expected. Cut off from foreign markets, businessmen need the help of a greatly strengthened Export Promotion Bureau to supply them with information on markets and product design as well as finance to sustain fledgling export

ventures. Moreover, would-be exporters should have easier access to foreign exchange to enable them to visit foreign markets. Since exporting of industrial products requires the type of quick response to market opportunities which is best left to private entrepreneurs, improvements in the climate for private investors, domestic and foreign, should be very helpful for the export sector. This is particularly true for light industrial products based on low-cost labor where the main thrust of Bangladesh's export drive should lie. Most of these products require a flexible production response to markets. Finally, there is a need to back up the entire export drive with an intensive program of studies of practical export possibilities. Such a program, which would require technical assistance from various quarters, is currently under discussion between the Government and IDA.

CHAPTER 5. ISSUES IN PUBLIC SECTOR RESOURCE MOBILIZATION

5.01 The disquieting trend of recent fiscal performance has been described at length in earlier reports. 1/ It can be summarized as follows:

- (i) a low, but rapidly rising level of tax revenue;
- (ii) an even faster rising level of current expenditures (much of it due to the transformation of the East Pakistan provincial administration into a national civil service) and, consequently, stagnation in the current surplus; and
- (iii) an expanding level of ADP spending which -- given the stagnating current surplus -- has to be increasingly financed through foreign aid resources and/or deficit financing.

5.02 The performance in FY78 does not show any improvement from that trend. Available data included in Table 3 above indicate that, despite a rise in the tax ratio from 6.8% of GDP in FY76 to 8.9% in FY78, the current surplus declined from 2% of GDP to 1.9% over the same period. It was, nevertheless, possible to increase development spending from Tk 8.5 billion to Tk 12.5 billion -- or from 8.6% to 11.4% of GDP -- primarily due to a very rapid expansion in foreign aid inflows. As a result, the share of foreign aid in the financing of development expenditures went up from 61% in FY76 to nearly 74% last year. In the budget forecast for FY79 the share of foreign resources in the financing of the ADP is expected to increase further to about 77%.

5.03 This increase in the country's dependence on foreign aid has been accompanied by a rise in the share of the ADP financed through project aid -- from 22% in FY76 to 34% in FY78. It is this latter phenomenon which has given rise to the complaint of many managers that progress in their projects is hampered by the inability of the Government to allocate sufficient domestic resources -- the "Taka shortage" problem. Since project aid finances, on average, 50% of project cost, nearly two-thirds of all resources available for the ADP go into foreign aid financed projects. Stated differently: half of the domestic resources 2/ available for the Plan are needed to complement disbursements on project aid, leaving only half of those resources for the financing of 100% domestically financed projects. Since the Government has to channel resources into a number of sectors which for various reasons do

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1/ Particularly in Bangladesh - Report on Domestic Financial Resource Mobilization, IBRD Report No. 1919-BD, April 26, 1978.

2/ Of course, most of these resources are counterpart funds generated by commodity aid and are, thus, also provided by donors. They are, however, not tied to specific projects.

not appeal to foreign donors, there is indeed in those figures an a priori indication that local resources available to complement foreign aid in the financing of projects have become more scarce over time.

5.04 This Taka shortage problem cannot be solved by shifting resources to aid-financed projects since then the domestically financed projects would suffer. The only long-term solution -- apart from the effect of the weeding out of uneconomic projects during the TYP (para 2.15, 2.16) -- lies in increasing the total amount of development resources. In view of the extremely low contribution of domestic resources to development financing, the main effort will have to be focussed on an improvement in the mobilization of domestic resources. In the interim, however, donors could help alleviate the Taka shortage by providing higher proportions of total project cost, including funds to cover local expenditures (in some areas, the proportion of aid in project cost appears to be relatively low) and by continuing to provide a reasonably large proportion of their aid in the form of commodity assistance. This, however, would be justified only if the Government simultaneously undertook increased efforts to muster more domestic resources.

5.05 Clearly, if the country is to reduce its dependence on foreign aid and, at the same time, increase its flexibility in the deployment of financial resources, the current surplus will have to grow faster than foreign aid disbursements. Fortunately, there are a number of factors which should facilitate an increase in public savings in Bangladesh. First, at the present level of 9%, the country's tax ratio is low compared to the level of taxation in other developing countries with similar per capita income levels. Furthermore, there seems to be ample room for an increase in tax revenue through improvements in tax administration. Finally, there is a need -- independent from the urgency to raise public savings -- to review the present taxation system, which was built up on the basis of ad hoc decisions taken under circumstances drastically different from those prevailing today. Import duties are a case in point. These duties were introduced in the past to penalize the import of non-essentials, to mop up part of the scarcity value of items imported under a system of quantitative restrictions and, especially in the early 1970s, to compensate for the then prevailing overvaluation of the currency. Especially now that new thought is being given to the role of domestic industry in economic development, the import tariff structure has to be studied in the context of industrial protection. Such a rationalization of the tax structure could, in turn, lead to a better allocation of resources, more rapid growth and, hence, indirectly to increased tax revenue.

5.06 It should be stressed, however, that an increase in tax revenue will not by itself guarantee that public savings will rise. Unless the expansion in current outlays can be curtailed, most, if not all, of the additional resources will -- as in the past -- tend to be absorbed by increased public consumption. The risk that this will happen is quite high in a country like Bangladesh where unsatisfied public consumption needs are still very large, especially in the fields of education and health services. On the other hand, some slowdown in current expenditure growth should be possible, now that a full national civil administration has been built up.

5.07 There are several other ways through which public savings can be increased other than by increased taxation. The first of these is a reduction in subsidies. In FY79, for example, subsidies on food and fertilizer consumption alone are expected to total Tk 2.0 billion -- despite increases of 11% and 14% in the ration prices of rice and wheat in FY78 and a 16% increase in the fertilizer retail price at the beginning of FY79. This represents as much as 60% of the anticipated current surplus and probably an even higher percentage of the surplus likely to be generated in FY79. It would be even higher if account were taken of the fact that most of the irrigation water is provided free of charge throughout Bangladesh. Although one cannot expect subsidies to be eliminated over night, there is plenty of scope for gradual reduction of the existing subsidies. This is particularly true for the fertilizer subsidy which, as pointed out earlier (para 1.19), is of doubtful value as a means to increase production under the present conditions of scarcity. Increases of as little as Tk 10 per maund in the price of fertilizer or the ration price of rice could increase government revenue by as much as Tk 0.2-0.4 billion and the current surplus by as much as 5-10%.

5.08 Improvement in the financial performance of public sector enterprises, including transport and public utilities, is another source of potential public savings. In this respect, the jute mills must be considered first. In FY78, the cash subsidy to the jute goods sector alone amounted to as much as Tk 0.6 billion. Admittedly, financial performance in that year was adversely affected by the unusually high purchase price of raw jute. Nevertheless, during the present year, cash transfers to the jute mills sector are still expected to be Tk 0.45 billion. It should be possible to reduce the drain on government resources through improved management practices, more efficient purchasing techniques, etc. The viability of the sector should also be improved through a stable supply of raw jute to the mills. Continued emphasis on improved production through IJCS, the possible setting up of a buffer stock for jute, and the introduction of a graduated export tax on raw jute may provide some of the answers to the problem of guaranteeing a plentiful supply at reasonable prices.

5.09 Although the operation of the jute mills represents the largest drain from industry on government resources, this sector is by no means the only one which could contribute to an improvement in public savings. Nationalized industries, other than jute, transfer part or all of their surpluses to the treasury. In FY78 such transfers amounted to Tk 0.25 billion, representing about 9% of government non-tax receipts. The chemical, steel and food industries were the major sectors which accounted for the surpluses. Other sectors, however, have put a burden on the budget, either by calling for new investment funds (often under conditions of no expected net return to capital) or by requiring conversion of previous loans into equity, entailing a concomitant fall in government interest receipts. For FY78, the shortfall in interest receipts of this type amounted to Tk 160 million. Clearly, a restructuring of the capital base of public sector enterprises and an improvement in their debt/equity ratio is in order, but this should not reduce the pressure on them to improve their financial management. What is needed (and possible) is an improvement in the overall performance of the public sector so

that the drain on public finance is ended. At the same time, attention should be paid to proper accounting practices, to make sure that surpluses are only transferred after due allowance is made for adequate depreciation charges.

5.10 Finally, there is scope for augmenting the resources generated by public undertakings such as the railways and postal and telecommunications system (PTT). A start in that direction was made this year by raising rail fares and freight rates; but even after this increase, receipts from rail traffic will continue to fall short of current expenditure alone. Further increases in rail fares, as well as increases in PTT rates, thus, seem called for, although there is ample scope for cost reductions as well -- especially for the railways.

5.11 One of the reasons why the Government opted for a Two-Year Plan was to permit the formulation of new policies before a second Five-Year Plan is embarked upon. It is, therefore, particularly encouraging that the authorities announced at the June 1978 meeting of the Bangladesh Aid Group their decision to establish a number of committees which are to investigate ways and means to improve the mobilization of domestic resources. These committees are to deal with most of the issues discussed in the previous paragraphs: (i) gradual elimination of the food subsidy; (ii) rationalization of the rate structure of the public sector transport agencies; (iii) economic pricing by public utilities; (iv) reduction in the subsidy on agricultural inputs; and (v) improvement in the financial performance of public sector enterprises. Specific recommendations by the committees on each of these subjects are expected in early 1979. Furthermore, the Government recently completed a detailed survey of the jute mills sector which should lead to a modernization program and, hopefully, to improved management practices and increased labor productivity. The final report of the Taxation Enquiry Committee is also due to be submitted soon. It is hoped that soon thereafter a start will be made with the implementation of the Committee's recommendations.

5.12 Not only is there a need to improve the mobilization of domestic resources, but there is also considerable scope for improvement in the management and sectoral allocation of existing financial resources. Two points should be made in this respect. First, it is now widely recognized that the existing system of public accounts in Bangladesh is a relic of the past and in dire need of restructuring. The monitoring and forecasting of expenditures is slow and often deficient; management of cash balances can be improved; the classification of accounts as between development and non-development expenditures is arbitrary; the accounts of public sector enterprises need to be put on a commercial basis; audits ought to be accelerated and improved. These problems have all been studied in detail; some progress is now being made with the implementation of recommendations for improvement in the jute and textiles sector.

OUTPUT PRICE SUPPORT AND INPUT SUBSIDIES 1/

1. The purpose of this Annex is to suggest a quantitative framework for a review of price and subsidy policies for foodgrain production in Bangladesh. It is clear that, given the severe data problems, an empirical discussion of most of the arguments for Bangladesh will be difficult, even for the short run. The scope of this Annex, therefore, is necessarily limited. The approach is to make some simplifying assumptions and to use "reasonable" values of certain parameters with a view to focusing on a few questions and making some illustrative calculations.

Introduction

2. The Government of Bangladesh operates a foodgrain procurement program, designed to supply grains to the urban areas and, more recently, also to support the farmgate price of foodgrains. The FY78 crop of 13.4 million tons was the largest on record. The Government procured 548,000 tons of foodgrains out of this -- about one-fourth of all grains marketed. It is believed that this operation had a significant impact in helping to support the post-harvest price at "incentive" levels. Rice was procured at Tk 132/maund and eventually sold in the ration system at Tk 100/maund.

3. In addition to providing such output price support, the Government also subsidizes most of the "modern" inputs in foodgrain production. In particular, fertilizer is sold at roughly 50% of cost. In FY78, the budgetary cost of distributing about 700,000 tons of fertilizer was about Tk 1,000 million, or about 27% of all development expenditures by the Government in the agricultural sector. Unless the rate of the subsidy is lowered, this subsidy component of agricultural ADB expenditures is expected to grow along with the marked increases in fertilizer sales expected in FY79 and beyond.

Output Price Support

4. In the short run, the supply curve of farm output slopes upwards, reflecting the increasing cost faced by farmers when raising production. Consequently, the expectation of a higher output price will lead to a larger supply, depending on the elasticity of supply of foodgrains. An increase in price is also likely to provide an incentive to farmers to reduce their own consumption, so that the increase in the marketed surplus will be larger than the increase in production. The additional marketed surplus due to the price increase contributed by the smaller farmer -- who, without the price increase, is likely to consume most of his output -- will be proportionately larger than that of the bigger farmer. In the long run, the expectation of a higher price will also stimulate output. It is then possible that the provision of an initially higher price to farmers can lead to a fall in the price (in real terms) in the long run.

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1/ This Annex was prepared by Vinod Thomas.

5. Confining the discussion to the short term, the productivity impact of the price support mechanism then depends mainly on the elasticity of supply with respect to the expected farmgate price. This output supply elasticity is derived from a number of factors -- but the crucial factor in Bangladesh is, perhaps, the availability of inputs to farmers. If, for example, the short-run supply elasticity is 0.1 -- i.e., a 1% increase in the expected price leads to a 0.1% increase in output -- the price should be increased by 30% more than what it would have been with no intervention in order to facilitate a 3% increase in output in a year. For a larger elasticity of, say, 0.2, the same benefit can be achieved by a 15% price increase.

6. The main elements of the gross benefit of the price support consist of (i) a higher output available to society and (ii) a higher price received by producers. The higher output is produced with the use of more resources, and if they are bid away from other production processes, the value of these resources, or the value of output foregone elsewhere, needs to be deducted from the gross benefits. In an unemployment situation, however, most of the value of the higher output is likely to represent a benefit. The higher price now available to all units of output implies an increase in producer surplus which will be the other part of gross benefits.

7. The first element in cost is the higher price on all units of output as it relates to the consumer. Unless the original situation was one of artificially depressed prices where the consumers were willing to pay a higher price, the loss in consumer surplus due to the higher price will need to be deducted from the gross benefits. In particular, one needs to consider the nutritional impact of the higher price on the poor.

8. The second component of cost -- the focus of this note -- is the Government's, or the taxpayer's, cost of engineering the price rise to bring forth the higher output. A first element determining this cost is the amount of price increase required for a given output increase; this is given by the price elasticity of supply. A second element determining cost is the level of procurement required to bring about a certain price increase.

9. Appendix 1 presents a model to help estimate the amount of procurement required to achieve a given price increase. <sup>1/</sup> The model operates with two time periods. The first time period, 1, consists of the four-and-one-half months between mid-November and March. During this time, the main source of foodgrain supply is the aman crop,  $S_1$ , which is about half the year's total crop. The second time period, 2, consisting of the remaining seven-and-one-half months, brings the other crops -- boro and aus -- denoted by  $S_2$ . The Government procures an amount,  $G_1$ , out of the aman crop,  $S_1$ , and effectively controls the market price during the first time period,  $P_1$ . Private traders also acquire an amount,  $S_n$  (assumed to be fixed), out of the aman crop. It is

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<sup>1/</sup> This is part of some work Professor George S. Tolley (University of Chicago) and the author of this note have been doing on agricultural price policies. The part of the model presented here deals exclusively with the issue of changes in the Government's cost, leaving aside changes in consumers' and producers' costs.

assumed that no procurement takes place in the second time period, 2. Total consumer demand in period 1, given by  $D_1$ , depends on the price,  $P_1$ , and the length of time,  $l_1$ . Similarly,  $D_2$  depends on  $P_2$  and  $l_2$ . Imports are assumed to be exogenous and are given by  $I_1$  and  $I_2$  for the two periods, respectively.

10. Demand in time 1 ( $D_1$ ) equals supply in time 1 ( $S_1$ ) minus increase in government and private stocks ( $S_G$  and  $S_n$ ) plus imports in time 1 ( $I_1$ ). Demand in time 2 ( $D_2$ ) equals supply in time 2 ( $S_2$ ) plus decrease in stocks ( $S_G, S_n$ ) plus imports in time 2 ( $I_2$ ). It is assumed that ration is supplied by the Government out of stocks at a steady rate,  $q_r$ , giving a total ration of  $R_1$  in 1 and  $R_2$  in 2. The above relationships imply that government procurement in period 1 ( $G_1$ ) equals total ration in period 1 ( $R_1$ ) minus imports in period 1 ( $I_1$ ) plus increase in stocks ( $S_G$ ).  $G_2$  would equal  $R_2$  minus  $I_2$  minus  $S_G$  -- but  $G_2$  is zero or negative.

11. Appendix 1 presents these relationships in the form of 10 equations and solves Government procurement in time 1 ( $G_1$ ), which is then written in terms of price in time 1,  $P_1$ . Differentiating  $G_1$  with respect to  $P_1$ , and re-arranging the terms, the following equation is obtained:

$$E = \frac{P_1}{G_1} \cdot \frac{dG_1}{dP_1} = \frac{\gamma - \frac{D_1}{S_1} \beta}{1 + \frac{R_1}{S_1} - \frac{D_1}{S_1} - \frac{S_n}{S_1}} \quad (A)$$

where  $E$  is the percentage change in procurement ( $G_1$ ) divided by the percentage change in price ( $P_1$ );  $\gamma$  is the price elasticity of supply;  $\beta$  the price elasticity of demand;  $D_1$  refers to demand and  $S_1$  to supply in time 1;  $R_1$  is the ration in time 1 and  $S_n$  the change in stocks of private traders. Equation (A) can be used to determine the percentage change in procurement required for any given percentage change in price.

12. Example. The aman crop in FY78 was about 7.4 million tons, giving a net supply ( $S_1$ ) of about 6.7 million tons. Total demand during the year was about 13.5 million tons, implying that demand in time 1 ( $D_1$ ) was about 5 million tons. Consequently,  $D_1/S_1$  in equation (A) for FY78 is 0.75. Total ration offtake in time period 1 ( $R_1$ ) was 642,000 tons, implying that  $R_1/S_1$  in equation (A) for FY78 is 0.09. There was a ban on private hoarding in FY78, so that the increase in private traders' stocks ( $S_n$ ) was probably negligible.

13. No estimate of supply elasticity is available. Two alternative values for the short-run elasticity, 0.1 and 0.2, are assumed here. Alamgir and Berlage (1973) <sup>1/</sup> estimate the price elasticity of demand for rice for Bangladesh to be about -0.3. Both this estimate and a higher value of -0.6 have been used by Agarwala (1978). <sup>2/</sup> These two numbers may be used to represent the demand elasticity to give a range for the required procurement.

14. For the purpose of illustration, we shall calculate the procurement required for a 3% increase in output -- i.e., from a level of 6.5 million tons (net) to the actual level of 6.7 million tons (net) in FY78. Suppose that 6.5 million tons would have been the aman crop if the same percentage of output were procured out of it by the Government in FY78 as in FY76. <sup>3/</sup> In FY76, 415,000 tons were procured out of a net crop of 6.3 million tons (i.e., 6.6% of the net crop). Assume that the output would have increased in FY78 to 6.5 million tons (net) if the same 6.6% (or 430,000 tons) had been procured. The output increase from 6.3 to 6.5 million tons could have been due to a variety of factors -- like improved supplies of fertilizers, irrigation, seeds, credit. To focus on the effect of procurement on price and, consequently, a further increase in output, we need to evaluate the increase required in procurement from 430,000 tons (the FY76 proportion) to raise output by 3% from 6.5 million tons (i.e., 7.2 gross) to the actual level of 6.7 million tons (7.4 gross) in FY78.

15. We insert the values of the parameters given in paragraphs 12 and 14 into equation (A) to obtain estimates for E (the percentage change in procurement with respect to the percentage change in price). If the supply elasticity is 0.1, the 3% output increase requires only a 30% price increase; a supply elasticity of 0.2 on the other hand requires a 15% price increase. If the supply elasticity (~~0~~) is 0.1 and the demand elasticity (~~0~~) is -0.3, E in equation (A) is about 1.0: i.e., a 1% price increase requires a 1.0% procurement increase. The 30% price increase for this case of supply elasticity to get the 3% output increase requires a 30% procurement increase. This means that from the level of 430,000 tons (para 14), procurement would need to increase by about 130,000 tons -- to about 560,000 tons. Alternatively, if the higher estimate of demand elasticity of -0.6 is used, E in equation (A) would be about 1.6. This would imply that a 3% output increase via a 30% price increase would require a 50% increase in procurement to about 640,000 tons.

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<sup>1/</sup> M. Alamgir and L.J.J.B. Berlage, "Foodgrain Demand, Import and Price Policy for Bangladesh," in The Bangladesh Economic Review, Vol. 1, No. 1, January 1973.

<sup>2/</sup> R. Agarwala, "Bangladesh: A Macro-Model for Projections and Policy Analysis", World Bank, 1978 (unpublished).

<sup>3/</sup> FY78 is compared with FY76 rather than FY77, because in FY77 output was abnormally low due to bad weather. FY76 and FY78 were relatively "normal" years.

16. If the supply elasticity ( $\epsilon$ ) of 0.2 is used, E in equation (A) for the two demand elasticities ( $\epsilon$ ) of -0.3 and -0.6 would be, respectively, 1.33 and 2.03. For the supply elasticity of 0.2, price needs to increase by only 15% to get a 3% output increase. The increase required in procurement for a 15% price increase for the two demand elasticity estimates is, respectively, about 20% and 30%, or about 90,000 tons and 130,000 tons. The level of procurement in FY78 for this case would be about 520,000-560,000 tons. The actual procurement in FY78 was about 550,000 tons.

Table 1: GOVERNMENT PROCUREMENT REQUIRED FOR A 3%  
OUTPUT INCREASE: AN ILLUSTRATION

Supply Elasticity	0.1		0.2	
	<u>Increase</u>	<u>Total</u>	<u>Increase</u>	<u>Total</u>
Demand Elasticity	(..... thousand tons .....			
-0.3	130	560	90	520
-0.6	210	640	130	560

17. Estimates for Table 1 are not to be interpreted to mean that a 3% output increase can be brought about forever by a program of procuring output in the range indicated. At best, it means only that, given all other right conditions, 1/ the marginal output increase in the short term can be facilitated by, or requires, an output price support engineered by procuring the quantities indicated.

18. What is the Government's cost of raising price by procuring the levels indicated in Table 1? A comprehensive answer cannot be given here, but some considerations are mentioned. A first element of cost is the procurement price -- Tk 132/maund or \$240/ton in FY78. Some or all of this cost may be recovered, depending on the price at which the Government sells grain. The Government sale price for rice was Tk 100/maund or \$182/ton in FY78. On this basis alone, the cost in FY78 would have been \$58/ton, implying a range of \$5.2-\$12.2 million for the increase in procurement. The cost of storage, handling, etc., has been estimated at about Tk 10/maund and the loss due to wastage at Tk 5/maund. 2/ Consequently, the range of Government cost would rise to \$7.7-\$17.9 million.

19. The sale of grain, however, raises some difficulties in estimating the cost of the program. The effect of the grain sale in depressing price and negating some of the production impact of procurement cannot be ignored. It may be argued, however, that if these sales take place throughout the year, the depressing effect on the market price will not be fully translated into a disincentive to farmers who sell grain immediately following the harvest.

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1/ This assumption is really embodied in the use of a supply elasticity -- i.e., it implies that inputs will be available to bring about the postulated output increase.

2/ Bangladesh - Second Foodgrain Storage Project, IBRD Report No. 1715a-BD, February 15, 1978.

Input Subsidy (Fertilizer )

20. The fertilizer subsidy reduces the marginal cost of production, thereby raising output. The same 3% increase in output envisaged under the output price support program can be achieved by a correctly chosen rate of fertilizer subsidy that would reduce the marginal cost of production by the same absolute amount as the price increase. For supply elasticities of 0.1 and 0.2, the output price needed to increase by 30% and 15%, respectively, to bring about a 3% output increase. Taking Tk 132/maund as the post-procurement price (para 18), the required absolute increases in price for the two supply elasticities were, respectively, about Tk 31 and Tk 17 per maund. The same reduction (of Tk 31 and Tk 17 per maund) in the marginal cost of production is now to be achieved through the fertilizer subsidy. The cost of achieving these marginal cost reductions through the fertilizer subsidy obviously need not be the same as that of achieving it through an output price increase.

21. If input prices are fixed, the marginal cost of producing an additional unit of foodgrains is the sum of the prices of inputs, weighted by the corresponding additional quantity of input required for the additional unit of output (i.e. the inverse of the marginal product of each input in output). If fertilizer is the only input whose quantity changes, then the change in marginal cost is inversely proportional to the marginal product of fertilizer. (This is obviously a restrictive assumption -- see para 23). If, as indicated in some studies, 1/ the marginal product of fertilizer is 3, the price of fertilizer would have to be reduced by, respectively, Tk 93 and Tk 51 per maund (or \$169 and \$93 per ton) in order to achieve the desired reduction in marginal production cost of Tk 31 and Tk 17.

22. How much increase in fertilizer use is required to get a 3% increase in output, i.e., to increase the aman output to the FY78 level of 7.4 million tons from a base of 7.2 million tons? In FY76, 132,000 tons of fertilizer were used for the aman crop. Holding all other inputs constant, Ahmed's estimates of the marginal productivity of fertilizer for Bangladesh 2/ imply that 67,000 tons of additional fertilizer would be required for the aman crop, giving a total requirement of about 200,000 tons. The subsidy on this amount alone, at the rates of \$169 and \$93 per ton (para 21), would be \$34 million and \$19 million, respectively.

23. The two cost estimates (paras 18 and 22) should not be compared before the assumed values of the crucial parameters are verified. The cost of both programs would be higher, if the supply elasticity were in fact lower.

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1/ See for example, R. Ahmed, "Foodgrain Production in Bangladesh: An Analysis for Growth, its Sources and Related Policies", IFPRI, Washington, D.C., 1976.

2/ Ibid.--The marginal productivity estimate, however, is for boro; that for aman is likely to be lower, implying an even higher cost of the program than that given in para 22.

The cost of the fertilizer subsidy would be lower if full adjustment in the use of other inputs were allowed for. Furthermore, before policy conclusions are drawn, a more comprehensive model should be used.

24. In favor of the price support approach it may nevertheless be said that it allows the producer full flexibility in the adjustment of inputs to the incentives. The fertilizer subsidy on the other hand provides incentive only to increase the use of one particular input. Appendix 2 shows that, theoretically, the response of output to an input subsidy is in fact only one component of the response of output to price support and that an input subsidy is, therefore, a less desirable option.

25. It is sometimes said that a significant number of the beneficiaries of the higher price under the price support program may not increase their production at all, whereas all those producers who buy inputs under the input subsidy program will invariably use them and increase production. Clearly, this argument does not apply to those who respond to potential incremental benefits: there is no reason why those who are willing to buy more fertilizer at a subsidized price will not raise output in response to a higher output price as well. Thus, if there is any supply elasticity, both schemes will induce producers to raise output, and a calculation of the cost of the two approaches becomes relevant.

26. In general, for any reasonable supply elasticity, the theoretical merit of the price support policy cannot be overlooked. Particularly if agricultural prices have been historically depressed and are below world price levels, a price support program is likely to be cost efficient. The input subsidy scheme, on the other hand, may be justified on the grounds that it is required to induce the use of a particular input in the early stages of its adoption.

Appendix 1

The equations used to derive the elasticity of price with respect to procurement are given below: 1/

$$D_1 = I_1 D(P_1) \quad (1)$$

$$D_2 = I_2 D(P_2) \quad (2)$$

$$S_1 = S(P_1) \quad (3)$$

$$S_2 = S(P_2) \quad (4)$$

$$D_1 = S_1 - S_G - S_n + I_1 \quad (5)$$

$$D_2 = S_2 + S_G + S_n + I_2 \quad (6)$$

$$R_1 = I_1 q_r \quad (7)$$

$$R_2 = I_2 q_r \quad (8)$$

$$G_1 = R_1 - I_1 + S_G \quad (9)$$

$$G_2 = R_2 - I_2 - S_G \quad (10)$$

To solve the system of equations (1) through (10), we substitute (1) and (2) into (5):

$$\begin{aligned} S_G &= S_1 - D_1 - S_n + I_1 \\ &= S(P_1) - I_1 D(P_1) - S_n + I_1 \end{aligned} \quad (1)^1$$

Substituting (1)<sup>1</sup> into (9), we obtain:

$$G_1 = R_1 - I_1 + S(P_1) - I_1 D(P_1) - S_n + I_1 \quad (2)^1$$

Differentiating  $G_1$  in equation (2)<sup>1</sup> with respect to price  $P_1$  and rearranging terms, we derive the elasticity of Government procurement ( $G_1$ ) with respect to price ( $P_1$ ), i.e., the percentage change in procurement with respect to the percentage change in price.

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1/ The meaning of the symbols is given in the text (pages 60-61).

$$E = \frac{P_1}{G_1} \cdot \frac{dG_1}{dP_1} = \frac{\sigma - \frac{D_1}{S_1} \beta}{1 + \frac{R_1}{S_1} - \frac{D_1}{S_1} - \frac{S_n}{S_1}} \quad (3)^1$$

where E is the elasticity of procurement with respect to price,  $\beta$  the price elasticity of demand, and  $\sigma$  the price elasticity of supply.

APPENDIX 2

Output Q may be expressed as a function of the two inputs -- fertilizer, F, and all other inputs, A. The equilibrium conditions are that the prices of the inputs,  $P_F$  and  $P_A$ , equal the respective marginal products,  $f_F$  and  $f_A$ , multiplied by the price of output  $P_Q$ . Thus:

$$Q = f(F, A) \quad (12)$$

$$P_F = P_Q \cdot f_F(F, A) \quad (13)$$

$$P_A = P_Q \cdot f_A(F, A) \quad (14)$$

Differentiating (12), (13) and (14) totally, the following expression is derived for the change of output with respect to a change in the price of output,  $\frac{dQ}{dP_Q}$ :

$$\frac{dQ}{dP} = \frac{1}{M} \cdot \left[ f_A (f_{FQ}^P f_{FF} - f_{AQ}^P f_{FA}) + f_F (-f_{FQ}^P f_{AF} + f_{AQ}^P f_{AA}) \right] \quad (15)$$

where M is the determinant of the matrix of (12), (13) and (14), and the subscripts denote derivatives. Similarly, an expression can be derived for the change in output with respect to a change in the price of fertilizer,  $\frac{dQ}{dP_F}$ :

$$\frac{dQ}{dP_F} = \frac{1}{M} \cdot (f_{FQ}^P f_{FF} - f_{AQ}^P f_{FA}) \quad (16)$$

It is readily seen that (16) is a subset of (15).

PRICE ELASTICITIES OF DEMAND FOR JUTE 1/

1. The extent to which Bangladesh can independently influence its export earnings by varying the export price of jute depends on the demand elasticities with respect to price that Bangladesh faces in the world for its raw jute and jute goods. This note puts together certain demand relationships to provide simple methods of deriving these elasticities and makes some preliminary estimations. The calculations use assumed values of certain parameters. The assumptions made, however, are perhaps fairly realistic, so that the results may be considered to be more than illustrative.

Jute Goods

2. If Bangladesh were the only exporter of jute goods, the price elasticity of demand facing Bangladesh would be the same as the world price elasticity of demand for jute goods. If, on the other hand, there are other competing suppliers of jute goods, the demand elasticity facing Bangladesh will depend on (i) the world demand elasticity, (ii) the price elasticity of supply of the rest of the world (ROW) for jute goods, and (iii) the relative shares of Bangladesh (BD) and the rest of the world in exports of jute goods. It can in fact be shown that in this case the following precise relationship would hold: 2/

$$\text{BD's demand elasticity} = [\text{World demand elasticity} - (\text{ROW's supply elasticity} \times \text{ROW's share})] \div \text{BD's share.} \quad (\text{A})$$

3. Grilli and Morrison 3/ have estimated the world demand elasticity for jute goods to be -2.67. For the purpose of illustration, two alternative values of -2 and -5 may also be assumed. These values represent highly elastic demand curves and reflect the large degree of substitution that exists in consumption between jute goods and synthetics. Equation (A) implies that the elasticity of demand facing Bangladesh will be more than the above values for the world, depending on how large are the supply elasticity and the share of exports of the rest of the world for jute goods. The share of the rest of the world in jute exports is currently about 60%. The rest of the world's supply elasticity is perhaps no more than 0.5 -- two alternative values 0.1 and 0.5 may be assumed for illustration.

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1/ This Annex was prepared by Vinod Thomas.

2/ The derivation of this formula is given in various books; for example, S.B. Linder, Trade and Trade Policy for Development (New York: Praeger, 1976), p. 158.

3/ See E.R. Grilli and R. M. Morrison, Jute and Synthetics, World Bank Staff Working Paper No. 171, January 1974, Annex 1, p. 7.

4. Using these values for the parameters, equation (A) may be estimated. Table 1 sets out the results. For the case of a world demand elasticity of -2.67 (Grilli and Morrison), the demand elasticity facing Bangladesh is about -7. In general, the Bangladesh elasticity is more than 2.5 times larger than that of the world. The results do not appear to be very sensitive to changes in the assumed value of the jute goods supply elasticity of the rest of the world.

Table 1: PRICE ELASTICITY OF DEMAND FOR JUTE GOODS  
FACING BANGLADESH

Elasticity of World Demand for Jute Goods	-2.0	-2.67	-5.0
Elasticity of Supply by the Rest of the World			
0.1	-5.1	-6.8	-12.6
0.5	-5.7	-7.4	-13.3

Raw Jute

5. World. The demand for raw jute (RJ) with respect to price is derived from that for jute goods (JG). The theory of derived demand provides a precise expression relating the world demand for raw jute to the world demand for jute goods. <sup>1/</sup> Accordingly, the raw jute demand elasticity depends on (i) the jute goods elasticity, (ii) the elasticity of substitution between raw jute and other inputs (OI) in jute manufacturing, (iii) the price elasticity of supply of inputs other than raw jute, and (iv) the relative shares of raw jute and the other inputs, respectively, in jute manufacturing. This expression can be simplified using the fairly realistic assumption that raw jute and the other inputs are used in fixed proportions in jute manufacturing: i.e., the elasticity of substitution is zero. In that case the following equation would hold: <sup>2/</sup>

$$\text{RJ demand elasticity} = [\text{JG demand elasticity} \times \text{RJ share} \times \text{OI supply elasticity}] \div [\text{OI supply elasticity} - (\text{JG demand elasticity} \times \text{OI share})] \quad (\text{B})$$

<sup>1/</sup> A number of authors discuss derived demand; for example, J. R. Hicks, The Theory of Wages (London: Macmillan, 1935), p. 242.

<sup>2/</sup> This formula was applied in The World Jute Economy, IBRD Report No. 1141-BD, July 12, 1973, p. 62.

6. To estimate equation (B), one may again use the values of -2, -2.67 and -5 for the Jute Goods (JG) demand elasticity. It may be realistically assumed that the shares of raw jute (RJ) and the other inputs (OI) in jute manufacturing are 50% each. Then the raw jute demand elasticity, according to equation (B), would depend on the supply elasticity of the other inputs. For a preliminary calculation, two values of the supply elasticity of other inputs may be tried -- 1 and 2. The larger this supply elasticity, the larger is the raw jute demand elasticity, but as it turns out the results are not quantitatively very sensitive to the values used.

7. Table 2 represents the estimates of the world demand elasticity for raw jute. For the case of a jute goods demand elasticity of -2.67, the raw jute elasticity is between 0.6 and 0.8. The larger the jute goods demand elasticity, the larger is the raw jute demand elasticity. For all cases considered, the raw jute elasticity is considerably less than that of jute goods -- it appears that this would be so for any reasonable value of the supply elasticity of other inputs.

8. Bangladesh. From the estimates of the raw jute demand elasticity for the world made above one can calculate the raw jute demand elasticity facing Bangladesh using the method embodied in expression (A). To recapitulate, the Bangladesh elasticity would exceed that of the world (para 7), depending on how large are the supply elasticity and the export share of raw jute of the rest of the world. The present share of the rest of the world in exports of raw jute is about 26%. The supply elasticity of the rest of the world is perhaps no more than 0.5 and is more likely to be much lower. Two alternative values of the supply elasticity (0.1 and 0.5) are used and, as in the earlier case, the results are not very sensitive to changes in its value.

Table 2: PRICE ELASTICITY OF DEMAND FOR RAW JUTE  
FOR THE WORLD

	Elasticity of World Demand for Jute Goods		
	-2.00	-2.67	-5.00
Elasticity of Supply of Other Inputs	-----		
1	-0.50	-0.57	-0.71
2	-0.67	-0.80	-1.10

9. Table 3 gives the estimates of the price elasticity of demand for raw jute facing Bangladesh. To simplify the exposition, only three values of the world demand raw jute elasticity are considered -- corresponding to the

cases where world jute goods elasticity is -2, -2.67 and -5.0, respectively, and the supply elasticity of the other inputs is 1. In all these cases, Bangladesh's price elasticity of raw jute demand is less than -- but close to -- one.

10. Bangladesh's raw jute elasticity was derived in turn from (i) the world raw jute elasticity and (ii) the world jute goods elasticity. Bangladesh's raw jute elasticity increases as these two parameters increase, but less than proportionately because of the interaction of the other parameters.

Table 3: PRICE ELASTICITY OF DEMAND FOR RAW JUTE  
FACING BANGLADESH

Elasticity of World Demand for Raw Jute	-0.5	-0.57	-0.71
Elasticity of Supply of Raw Jute by Rest of the World			
0.1	-0.71	-0.80	-0.99
0.5	-0.85	-0.95	-1.10

According to Table 3, the raw jute demand facing Bangladesh is generally inelastic. However, for larger values of world demand elasticities and/or large values of raw jute supply elasticities of the rest of the world, the raw jute elasticity facing Bangladesh rises above one.

Conclusion

11. Comparing Tables 1 and 3, we find that Bangladesh faces a far more elastic demand schedule for jute goods than for raw jute. The jute goods demand elasticity facing Bangladesh is large and is implicitly determined by the world demand elasticity as dictated by the price of jute's competitor, synthetics. As the rest of the world's ability to supply jute diminishes (i.e., with a lower supply elasticity of ROW), Bangladesh's demand elasticity diminishes -- although not markedly (Table 1). The raw jute demand, derived from that of jute goods, reflects the substitution of synthetics in consumption, but to a lesser degree (Tables 2 and 3). The raw jute demand elasticity for the world would be lower depending on how difficult it is to obtain or release the other factors (elasticity of supply) in jute manufacturing (Table 2). Furthermore, the raw jute demand from Bangladesh will be even less elastic as the rest of the world finds it more difficult to supply raw jute (Table 3).

12. The numerical examples tend to suggest that Bangladesh has a far greater ability to vary its raw jute price independently than its jute goods price. Bangladesh, thus, appears to have little flexibility with regard to augmenting its export earnings by trying to vary the price of jute goods independently. It appears that Bangladesh is relatively more of a price setter in the case of raw jute compared to that of jute goods. Even for raw jute, however, in many cases the demand elasticity, according to the above estimates, is close to one. This implies that even raw jute export earnings are not easily influenced through an independent manipulation of the raw jute price by Bangladesh. Furthermore, the elasticity estimates presented thus far were built up from short-run world demand elasticities estimated by Grilli and Morrison. Their regression equation allows no time lags and relies on quarterly data for the 1969-1972 period. Consequently, the price elasticity may be interpreted to be a short-term one, with the corresponding long-term elasticity likely to be higher.<sup>1/</sup> This qualification for the long run would make the demand estimates even more elastic than those presented earlier.

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<sup>1/</sup> More precisely, the long-term elasticity (LRE) is related to the short-term elasticity (SRE) as follows:

$$\text{LRE} = \frac{\text{SRE}}{(1 - \text{coefficient } P_{t-1})}$$

where  $P_{t-1}$  is the price in the previous time period. Thus, the larger the response in demand in this time period to the price in the previous time period, the more the LRE will exceed the SRE.

STATISTICAL APPENDIX

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TABLE 1.1

## POPULATION ESTIMATES, HISTORICAL AND PROJECTED

A. HISTORICAL ESTIMATES <sup>a/</sup>				B. CENSUS RESULTS <sup>b/</sup>			
Year (1 January)	Population (in millions)			Average annual rate of growth (in %)	Crude birth rate (in ‰/oo)	Crude death rate (in ‰/oo)	Total Population (in millions)
	Male	Female	Total				
1911	..	..	33.2	...	...	...	31.555
1921	..	..	33.9	0.5	57.8	52.5	33.255
1931	..	..	35.8	0.6	58.2	52.8	35.602
1941	..	..	38.8	0.8	55.0	47.4	41.997
1951	..	..	42.6	1.0	47.8	38.2	41.932
1961	..	..	53.4	2.2	50.2	28.4	50.840
1974	..	..	..	..	..	..	76.398 <sup>c/</sup>

C. ESTIMATES AND PROJECTIONS, 1970-2000 <sup>d/</sup>			2. Bangladesh Bureau of Statistics <sup>e/</sup>					
Year (1 January)	1. IBRD		Population (in millions)			Average annual rate of growth (in %)	Crude <sup>f/</sup> birth rate (in ‰/oo)	Crude <sup>f/</sup> death rate (in ‰/oo)
	Population (in millions)	Average annual rate of growth (in %)	Male	Female	Total			
1970	70.8	...	35.807	33.496	69.303	...	} 43.0	} 18.0
1971	72.3	2.1	36.684	34.316	71.000	2.4		
1972	72.4	0.1	37.518	35.096	72.615	2.3		
1973	74.4	2.8	38.371	35.895	74.266	2.3		
1974	76.2	2.4	39.258	36.797	76.055	2.4		
1975	78.2	2.6	40.286	37.757	78.043	2.6	} 39.7	} 16.5
1976	80.4	2.8	41.255	38.645	79.880	2.4		
1977	82.7	2.9	42.208	39.562	81.765	2.4		
1978	85.0	2.8	43.195	40.463	83.678	2.3		
1979	87.3	2.7	44.211	41.434	85.645	2.4		
1980	89.6	2.6	45.249	42.408	87.657	2.3	} 35.9	} 14.2
1985	101.4	2.5	50.337	47.354	97.691	2.2		
1990	113.2	2.2	55.258	52.259	107.517	1.9		
1995	124.4	1.9	60.259	57.095	117.354	1.8		
2000	134.2	1.5	65.133	61.797	126.930	1.6		

.. = Not available.

... = Not applicable.

<sup>a/</sup> Estimates of the Harvard University Center of Population Studies.<sup>b/</sup> Source: Bangladesh Bureau of Statistics.<sup>c/</sup> Adjusted census result, corrected for 16% degree of underenumeration in the four major urban centers and 6% in the rest of the country.<sup>d/</sup> Prepared by the Population and Human Resources Division of the IBRD, assuming that a net reproduction rate of 1.0 will have been achieved by the year 2000.<sup>e/</sup> Based on the assumption of declining fertility and mortality rates.<sup>f/</sup> Assumed rates underlying the population projections.Sources: Harvard University Center of Population Studies;  
Bangladesh Bureau of Statistics;  
IBRD, Population and Human Resources Division.

TABLE 1.2

POPULATION BY SEX AND AGE, 1974  
(In percent of total population)

<u>Age</u>	<u>Male</u>	<u>Female</u>	<u>Total</u>
0 - 4	9.29	8.83	18.12
5 - 9	7.55	7.10	14.65
<u>Subtotal, 0 - 9</u>	<u>16.84</u>	<u>15.93</u>	<u>32.77</u>
10 - 14	6.44	6.01	12.45
<u>Subtotal, 0 - 14</u>	<u>23.28</u>	<u>21.94</u>	<u>45.22</u>
15 - 19	5.48	5.09	10.57
20 - 24	4.63	4.28	8.91
25 - 29	3.88	3.58	7.46
30 - 34	3.24	2.98	6.21
35 - 39	2.68	2.46	5.15
40 - 44	2.20	2.02	4.23
<u>Subtotal, 15 - 44</u>	<u>22.11</u>	<u>20.42</u>	<u>42.52</u>
45 - 49	1.78	1.65	3.43
50 - 54	1.41	1.33	2.74
55 - 59	1.08	1.04	2.13
<u>Subtotal, 45 - 59</u>	<u>4.28</u>	<u>4.03</u>	<u>8.31</u>
60 - 64	0.80	0.79	1.59
65 and over	1.16	1.21	2.36
<u>Subtotal, 60 and over</u>	<u>1.96</u>	<u>1.99</u>	<u>3.95</u>
<u>TOTAL</u>	<u>51.62</u>	<u>48.38</u>	<u>100.00</u>

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Source: Bangladesh Bureau of Statistics, corrected Census results for 1 March 1974.

TABLE 2.1

## GROSS DOMESTIC PRODUCT (at Factor Cost)

in Constant Prices of 1972/73  
(in millions of Taka)

	1969/70	1970/71	1971/72	1972/73	1973/74	1974/75	1975/76	1976/77	1977/78
<u>Agriculture</u>	<u>31,836</u>	<u>30,401</u>	<u>27,146</u>	<u>27,220</u>	<u>30,307</u>	<u>29,701</u>	<u>32,627</u>	<u>32,161</u>	<u>34,542</u>
<u>Industry</u>	<u>6,782</u>	<u>5,407</u>	<u>2,875</u>	<u>4,927</u>	<u>4,787</u>	<u>5,756</u>	<u>6,486</u>	<u>7,316</u>	<u>8,207</u>
Mining and manufacturing	4,281	3,629	1,990	3,298	3,784	3,735	4,216	4,650	5,133
- Large and medium scale	(2634)	(2377)	(1281)	(2096)	(2429)	(2380)	(2712)	(3056)	(3444)
- Small scale	(1647)	(1252)	( 709)	(1202)	(1355)	(1355)	(1504)	(1594)	(1689)
Construction	2,377	1,664	812	1,444	744	1,756	1,954	2,306	2,663
Power and Gas	124	114	73	185	259	265	316	360	411
<u>Services</u>	<u>13,215</u>	<u>13,185</u>	<u>12,126</u>	<u>13,153</u>	<u>14,512</u>	<u>15,141</u>	<u>16,390</u>	<u>16,961</u>	<u>18,091</u>
Transport	2,399	2,224	1,860	2,399	2,615	2,615	2,955	3,023	3,235
Trade	3,864	3,641	3,117	3,513	3,924	3,924	4,289	4,203	4,497
Banking and insurance	258	279	301	328	338	349	392	431	470
Housing	2,293	2,357	2,357	2,360	2,426	2,494	2,594	2,698	2,806
Other services	3,138	3,169	2,852	3,232	3,264	3,297	3,403	3,573	3,752
Public administration	1,263	1,515	1,639	1,321	1,945	2,462	2,757	3,033	3,331
<u>Gross Domestic Product, at factor cost</u>	<u>51,833</u>	<u>48,993</u>	<u>42,147</u>	<u>45,300</u>	<u>49,606</u>	<u>50,598</u>	<u>55,503</u>	<u>56,438</u>	<u>60,840</u>
Annual GDP Growth Rate, in %	3.3	-5.5	-14.0	7.5	9.5	2.0	9.7	1.7	7.8

Note: All estimates are provisional.

Source: Planning Commission.

TABLE 2.2  
SECTORAL CONTRIBUTION TO GDP, IN PERCENT

	<u>1969/70</u>	<u>1970/71</u>	<u>1971/72</u>	<u>1972/73</u>	<u>1973/74</u>	<u>1974/75</u>	<u>1975/76</u>	<u>1976/77</u>	<u>1977/78</u>
<u>Agriculture</u>	<u>61.42</u>	<u>62.05</u>	<u>64.41</u>	<u>60.09</u>	<u>61.10</u>	<u>58.70</u>	<u>58.78</u>	<u>56.98</u>	<u>56.78</u>
<u>Industry</u>	<u>13.08</u>	<u>11.04</u>	<u>6.82</u>	<u>10.88</u>	<u>9.65</u>	<u>11.38</u>	<u>11.69</u>	<u>12.96</u>	<u>13.49</u>
Mining and manufacturing	8.26	7.41	4.72	7.28	7.63	7.38	7.60	8.24	8.44
-Large and medium scale	(5.08)	(4.85)	(3.04)	(4.63)	(4.90)	(4.70)	(4.89)	(5.41)	(5.66)
-Small scale	(3.18)	(2.56)	(1.68)	(2.65)	(2.73)	(2.68)	(2.71)	(2.82)	(2.78)
Construction	4.59	3.40	1.93	3.19	1.50	3.47	3.52	4.09	4.38
Power and gas	0.24	0.23	0.17	0.41	0.52	0.52	0.57	0.64	0.68
<u>Services</u>	<u>25.50</u>	<u>26.91</u>	<u>28.77</u>	<u>29.04</u>	<u>29.25</u>	<u>29.92</u>	<u>29.53</u>	<u>30.05</u>	<u>29.74</u>
Transport	4.63	4.54	4.41	5.30	5.27	5.17	5.32	5.36	5.32
Trade	7.45	7.43	7.40	7.76	7.91	7.76	7.73	7.45	7.39
Banking and insurance	0.50	0.57	0.71	0.72	0.68	0.69	0.71	0.76	0.77
Housing	4.42	4.81	5.59	5.21	4.89	4.93	4.67	4.78	4.61
Other services	6.05	6.47	6.77	7.13	6.58	6.52	6.13	6.33	6.17
Public administration	2.44	3.09	3.89	2.92	3.92	4.87	4.97	5.37	5.48
<u>Gross Domestic Product, at factor cost</u>	<u>100.00</u>								

Source: Table 2.1

**TABLE 3.1**  
**MERCHANDISE EXPORTS** <sup>a/</sup>  
(Value figures in millions of US\$)

Commodities	Unit	1972/73			1973/74			1974/75			1975/76			1976/77			1977/78 <sup>b/</sup>		
		Quantity (million)	Unit Price (US\$)	Value															
Raw Jute	(bales)	2.83	44.50	126.0	2.66	46.60	124.0	1.55	55.50	86.0	2.35	52.00	121.3	2.35	53.20	125.0	1.67	57.50	97.0
Jute Goods	(tons)	0.41	436.60	179.0	0.44	440.90	194.0	0.38	560.50	213.0	0.437	416.00	182.0	0.454	436.60	198.2	0.522	472.00	248.0
Tea	(lbs.)	44.80	0.21	9.4	47.50	0.27	12.8	51.80	0.42	22.0	49.23	0.36	17.8	65.00	0.65	42.3	63.00	0.72	45.0
Leather		..	..	15.8	..	..	15.8	..	..	26.0	..	..	30.9	..	..	42.1	..	..	46.0
Fish and Shrimp		..	..	4.4	..	..	7.9	..	..	4.1	..	..	11.8	..	..	20.9	..	..	21.0
Other		..	..	5.6	..	..	7.1	..	..	6.9	..	..	16.8	..	..	31.5	..	..	40.0
<b>Total</b>		..	..	<u>340.0</u>	..	..	<u>361.6</u>	..	..	<u>358.0</u>	..	..	<u>380.6</u>	..	..	<u>460.0</u>	..	..	<u>497.0</u>

<sup>a/</sup> Export shipment.

<sup>b/</sup> Preliminary estimate.

Source: Planning Commission, Government of Bangladesh, and IBRD.

**TABLE 3.2**  
**MERCHANDISE IMPORTS** <sup>a/</sup>  
(Value figures in millions of US\$)

Commodities	Unit	1972/73			1973/74			1974/75			1975/76			1976/77			1977/78		
		Quantity (million)	Unit Price (US\$)	Value	Quantity (million)	Unit Price (US\$)	Value	Quantity (million)	Unit Price (US\$)	Value	Quantity (million)	Unit Price (US\$)	Value	Quantity (million)	Unit Price (US\$)	Value	Quantity (million)	Unit Price (US\$)	Value
<b>Consumer Goods</b>																			
Foodgrains	(tons)	2.78	115	320.8	1.67	199	332.9	2.29	238	554.1	1.47	249	366.2	0.81	181	146.8	1.64	144	235.6
Edible Oil	(tons)	..	..	..	0.017	675	11.3	0.05	768	37.9	0.061	678	41.4	0.041	549	22.5	0.071	683	48.5
Cotton Textiles	(yards)	..	..	..	59.0	..	18.5	..	..	9.1	..	..	15.8	..	..	11.6	..	..	21.4
<b>Intermediate Goods</b>																			
Petroleum Products	(tons)	0.13	44	5.7	0.731	86	63.1	0.45	126	56.6	0.404	126	51.1	0.285	121	34.6	0.323	126	40.7
Crude Petroleum	(tons)	0.73	24	17.5	0.346	60	20.7	0.819	121	98.7	0.842	89	75.1	1.032	103	106.3	1.155	108	125.0
Raw Cotton	(bales)	0.32	175	41.8	0.142	333	47.3	0.20	331	66.2	0.183	244	44.6	0.200	331	66.2	0.154	301	46.4
Cotton Yarn	(bales)	0.04	309	13.6	0.069	627	43.3	0.007	800	5.6	0.003	1,000	2.8	0.018	711	12.8	0.036	552	20.2
Fertilizer	(tons)	0.24	117	28.0	0.147	143	21.0	0.23	374	86.1	0.358	246	88.1	0.045	129	5.8	0.418	172	71.7
Cement	(tons)	0.32	22	7.0	0.115	44	5.0	0.33	75	24.6	0.222	47	10.4	0.211	45	9.5	0.392	50	19.5
Capital Goods		..	..	100.0	..	..	128.5	..	..	135.0	..	..	213.3	..	..	227.3	..	..	318.0
<b>Misc. Raw Materials &amp; Other</b>																			
Intermediate & Consumer Goods		..	..	192.6	..	..	233.6	..	..	338.5	..	..	356.9	..	..	221.2	..	..	402.0
<b>Total</b>				<b>727.0</b>			<b>925.0</b>			<b>1,402.4</b>			<b>1,265.7</b>			<b>864.6</b>			<b>1,349.0</b>

a/ Import shipments.

b/ Includes imports of edible oil and cotton textiles.

Source: Planning Commission, Government of Bangladesh and IERD.

TABLE 3.3

IMPORT AND EXPORT PRICE INDICES  
(1972/73 = 100)

	<u>1973/74</u>	<u>1974/75</u>	<u>1975/76</u>	<u>1976/77</u>	<u>1977/78</u>
<b>A. <u>IMPORT PRICE INDICES</u></b>					
Foodgrains	160.9	207.0	216.5	157.4	124.3
Edible Oil	149.1	157.8	139.3	110.3	138.5
Petroleum Products	215.9	286.4	286.4	279.5	288.6
Crude Petroleum	358.3	504.2	370.8	441.6	450.0
Raw Cotton	76.0	189.1	139.4	205.3	170.9
Cotton Yarn	178.6	258.9	323.6	229.8	178.6
Fertilizer	161.5	319.7	210.3	113.8	147.0
Cement	204.5	340.9	213.6	213.6	231.8
Capital Goods	115.0	130.0	146.8	147.5	158.0
Others	197.5	232.3	193.2	216.4	231.5
<u>Weighted Average</u>	<u>156.9</u>	<u>215.4</u>	<u>195.8</u>	<u>189.1</u>	<u>180.2</u>
<b>B. <u>EXPORT PRICE INDICES</u></b>					
Raw Jute	104.7	124.7	116.9	111.2	129.2
Jute Goods	101.0	128.4	95.3	87.7	108.1
Tea	128.6	200.0	171.4	261.0	347.6
Others	122.2	158.9	132.1	216.0	230.0
<u>Weighted Average</u>	<u>104.6</u>	<u>132.9</u>	<u>108.7</u>	<u>117.7</u>	<u>136.7</u>
<b>C. <u>TERMS OF TRADE</u></b>	<u>66.7</u>	<u>61.7</u>	<u>55.5</u>	<u>62.2</u>	<u>75.8</u>

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Note: The weights used are respective years' value in 1972/73 prices.

Source: Planning Commission and IBRD

TABLE 3.4

INTERNATIONAL RESERVES AND OUTSTANDING COMMERCIAL & IMF BORROWINGS  
(million US\$; end of period)

	RESERVES			COMMERCIAL & IMF BORROWINGS				
	Cash	Securities <sup>a/</sup>	Total	Foreign Banks	Total	Regular Facility	IMF Compensatory Financing	Oil Facility
<u>1973</u>								
I	12.4	180.4	192.8	n.a.	75.4	..	75.4 <sup>b/</sup>	.
II	2.8	142.3	145.1	n.a.	75.6	.3	75.4	.
III	31.6	146.7	178.3	n.a.	76.0	.6	75.4	.
IV	1.5	132.5	134.0	n.a.	76.3	.9	75.4	.
<u>1974</u>								
I	8.6	91.1	99.7	n.a.	76.8	1.4	75.4	.
II	23.4	41.3	64.7	n.a.	112.6	37.2 <sup>c/</sup>	75.4	.
III	4.3	42.1	46.7	n.a.	125.7	36.7	74.2	14.8
IV	7.3	129.3	136.6	26.1	164.7	38.7	76.5	49.5
<u>1975</u>								
I	25.8	211.3	237.1	22.9	181.7	39.5	78.0	64.2
II	2.4	254.1	256.5	20.7	181.7	40.7	77.3	63.7
III	4.4	166.9	171.3	20.3	171.1	38.3	72.8	60.0
IV	6.5	131.9	138.4	-	202.2	38.5	73.2	90.5
<u>1976</u>								
I	2.5	146.5	149.0	-	247.2	85.5	72.3	89.4
II	4.0	209.2	213.2	20.4	252.9	84.8	62.7	105.4
III	8.6	245.5	254.1	20.6	283.2	86.4	90.4	106.4
IV	5.7	232.0	288.7	20.8	275.3	86.7	81.7	106.9
<u>1977</u>								
I	58.6	220.8	279.4	20.9	265.6	86.5	72.5	106.6
II	2.0	291.8	293.8	nil	248.0	77.0	63.8	107.2
III	23.4	247.5	270.9	25.0	238.3	76.7	54.6	107.0
IV	7.2	228.1	235.3	25.0	237.6	79.3	47.5	110.8
<u>1978</u>								
I	6.9	236.3	243.2	25.0	238.7	80.7	48.3	109.7
II	18.0	250.9	268.9	25.0	235.2	80.9	48.4	105.9

<sup>a/</sup> Includes Treasury Bills, Securities, IBRD Bonds and SDR holdings.

<sup>b/</sup> First drawn in December 1972.

<sup>c/</sup> Drawn in June 1974.

Source: Bangladesh Bank and IMF.

**TABLE 3.5**  
**SUMMARY OF EXTERNAL ASSISTANCE TO BANGLADESH**  
**DECEMBER 17, 1971 - JUNE 30, 1978**  
(million US\$)

Type of Assistance	1971/72		1972/73		1973/74		1974/75		1975/76		1976/77		1977/78	
	Aid Committed	Disbursed												
Food	145	103	250	121	180	300	460	379	257	307	130	106	140	190
Commodity	259	117	327	217	205	186	419	386	355	378	228	188	414	352
Project	187	7	396	82	202	134	406	145	318	129	238	147	606	255
Cash	-	-	-	-	-	-	14	14	-	-	61	61	- a/	- a/
<b>Total</b>	<b>591</b>	<b>227</b>	<b>973</b>	<b>420</b>	<b>587</b>	<b>640</b>	<b>1,299</b>	<b>924</b>	<b>930</b>	<b>814</b>	<b>657</b>	<b>502</b>	<b>1,160</b>	<b>797</b>

a/ Included in commodity aid.

Source: Planning Commission.

**TABLE 4.1 - BANGLADESH**

**EXTERNAL PUBLIC DEBT OUTSTANDING INCLUDING UNDISBURSED AS OF JUNE 30, 1978**

INCLUDES ONLY DEBT COMMITTED JAN. 1, 1960 - JUN. 30, 1978  
DEBT REPAYABLE IN FOREIGN CURRENCY AND GOODS  
(IN THOUSANDS OF U.S. DOLLARS)

TYPE OF CREDITOR CREDITOR COUNTRY	DEBT OUTSTANDING : IN ARREARS				
	DISBURSED	UNDISBURSED	TOTAL	PRINCIPAL	INTEREST
<b>SUPPLIERS CREDITS</b>					
JAPAN	4,810	-	4,810	-	-
TURKEY	1,000	-	1,000	-	-
UNITED KINGDOM	10,666	-	10,666	-	-
USSR	58,292	11,479	69,771	-	-
YUGOSLAVIA	36,684	17,939	54,623	-	-
<b>TOTAL SUPPLIERS CREDITS</b>	<b>111,452</b>	<b>29,418</b>	<b>140,870</b>	-	-
<b>FINANCIAL INSTITUTIONS</b>					
AUSTRIA	6,176	-	6,176	-	-
FRANCE	10,396	14,896	25,292	-	-
SINGAPORE	2,377	-	2,377	-	-
UNITED KINGDOM	448	-	448	-	-
UNITED STATES	6,500	-	6,500	-	-
<b>TOTAL FINANCIAL INSTITUTIONS</b>	<b>25,897</b>	<b>14,896</b>	<b>40,793</b>	-	-
<b>MULTILATERAL LOANS</b>					
ASIAN DEV. BANK	49,935	222,519	272,454	-	-
IBRD	54,896	-	54,896	-	-
IDA	554,155	374,260	928,415	-	-
ISLAMIC DEV. BANK	-	1,767	1,767	-	-
OPEC FUND	13,900	3,500	17,400	-	-
<b>TOTAL MULTILATERAL LOANS</b>	<b>672,886</b>	<b>602,046</b>	<b>1,274,932</b>	-	-
<b>BILATERAL LOANS</b>					
BELGIUM	11,099	4,951	16,050	-	-
BULGARIA	362	846	1,208	-	-
CHINA, P. R. OF	1,300	54,113	55,413	-	-
CZECHOSLOVAKIA	15,620	18,252	33,872	-	-
DENMARK	15,378	3,235	18,613	-	-
FINLAND	2,192	-	2,192	-	-
FRANCE	11,340	14,876	26,416	-	-
GERMAN DEM. REP.	5,052	13,550	18,602	-	-
GERMANY, FED. REP. OF	287,317	135,609	422,926	-	4,339
HUNGARY	-	10,000	10,000	-	-
INDIA	86,400	5,865	92,265	-	-
IRAN	4,852	7,648	12,500	-	-
IRAQ	24,737	20,000	44,737	-	-
JAPAN	366,667	148,221	514,888	-	-
KUWAIT	14,679	17,001	31,680	-	-
NETHERLANDS	34,932	12,101	47,033	-	-
POLAND	1,807	344	2,151	-	-
ROMANIA	9,972	5,516	15,488	-	-
SAUDI ARABIA	-	50,000	50,000	-	-
TURKEY	3,093	-	3,093	-	-
UNITED ARAB EMIRATES	56,818	18,896	75,714	-	-
UNITED KINGDOM	25,778	3,864	29,642	-	-
UNITED STATES	715,374	79,822	795,196	-	-
USSR	50,469	53,784	104,253	-	-
<b>TOTAL BILATERAL LOANS</b>	<b>1,745,438</b>	<b>678,494</b>	<b>2,423,932</b>	-	<b>4,339</b>
<b>TOTAL EXTERNAL PUBLIC DEBT</b>	<b>2,555,673</b>	<b>1,324,854</b>	<b>3,880,527</b>	-	<b>4,339</b>

NOTES: (1) ONLY DEBTS WITH AN ORIGINAL OR EXTENDED MATURITY OF OVER ONE YEAR ARE INCLUDED IN THIS TABLE.  
(2) DEBT OUTSTANDING INCLUDES PRINCIPAL IN ARREARS BUT EXCLUDES INTEREST IN ARREARS.  
(3) THE FOLLOWING UNCOMMITTED PARTS OF FRAME AGREEMENTS AND STANDBYS ARE NOT INCLUDED IN THIS TABLE.

<b>BILATERAL LOANS</b>	
BULGARIA	6,232
GERMANY, FED. REP. OF	145
ROMANIA	31,751
<b>TOTAL</b>	<b>38,128</b>
<b>TOTAL UNCOMMITTED FRAME AGREEMENTS AND STANDBYS</b>	<b>38,128</b>

EXTERNAL DEBT DIVISION  
ECONOMIC ANALYSIS AND PROJECTIONS DEPARTMENT

**TABLE 4.2 - BANGLADESH**

**SERVICE PAYMENTS, COMMITMENTS, DISBURSEMENTS AND OUTSTANDING AMOUNTS OF EXTERNAL PUBLIC DEBT**

**PROJECTIONS BASED ON DEBT OUTSTANDING INCLUDING UNDISBURSED AS OF JUNE 30, 1978**

INCLUDES ONLY DEBT COMMITTED JAN. 1, 1960 - JUN. 30, 1978  
DEBT REPAYABLE IN FOREIGN CURRENCY AND GOODS  
(IN THOUSANDS OF U.S. DOLLARS)  
TOTAL

FISCAL YEAR	DEBT OUTSTANDING AT BEGINNING OF PERIOD		TRANSACTIONS DURING PERIOD					OTHER CHANGES	
	DISBURSED ONLY	INCLUDING UNDISBURSED	COMMITMENTS	DISBURSEMENTS	SERVICE PAYMENTS			CANCEL-LATIONS	ADJUST-MENT *
	(1)	(2)	(3)	(4)	PRINCIPAL (5)	INTEREST (6)	TOTAL (7)	(8)	(9)
1973/74	228,270	667,857	460,248	292,975	9,834	7,331	17,165	182	-21,139
1974/75	500,530	1,096,950	973,156	528,394	23,765	10,143	33,908	1,497	356,434
1975/76	1,366,003	2,401,278	533,254	569,500	67,455	23,285	90,740	11,668	-97,726
1976/77	1,812,316	2,757,683	341,149	272,306	30,436	28,669	59,105	27,494	53,333
1977/78	2,065,689	3,094,235	683,925	410,902	34,839	31,931	66,770	51,782	188,990
1978/79	2,555,673	3,880,529	-	409,384	77,960	44,231	122,191	-	1
1979/80	2,887,100	3,802,570	-	324,219	49,023	46,937	95,960	-	3
1980/81	3,162,304	3,753,550	-	248,347	53,199	50,153	103,352	-	-4
1981/82	3,357,436	3,700,347	-	164,511	51,401	51,757	103,158	-	8
1982/83	3,470,555	3,648,954	-	85,446	58,885	52,217	111,102	-	-5
1983/84	3,497,102	3,590,061	-	44,379	70,735	51,820	122,555	-	6
1984/85	3,470,754	3,519,335	-	26,640	83,572	53,232	136,804	-	-1
1985/86	3,414,121	3,435,762	-	15,584	97,321	52,489	149,810	-	-4
1986/87	3,332,378	3,338,437	-	4,437	101,054	50,257	151,311	-	9
1987/88	3,235,770	3,237,392	-	1,318	112,989	51,214	164,203	-	4
1988/89	3,124,103	3,124,407	-	304	115,153	48,713	163,876	-	3
1989/90	3,009,247	3,009,247	-	-	116,301	47,886	164,187	-	-11
1990/91	2,892,935	2,892,935	-	-	110,671	45,583	156,254	-	-2
1991/92	2,782,262	2,782,262	-	-	103,435	43,438	146,873	-	5
1992/93	2,678,832	2,678,832	-	-	103,197	41,461	144,658	-	5
1993/94	2,575,640	2,575,640	-	-	105,833	39,489	145,322	-	1
1994/95	2,469,808	2,469,808	-	-	107,632	37,544	144,576	-	4
1995/96	2,362,780	2,362,780	-	-	107,844	35,613	143,457	-	-
1996/97	2,254,936	2,254,936	-	-	111,679	33,691	145,370	-	5
1997/98	2,143,262	2,143,262	-	-	109,347	31,750	141,097	-	4

\*\*\*\*\* THE FOLLOWING FIGURES ARE PROJECTED \*\*\*\*\*

- NOTES: 1) INCLUDES SERVICE ON ALL DEBT LISTED IN TABLE 4.1.  
2) THE ADJUSTMENT COLUMN ALSO INCLUDES THE PREINDEPENDENCE LIABILITIES ASSUMED BY BANGLADESH.

\* THIS COLUMN SHOWS THE AMOUNT OF ARITHMETIC IMBALANCE IN THE AMOUNT OUTSTANDING INCLUDING UNDISBURSED FROM ONE YEAR TO THE NEXT. THE MOST COMMON CAUSES OF IMBALANCES ARE CHANGES IN EXCHANGE RATES AND TRANSFER OF DEBTS FROM ONE CATEGORY TO ANOTHER IN THE TABLE.

EXTERNAL DEBT DIVISION  
ECONOMIC ANALYSIS AND PROJECTIONS DEPARTMENT

TABLE 5.1

SUMMARY OF CENTRAL GOVERNMENT FINANCE  
(Taka million)

	1972/73		1973/74		1974/75		1975/76		1976/77		1977/78		1978/79
	Budget	Revised	Budget	Revised	Budget	Revised	Budget	Revised	Budget	Revised	Budget	Revised	Budget
<u>Revenue</u>	2,916	2,236	4,113	3,939	5,594	6,837	7,554	8,826	9,823	9,961	11,727	12,446	14,059
of which													
Tax Revenue	2,684	1,866	3,459	3,091	4,558	5,479	5,965	6,718	7,675	7,633	9,184	9,842	11,283
Non-Tax Revenue	231	370	654	848 <sup>a/</sup>	1,036	1,358	1,589	2,108	2,148	2,328	2,543	2,604	2,776
<u>Current Expenditures</u>	2,184	2,914	2,953	4,425 <sup>a/</sup>	4,908	5,655	5,992	6,837	7,679	8,216	9,063	10,360	10,531
of which Food Subsidy	-	783	-	963	600	916	1,006	1,006	840	760	696	1,060	729
<u>Current Surplus (+) or Deficit (-)</u>	732	-678	1,160	-486	686	1,182	1,562	1,989	2,144	1,745	2,664	2,086	3,528
<u>Development Expenditures</u> <sup>b/</sup>	5,010	3,978	5,253	3,050 <sup>e/</sup>	5,250	3,932 <sup>e/</sup>	9,500	8,500 <sup>e/</sup>	12,220 <sup>f/</sup>	10,360	11,907	12,522	14,458
Agriculture, Rural Development & Water	1,792	1,350	1,600	..	1,615	..	2,990	..	3,630	3,448 <sup>i/</sup>	3,749 <sup>i/</sup>	3,982 <sup>i/</sup>	4,385 <sup>i/</sup>
Industries	366	294	790	..	710	..	1,360	..	2,460	1,480	1,900	1,900	2,419
Transport, Communication & Power	1,431	1,157	1,678	..	1,685	..	3,105	..	3,950	3,582	4,103	3,940	4,481
Physical Planning & Housing <sup>c/</sup>	299	307	410	..	480	..	945	..	870	710	1,046	950	1,091
Social Sectors <sup>d/</sup>	1,122	870	775	..	660	..	1,100	..	1,310	1,190	1,529	1,750	2,082
<u>Overall Deficit (-)</u>	-4,278	-4,656	-4,093	-3,536	-4,564	-2,750	-7,938	-6,511	-9,260	8,615	9,243	-10,436	-10,930
Financed by:													
Capital Receipts (net)	-82	640	387	60	306	-1,256	941	272	107	449 <sup>B/</sup>	288 <sup>h/</sup>	305	-308
Deficit Financing	610	833	186	496	318	996	-	999	-	-	-2	923	-5
Foreign Grants & Loans	3,750	3,183	3,520	2,980	3,940	3,010	7,000	5,240	9,156	8,168	8,957	9,208	11,243
of which:													
Food Aid	(1,050)	(n.a.)	(630)	(750)	(1,040)	(n.a.)	(1,350)	(-1,050)	(1,710)	(1,868)	(1,307)	(1,338)	(1,813)
Commodity Aid	(		(1,600)	(1,320)	(1,630)	(n.a.)	(3,650)	(4,350)	(4,500)	(3,785)	(4,244)	(4,000)	(4,780)
Project Aid	(2,700)	(n.a.)	(1,200)	(910)	(1,270)	(n.a.)	(2,000)	(1,940)	(2,946)	(2,515)	(3,406)	(3,870)	(4,650)
Balance (surplus (-))	-	-	-	-	-	-	-	-	-3	-2	-3	-	-

Note: The Railway budget has been included in Central Government budget's current revenue and expenditure from 1974/75 onwards. Also beginning 1974/75, the central budget includes estimates for food subsidies. Current (revenue) expenditures are those on non-development account only.

a/ Include the Railway receipts and payments (comparable to the following years).

b/ Including Reconstruction and Rehabilitation expenditures for 1972/73 and 1973/74. Including current development expenditures.

c/ Includes expenditures on Cyclone Reconstruction.

d/ Includes Health, Education, Population, Planning, Manpower and Employment, Social Welfare, Development Board and Miscellaneous expenditure.

e/ The breakdown is not available.

f/ Realizable expenditure is estimated at Tk. 11,404 million; this is the figure used to derive the overall deficit.

g/ Tk. 350 million from previously accumulated balances of autonomous bodies included.

h/ Includes Tk. 244 million to be mobilized from sales of debentures of some autonomous bodies.

i/ Including Food for Work Program.

Source: Ministry of Finance, the National Board of Revenue and the Planning Commission.

TABLE 5.2  
CENTRAL GOVERNMENT CURRENT REVENUE  
(Taka million)

	1972/73		1973/74		1974/75		1975/76		1976/77		1977/78		1978/79					
	Actual	%	Actual	%	Actual	%	Revised Budget	%	Budget	%	Revised Budget	%	Budget	%				
<b>TAX REVENUE</b>	<b>1,865</b>	<b>83.4</b>	<b>3,091</b>	<b>78.5</b>	<b>5,479</b>	<b>80.1</b>	<b>6,718</b>	<b>76.1</b>	<b>7,675</b>	<b>78.1</b>	<b>7,633</b>	<b>76.6</b>	<b>9,175</b>	<b>78.2</b>	<b>9,842</b>	<b>79.1</b>	<b>11,283</b>	<b>80.2</b>
Production, Consumption and Distribution Taxes	1,601	71.6	2,611	66.3	4,288	62.7	5,730	64.9	6,498	66.2	6,401	64.2	7,667	65.4	8,332	66.9	9,575	68.1
Custom Duties	(697)	(31.2)	(1,187)	(30.1)	(1,517)	(26.5)	(2,602)	(29.5)	(3,130)	(31.9)	(2,890)	(29.0)	(3,911)	(33.4)	(3,950)	(31.7)	(4,931)	(35.1)
Import License Tax <u>a/</u>					(298)													
Excise Duties	(550)	(24.6)	(836)	(21.2)	(1,503)	(22.1)	(1,780)	(20.2)	(2,000)	(20.4)	(2,030)	(20.4)	(2,275)	(19.4)	(2,300)	(18.5)	(2,417)	(17.2)
Sales Taxes	(214)	(19.6)	(434)	(11.0)	(619)	(9.1)	(1,105)	(12.5)	(1,135)	(11.6)	(1,230)	(12.3)	(1,230)	(10.5)	(1,770)	(14.2)	(1,898)	(13.5)
Stamps	(98)	(4.4)	(112)	(2.8)	(270)	(3.9)	(170)	(1.9)	(160)	(1.6)	(160)	(1.6)	(160)	(1.4)	(210)	(1.7)	(220)	(1.5)
Motor Vehicle Taxes	(13)	(0.6)	(17)	(0.5)	(17)	(0.2)	(12)	(0.1)	(13)	(0.1)	(13)	(0.1)	(13)	(0.1)	(20)	(0.2)	(27)	(0.2)
Entertainment Taxes	(29)	(1.3)	(25)	(0.7)	(64)	(0.9)	(60)	(0.7)	(60)	(0.6)	(78)	(0.8)	(78)	(0.7)	(82)	(0.6)	(82)	(0.6)
Taxes on Income	141	6.3	332	8.4	677	9.9	804	9.1	919	9.3	1,044	10.4	1,186	10.1	1,240	10.0	1,408	10.0
Individual Company	(136)	(6.1)	(322)	(8.2)	(614)	(9.0)	(603)	(6.8)	(661)	(6.7)	(808)	(8.1)	(921)	(7.9)	(965)	(7.8)	(1,081)	(7.7)
Agriculture <u>b/</u>	(3)	(0.1)	(9)	(0.2)	(62)	(0.9)	(201)	(2.3)	(216)	(2.2)	(233)	(2.3)	(264)	(2.2)	(275)	(2.2)	(327)	(2.3)
Land Revenue <u>c/</u>	25	1.1	55	1.4	87	1.3	106	1.3	65	0.7	179	1.8	300	2.6	250	2.0	280	2.0
Other Taxes and Duties <u>d/</u>	98	4.4	93	2.4	427	6.2	78	0.8	190 <sup>h/</sup>	1.9	9	0.1	22	0.2	20	0.2	20	0.1
<b>NON-TAX REVENUE</b>	<b>370</b>	<b>16.6</b>	<b>848</b>	<b>21.5</b>	<b>1,358</b>	<b>19.9</b>	<b>2,108</b>	<b>23.9</b>	<b>2,148</b>	<b>21.9</b>	<b>2,328</b>	<b>23.4</b>	<b>2,552</b>	<b>21.8</b>	<b>2,604</b>	<b>20.9</b>	<b>2,776</b>	<b>19.8</b>
Nationalized Sector	191	8.6	87	2.2	127	1.9	352	4.0	248	2.5	285	2.9	356	3.0	599	4.8	583	4.1
Industries	1	-	(30)	(0.8)	(99)	(1.4)	(73)	(0.8)	(73)	(0.7)	10	(0.1)	(100)	(0.9)	(250)	(2.0)	(250)	(1.8)
Banks			(57)	(1.4)	(28) <sup>g/</sup>	(0.5)	(261)	(3.0)	(153)	(1.6)	250	(2.6)	(228)	(1.9)	(337)	(2.7)	(321)	(2.3)
Other Public Sector <u>e/</u>	-	-	(-)	(-)	(-)	(-)	(18)	(0.2)	(22)	(0.2)	25	(0.2)	(28)	(0.2)	(12)	(0.1)	(12)	(-)
Interest Receipts	7	0.3	107	2.7	169	2.5	736	8.4	793	8.1	854	8.6	977	8.3	816	6.6	708	5.0
Registration Fees	32	1.5	45	1.1	110	1.6	100	1.1	80	0.8	90	0.9	90	0.8	105	0.8	107	0.8
Forest	14	0.6	35	0.9	47	0.7	45	0.5	45	0.5	70	0.7	70	0.6	100	0.8	135	1.0
Railways			309	7.8	396	5.8	307	3.5	581	6.0	545	5.5	576	4.9	596	4.8	768	5.5
Post Office, Telephone and Telegraph (Net)	-28	-1.3	18	0.5	-5	-0.1	19	0.2	69	0.7	-2	-	22	0.2	-37	-0.3	-58	-0.4
Other <u>f/</u>	154	6.9	247	6.3	514	7.5	549	6.2	322	3.3	476	5.8	461	3.9	425	3.4	533	3.8
<b>TOTAL CURRENT REVENUE</b>	<b>2,235</b>	<b>100.0</b>	<b>3,939</b>	<b>100.0</b>	<b>6,837</b>	<b>100.0</b>	<b>8,826</b>	<b>100.0</b>	<b>9,823</b>	<b>100.0</b>	<b>9,961</b>	<b>100.0</b>	<b>11,727</b>	<b>100.0</b>	<b>12,446</b>	<b>100.0</b>	<b>14,059</b>	<b>100.0</b>

a/ Tax was imposed in June 1974 and abolished in May 1975.

b/ The moratorium on collection of agricultural income tax which was imposed in FY74 for two years was extended for another year in FY76 and collections shown represent arrears in payment. Beginning FY76, agricultural income has been subjected to a moderate tax.

c/ Tax levied on land holdings. It was virtually abolished in FY74 together with the imposition of the moratorium on agricultural income tax but reinstated in 1976/77; the exemption from the tax was extended to holdings up to 8.3 acres (25 bighas).

d/ Include electricity duties, estate duty on agricultural land, taxes on immovable property, gift taxes, capital gain tax, jute tax (abolished in May 1975), toll taxes, betterment tax on commercial establishments and other levies.

e/ Includes receipts of nationalized insurances, other industrial operations and disinvestment of Industrial units. For 1973/74 these are included under "Industries" above. Budget speech summary tables include these items in "Other Revenue" and not in the "Nationalized Sectors".

f/ Receipts of various Government departments, especially under civil works, education and health.

g/ Included under Industries.

h/ Includes effects of new tax measures.

Source: Ministry of Finance.

**TABLE 5.3**  
**CENTRAL GOVERNMENT CURRENT EXPENDITURE**  
(Taka million)

	1972/73		1973/74		1974/75		1975/76				1976/77				1977/78				1978/79	
	Actual	%	Actual	%	Revised Budget	%	Budget	%	Revised Budget	%	Budget	%	Revised Budget	%	Budget	%	Revised Budget	%	Budget	%
<b>General Services</b>	<b>1,268</b>	<b>43.5</b>	<b>1,808</b>	<b>40.9</b>	<b>2,315</b>	<b>40.9</b>	<b>2,253</b>	<b>37.6</b>	<b>3,196</b>	<b>46.7</b>	<b>3,471</b>	<b>45.2</b>	<b>4,292</b>	<b>52.3</b>	<b>3,912</b>	<b>43.2</b>	<b>5,276</b>	<b>50.9</b>	<b>5,017</b>	<b>47.6</b>
General Administration	370	25.1	863	11.2	968	17.2	738	12.3	1,095	16.0	1,155	15.0	1,599	19.5	1,430	15.8	2,163	20.9	2,081	19.7
Justice and Police	310	10.6	495	11.2	598	10.5	724	12.1	616	9.0	723	9.4	944	11.5	808	8.9	1,056	10.2	1,116	10.6
Defense	203	7.0	421	9.5	710	12.5	752	12.5	1,447	21.1	1,551	20.2	1,702	20.7	1,624	17.9	2,001	19.3	1,756	16.7
Scientific Departments	23	0.8	29	0.7	39	0.7	39	0.7	38	0.6	42	0.6	47	0.6	50	0.6	56	0.5	64	0.6
<b>Social Services</b>	<b>584</b>	<b>20.0</b>	<b>821</b>	<b>18.5</b>	<b>1,025</b>	<b>18.1</b>	<b>1,182</b>	<b>19.7</b>	<b>1,225</b>	<b>18.0</b>	<b>1,347</b>	<b>17.5</b>	<b>1,365</b>	<b>16.6</b>	<b>1,567</b>	<b>17.3</b>	<b>1,857</b>	<b>17.9</b>	<b>1,929</b>	<b>18.3</b>
Education	451	15.5	649	14.7	822	14.5	897	15.0	930	13.6	1,020	13.3	1,021	12.4	1,138	12.5	1,353	13.0	1,390	13.2
Health	118	4.0	153	3.4	181	3.2	258	4.3	243	3.6	273	3.5	294	3.6	377	4.2	413	4.0	469	4.4
Social Welfare	15	0.5	19	0.4	22	0.4	27	0.4	52	0.8	54	0.7	50	0.6	52	0.6	91	0.9	70	0.7
<b>Economic Services</b>	<b>145</b>	<b>5.0</b>	<b>371</b>	<b>8.4</b>	<b>706</b>	<b>12.5</b>	<b>423</b>	<b>7.1</b>	<b>464</b>	<b>6.8</b>	<b>514</b>	<b>6.7</b>	<b>543</b>	<b>6.6</b>	<b>561</b>	<b>6.2</b>	<b>726</b>	<b>7.0</b>	<b>703</b>	<b>6.7</b>
Agriculture	58	2.0	97	2.2	114	2.0	121	2.0	117	1.7	117	1.5	117	1.4	112	1.2	142	1.4	143	1.4
Manufacturing and Construction Transport and Communication	5	0.2	110	2.5	326	5.8	138	2.3	160	2.3	179	2.3	180	2.2	189	2.1	222	2.1	260	2.5
Communication	82	2.8	164	3.7	258	4.7	164	2.8	187	2.8	218	2.9	246	3.0	260	2.9	362	3.5	300	2.8
<b>Debt Service</b>	<b>134</b>	<b>4.6</b>	<b>183</b>	<b>4.1</b>	<b>313</b>	<b>5.5</b>	<b>389</b>	<b>6.5</b>	<b>438</b>	<b>6.4</b>	<b>526</b>	<b>6.9</b>	<b>689</b>	<b>8.4</b>	<b>741</b>	<b>8.2</b>	<b>707</b>	<b>6.8</b>	<b>858</b>	<b>8.1</b>
<b>Food Subsidy</b>	<b>783</b>	<b>26.9</b>	<b>963</b>	<b>21.8</b>	<b>916</b>	<b>16.2</b>	<b>1,006</b>	<b>16.8</b>	<b>1,006</b>	<b>14.7</b>	<b>840</b>	<b>10.9</b>	<b>760</b>	<b>9.3</b>	<b>696</b>	<b>7.7</b>	<b>1,060</b>	<b>10.3</b>	<b>729</b>	<b>6.9</b>
<b>Railways</b>	<b>-</b>	<b>-</b>	<b>279</b>	<b>6.3</b>	<b>380</b>	<b>6.8</b>	<b>439</b>	<b>7.3</b>	<b>508</b>	<b>7.4</b>	<b>581</b>	<b>7.6</b>	<b>567</b>	<b>6.9</b>	<b>586</b>	<b>6.4</b>	<b>734</b>	<b>7.1</b>	<b>795</b>	<b>7.6</b>
<b>Contingency</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>300</b>	<b>5.0</b>	<b>-</b>	<b>-</b>	<b>400</b>	<b>5.2</b>	<b>-</b>	<b>-</b>	<b>1,000</b>	<b>11.0</b>	<b>-</b>	<b>-</b>	<b>500</b>	<b>4.8</b>
<b>TOTAL CURRENT EXPENDITURE</b>	<b>2,914</b>	<b>100.0</b>	<b>4,425</b>	<b>100.0</b>	<b>5,655</b>	<b>100.0</b>	<b>5,992</b>	<b>100.0</b>	<b>6,837</b>	<b>100.0</b>	<b>7,679</b>	<b>100.0</b>	<b>8,216</b>	<b>100.0</b>	<b>9,053</b>	<b>100.0</b>	<b>10,360</b>	<b>100.0</b>	<b>10,531</b>	<b>100.0</b>

Source: Ministry of Finance.

TABLE 5.4  
PUBLIC DEVELOPMENT EXPENDITURE BY SECTOR  
(Taka million)

	1972/73		1973/74		1974/75		1975/76		1976/77		1977/78		1978/79					
	Revised Budget	%	Budget	%	Revised Budget	%	Budget	%										
Agriculture, Rural Development and Water	1,350	33.9	1,579	34.0	1,784	34.0	2,990	31.5	3,625	29.7	3,148	31.3	3,348	29.1	3,480	28.9	3,820	27.5
Agriculture	-		( 576)	( 12.4)	( 639)	( 12.2)	( 1,150)	( 12.1)	( 1,635)	( 13.4)	( 1,529)	( 15.2)	( 1,514)	( 13.1)	( 1,540)	( 12.8)	( 1,810)	( 13.0)
Rural Development	-		( 306)	( 6.6)	( 285)	( 5.4)	( 480)	( 5.1)	( 490)	( 4.0)	( 420)	( 4.2)	( 482)	( 4.2)	( 510)	( 4.2)	( 630)	( 4.5)
Water and Flood Control	-		( 697)	( 15.0)	( 860)	( 16.4)	( 1,360)	( 14.3)	( 1,500)	( 7.3)	( 1,199)	( 11.9)	( 1,352)	( 11.8)	( 1,430)	( 11.9)	( 1,380)	( 10.0)
Industry	294	7.4	525	11.3	650	12.3	1,360	14.3	2,460	20.1	1,430	14.2	1,480	12.9	1,900	15.8	2,420	17.4
Power, Scientific Research and Natural Resources	)		537	11.6	712	13.6	1,510	15.9	1,888	15.5	1,313	13.0	1,764	15.3	1,680	14.0	2,010	14.5
Transport	)		965	20.9	812	15.7	1,250	13.2	1,646	13.5	1,962	19.5	1,815	15.7	1,760	14.6	1,970	14.2
Physical Planning and Housing	)		131	2.8	186	3.5	345	3.6	419	3.4	307	3.1	524	4.6	510	4.2	500	3.6
Education and Training	)		307	7.7	233	5.0	340	6.5	660	7.0	734	6.0	630	6.3	933	8.1	810	6.7
Health	)		307	5.6	288	5.5	450	4.7	555	4.5	473	4.7	562	4.9	580	4.9	720	5.2
Population Planning	)		207	4.5	218	4.0	330	3.5	377	3.1	320	3.2	383	3.3	430	3.6	500	3.6
Social Welfare	)		50	1.1	77	1.5	250	2.6	294	2.4	216	2.1	288	2.5	310	2.6	430	3.1
Manpower and Employment	)		870	21.9	21	0.5	40	0.4	40	0.3	29	0.3	33	0.3	50	0.4	70	0.5
Cyclone Reconstruction	)		3	-	13	0.2	30	0.3	42	0.3	20	0.2	42	0.4	40	0.3	70	0.5
Other	)		-	-	-	-	-	-	70	0.6	129	1.3	222	1.9	340	2.8	300	2.1
TOTAL DEVELOPMENT EXPENDITURE a/	<u>3,978</u>	<u>100.0</u>	<u>4,638</u>	<u>100.0</u>	<u>5,250</u>	<u>100.0</u>	<u>9,500</u>	<u>100.0</u>	<u>12,220</u>	<u>100.0</u>	<u>10,057</u>	<u>100.0</u>	<u>11,506</u>	<u>100.0</u>	<u>12,030</u>	<u>100.0</u>	<u>13,900</u>	<u>100.0</u>

Notes: The total expenditures in this table are not comparable with those in Table 5.1 because of the differences in the way the aggregates are defined.

Reported actual expenditures are: Tk. 2,674 million for 1972/73, Tk. 3,050 million for 1973/74 and Tk. 3,932 million for 1974/75. It is believed that these totals may understate the level of expenditure due to the provisional nature of some entries and the possibility of incomplete recording. Tk. 8,500 million is the revised estimate for 1975/76. Realizable expenditures in 1976/77 are estimated in the Budget at Tk. 11,404 million.

a/ Exclude expenditure on Food for Work Program.

Source: Ministry of Finance.

TABLE 6.1

MONEY SUPPLY AND CHANGES IN DOMESTIC LIQUIDITY  
(Taka million)

	<u>1971/72</u> Dec. 71- June 72	<u>1972/73</u> July 72- June 73	<u>1973/74</u> July 73- June 74	<u>1974/75</u> July 74- June 75	<u>1975/76</u> July 75- June 76	<u>1976/77</u> July 76- June 77	<u>1977/78</u> July 77- June 78
<u>MONEY SUPPLY (end of period<sup>a/</sup>)</u>							
Currency in Circulation	1,756	2,864	3,311	2,931	3,399	3,787	5,215
Demand Deposits	3,101	4,096	4,856	5,211	5,907	6,521	7,352
<u>Money Supply (M<sub>1</sub>)</u>	<u>4,857</u>	<u>6,960</u>	<u>8,167</u>	<u>8,142</u>	<u>9,306</u>	<u>10,307</u>	<u>12,567</u>
Time Deposits	2,135	2,931	3,998	4,732	5,478	7,999	9,646
<u>Broad Money (M<sub>2</sub>)</u>	<u>6,992</u>	<u>9,891</u>	<u>12,165</u>	<u>12,874</u>	<u>14,784</u>	<u>18,306</u>	<u>22,213</u>
Index of Money Supply (M <sub>1</sub> ) (Dec. 1971 = 100 <u>b/</u> )	125	180	211	210	240	266	324
<u>CHANGES IN DOMESTIC LIQUIDITY</u>							
Money Supply (M <sub>1</sub> )	982	2,103	1,207	-25	1,164	1,001	2,260
Currency in Circulation	(-310)	(1,108)	( 477)	(-381)	( 468)	( 388)	(1,428)
Demand Deposits	(1,292)	( 995)	( 760)	( 355)	( 696)	( 614)	( 831)
Time Deposits	550	796	1,067	734	746	2,521	1,647
<u>Total Domestic Liquidity (M<sub>2</sub>)</u>	<u>1,532</u>	<u>2,899</u>	<u>2,274</u>	<u>709</u>	<u>1,910</u>	<u>3,522</u>	<u>3,907</u>
<u>Domestic Credit</u>	<u>1,034</u>	<u>2,814</u>	<u>3,302</u>	<u>1,501</u>	<u>3,156</u>	<u>1,856</u>	<u>4,860</u>
Public Sector	1,500	3,004	2,775	1,548	2,258	197	2,929
Government <u>c/</u>	( 824)	(1,291)	(1,723)	( 229)	(1,175)	(-114)	(1,116)
Nationalized Industries <u>d/</u>	( 600)	(1,624)	( 789)	( 906)	} (1,083)	} ( 311)	} (1,813)
Other <u>e/</u>	( 89)	( 89)	( 263)	( 413)			
Private Sector	-466	-190	527	-47	898	1,658	1,931
<u>Foreign Sector</u>	<u>1,258</u>	<u>-188</u>	<u>-832</u>	<u>1,098</u>	<u>-1,179</u>	<u>1,645</u>	<u>-1,219</u>
<u>Other <u>f/</u></u>	<u>-760</u>	<u>273</u>	<u>-196</u>	<u>-1887</u> <u>g/</u>	<u>590</u>	<u>-144</u>	<u>-148</u>

Note: Provisional figures.

a/ For 1971-1975, end of period refers to the last Friday of the month; beginning with FY1975/76, it refers to the first business day of the following month.

b/ At Bangladesh's independence (December 17, 1971), the money supply M<sub>1</sub> stood at Tk. 3,875 million and broad money M<sub>2</sub> at Tk. 5,460 million.

c/ Investments of Bangladesh Bank and scheduled banks in government securities treasury bills, other government borrowings from Bangladesh Bank, borrowings by Food Department from the banking system, treasury advances and Government currency liability. (The scheduled banks include the six nationalized banks, the six foreign banks, Bangladesh Krishi Bank and Bangladesh Shilpa Bank.)

d/ Scheduled banks' credit to public sector, including Bangladesh Bank's investment in debentures of Jute Industries Corporation (Tk. 100 million in 1973/74 and Tk. 60 million in 1974/75).

e/ Scheduled banks' investments in autonomous and semi-autonomous organizations.

f/ Includes quantitatively unidentified elements mainly as a result of incomplete reporting by the scheduled banks.

g/ Includes effects of demonetization and devaluation.

Source: Bangladesh Bank

**TABLE 6.2**  
**SELECTED INTEREST RATES**  
(in percent per annum)

	December 1971- June 1974	July 1974- March 1976	April 1976- April 1977	May 1977- July 1977	Since August 1977
<b>Deposits</b>					
(1) Special notice account or deposits withdrawable at notice of 7 to 29 days	3	4	5	4	4
Special notice accounts or deposits withdrawable at notice of 30 days or over	3 1/4	4 1/4	5 1/4	4 1/4	4 1/4
(2) Savings bank accounts with checking facilities	4	5	6	6	4 1/2
Savings bank accounts without checking facilities, i.e. accounts withdrawals from which are allowed through withdrawal slips and on production of passbooks only	4 1/2	6	7	7	7
(3) Fixed (or term) deposits					
For 3 months and over but less than 6 months	4 1/2	6	7	7	7
For 6 months and over but less than 1 year	4 3/4	6 1/2	7 1/2	7 1/2	7 1/2 <u>f/</u>
For 1 year and over but less than 2 years	5	7 1/4	8 1/4	8 1/4	8 1/4 <u>f/</u>
For 2 years and over but less than 3 years	7 1/2	8 1/4	9 1/4	9 1/4	9 1/4
For 3 years and over	6	9 1/4	10 1/4	10 1/4	10 1/4
<b>Postal Savings</b>					
General	7 1/2	7 1/2	8 1/2	8 1/2	8 1/2
Fixed: For 1 year		8	9 1/4 <u>a/</u>	9 1/4	9 1/4
For 2 years		9	10 1/4 <u>a/</u>	10 1/4	10 1/4
For 3 years		10	11 1/4 <u>a/</u>	11 1/4	11 1/4
<b>Advances</b>					
Those extended by smaller banks	9	}12-13	}12-13	}11-12 <u>b/</u>	11-12
Those extended by larger banks	10				
Advances for jute, jute goods and tea	7 1/2	10 1/2	10 1/2	10 1/2	10 1/2
Advances for other export commodities			11 1/2 <u>c/</u>	10 1/2	10 1/2
<b>Bank Rate</b>					
General rate for borrowing from Bangladesh Bank	5	8 <u>d/</u>	8	8	8
Rate for borrowing by Bangladesh Krishi Bank	3	6	6	6	6
Rate for borrowing by Bangladesh Samabaya Bank (Apex Cooperative Bank)	3	6	6	6	6
<b>Industrial Lending</b>					
Lending rates of Bangladesh Shilpa Bank					
-short term loans	7	}12-13	}11 1/2-13 <u>e/</u>	11 1/2-12	11 1/2-12
-long term loans	8				
<b>Agricultural Lending</b>					
	<b>Borrowing</b>		<b>Lending</b>		
	Up to end 1973/74	Since July 1974	Up to end 1973/74	Since July 1974	
(a) Bangladesh Samabaya Bank (Apex Cooperative Bank)	3	6	(to central Coop. Banks) 4	7	
(b) Central Cooperative Banks	4	7	(to Primary Societies) 6	9	
(c) Primary Societies	6	9	(to farmers, etc.) 9	12	
(d) Bangladesh Krishi Bank	3	6	(short term) 7	11	
			(long term) 8	11 1/2	
<b>Money Lenders (Unorganized Sector)</b>					
Rates vary; typical annual rates are ----- 30 and up -----					

a/ Effective from July 1, 1976.

b/ Includes loans extended by BKB under the special Tk 1 billion agricultural program launched with effect from February 15, 1977.

c/ Effective from July 19, 1976.

d/ Effective from June 21, 1974.

e/ Since April 1976.

f/ Interest being paid at a rate of 1% above the existing rates on deposit accounts opened by individuals in rural areas since December 16, 1977.

**Notes:** The Bank Rate has been increased from June 21, 1974; rates on deposits and advances were increased effective July 1, 1974.

For deposits, Bangladesh Krishi Bank and Bangladesh Shilpa Bank (Agricultural Development Bank and Industrial Development Bank of Bangladesh, respectively) are allowed to quote 1 percent more than the rates given above. However, deposits with these institutions so far have been negligible because their services are more limited than those provided by commercial banks

For advances, the rates given are maximum rates. The nominal interest rate on advances to the private sector is on average about 10-11 percent. Effective rates are 2 to 3 percentage points higher because of margins (15 to 30 percent, depending on the creditworthiness of the borrower or on the type of commodity financed).

Agricultural loans are routed by the Bangladesh Samabaya Bank to farmers through the Central Cooperative Banks and the Primary Societies.

Source : Bangladesh Bank.

TABLE 7.1  
AREA UNDER MAIN CROPS  
(Million Acres)

<u>Crops</u>	<u>1969/70</u>	<u>1970/71</u>	<u>1971/72</u>	<u>1972/73</u>	<u>1973/74</u>	<u>1974/75</u>	<u>1975/76</u>	<u>1976/77</u>	<u>1977/78</u>
Rice	25.48	24.50	22.98	23.80	24.41	24.20	25.53	24.42	24.78
Aus	( 8.46)	( 7.89)	( 7.42)	( 7.24)	( 7.68)	( 7.86)	( 8.45)	( 7.95)	( 7.82)
Aman	(14.84)	(14.18)	(13.37)	(14.12)	(14.13)	(13.47)	(14.24)	(14.36)	(14.26)
Boro	( 2.18)	( 2.43)	( 2.19)	( 2.43)	( 2.60)	( 2.87)	( 2.84)	( 2.11)	( 2.70)
Wheat	0.30	0.31	0.31	0.30	0.30	0.31	0.37	0.40	0.47
Other Cereals	0.28	0.30	0.25	0.18	0.24	0.24	0.23	0.22	0.22
Pulses	0.91	0.92	0.89	0.78	0.70	0.76	0.75	0.82	..
Oilseeds	0.78	0.76	0.69	0.68	0.63	0.69	0.70	0.69	..
Rape and Mustard	( 0.54)	( 0.53)	( 0.47)	( 0.47)	( 0.44)	( 0.48)	( 0.48)	( 0.48)	(0.51)
Til and Linseed	( 0.16)	( 0.15)	( 0.15)	( 0.15)	( 0.14)	( 0.16)	( 0.17)	( 0.16)	( .. )
Groundnut	( 0.08)	( 0.08)	( 0.07)	( 0.06)	( 0.05)	( 0.05)	( 0.05)	( 0.05)	(0.06)
Jute	2.46	2.20	1.68	2.21	2.02	1.42	1.28	1.60	1.81
Spices	0.42	0.40	0.39	0.38	0.35	0.38	0.38	0.37	..
Sugarcane	0.40	0.40	0.35	0.32	0.36	0.38	0.33	0.36	0.38
Potato	0.21	0.21	0.19	0.19	0.20	0.23	0.24	0.19	0.22
Sweet Potato	0.18	0.18	0.17	0.16	0.15	0.16	0.18	0.17	0.18
Fruits and Vegetables	0.64	0.63	0.58	0.58	0.59	0.61	0.63	0.63	..
Cotton	0.03	0.02	0.03	0.04	0.02	0.02	0.02	0.01	0.01
Tea	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.10	..
Tobacco	0.11	0.11	0.10	0.12	0.11	0.11	0.12	0.17	0.14
Others	0.53	0.50	0.39	0.40	0.31	0.50	0.40	0.28 <sub>a/</sub>	..
<b>Total, all Crops</b>	<b>32.84</b>	<b>31.53</b>	<b>29.11</b>	<b>30.24</b>	<b>30.50</b>	<b>30.12</b>	<b>31.27</b>	<b>30.43<sub>a/</sub></b>	<b>..</b>
<b>Net Cropped Area Including Current Fallow</b>	<b>22.49</b>	<b>22.48</b>	<b>22.47</b>	<b>22.47</b>	<b>22.48</b>	<b>22.57<sub>a/</sub></b>	<b>22.56<sub>a/</sub></b>	<b>..</b>	<b>..</b>
<b>Cropping Intensity (%)</b>	<b>146</b>	<b>140</b>	<b>130</b>	<b>135</b>	<b>136</b>	<b>134</b>	<b>139</b>	<b>..</b>	<b>..</b>

.. =Not available.

a/ Provisional estimate.

Source: Agricultural Statistics Wing, Bangladesh Bureau of Statistics.

TABLE 7.2  
PRODUCTION OF MAIN CROPS  
(Thousands of Long Tons)

<u>Crops</u>	<u>1969/70</u>	<u>1970/71</u>	<u>1971/72</u>	<u>1972/73</u>	<u>1973/74</u>	<u>1974/75</u>	<u>1975/76</u>	<u>1976/77</u>	<u>1977/78</u>
Rice	11,816	10,968	9,780	9,930	11,700	11,109	12,561	11,567	12,990
Wheat	103	110	113	90	109	115	215	255	342
Gram and Pulses	293	296	269	222	208	223	220	230	..
Edible Oil Seeds	290	274	240	228	214	237	238	235	..
-Rape, Mustard and Tii	(163)	(163)	(112)	(133)	(122)	( 142)	(138)	(140)	( ..)
-Goundnut	(51)	(47)	(38)	(31)	(28)	(26)	(31)	(23)	(27)
Jute ('000 bales)	7,171	6,670	4,193	6,514	6,000	3,965	4,284	4,806	5,359
Potato	857	849	741	747	719	866	889	724	849
Sugarcane	7,417	7,598	5,686	5,318	6,342	6,635	5,886	6,401	6,670
Mesta ('000 bales)	220	131	93	110	106	54	62	67	75
Tea (mill. lbs.)	67	69	22	53	60	71	65	74	..
Tobacco	41	47	34	39	41	40	44	63	49

.. = Not available.

Source: Agricultural Statistics Wing, Bangladesh Bureau of Statistics.

TABLE 7.3  
YIELD OF MAIN CROPS  
(Maunds Per Acre)

<u>Crops</u>	<u>1969/70</u>	<u>1970/71</u>	<u>1971/72</u>	<u>1972/73</u>	<u>1973/74</u>	<u>1974/75</u>	<u>1975/76</u>	<u>1976/77</u>	<u>1977/78</u>
Rice	12.6	12.2	11.6	11.4	13.1	12.5	13.5	13.0	14.3
Aus	( 9.5)	( 9.9)	( 8.6)	( 8.5)	( 9.9)	( 9.9)	( 10.4)	(10.3)	(10.8)
Aman	( 12.7)	( 11.3)	( 11.9)	( 10.8)	( 12.9)	( 12.1)	( 13.5)	(13.1)	(14.2)
Boro	( 23.7)	( 24.6)	( 22.6)	( 23.2)	( 23.3)	( 21.3)	( 21.9)	(21.3)	(22.5)
Wheat	9.3	9.6	9.9	8.2	9.7	10.0	15.8	17.6	20.0
Gram and Pulses	8.7	8.7	8.2	7.7	8.1	7.9	7.9	7.6	..
Edible Oil Seeds									
-Rape and Mustard	6.6	6.7	5.1	6.0	6.1	6.4	6.3	6.4	..
-Groundnut	17.3	16.0	14.8	14.0	14.6	13.0	15.4	12.1	12.8
Jute	14.2	14.7	12.1	14.3	14.4	13.3	15.4	15.0	14.9
Potato	111.0	110.0	106.0	107.0	98.2	101.7	102.0	103.0	103.9
Sugarcane <u>a/</u>	504.0	516.0	442.0	452.0	473.6	475.9	487.8	487.7	477.7
Tea	7.4	7.6	2.4	5.8	6.6	7.4	7.4	8.8	..
Tobacco	10.0	9.5	9.2	8.8	9.6	9.6	10.0	10.1	9.7

.. = Not available.

a/ These official yield figures of sugarcane are considered to be too high by the Bangladesh Sugarcane Corporation and by the IBRD. Reasonable yield may be between 2/3 of these official figures.

Source: Agricultural Statistics Wing, Bangladesh Bureau of Statistics.

TABLE 7.4  
RICE: PRODUCTION, AREA, YIELD

	Production in Million Long Tons				Area in Million Acres				Average Yield Per Acre in Maunds			
	Aus	Aman	Boro	Total	Aus	Aman	Boro	Total	Aus	Aman	Boro	Average
1965/66	2.92	6.80	0.62	10.33	7.32	14.67	1.14	23.13	10.8	12.6	14.8	12.1
1966/67	2.67	5.92	0.83	9.42	6.96	14.06	1.39	22.41	10.4	11.5	16.2	11.4
1967/68	3.07	6.81	1.11	10.99	8.22	14.68	1.53	24.43	10.2	12.6	19.7	12.2
1968/69	2.68	6.87	1.61	11.16	7.66	14.40	2.01	24.07	9.5	13.0	21.8	12.6
1969/70	2.96	6.95	1.90	11.81	8.46	14.84	2.18	25.48	9.5	12.7	23.7	12.6
<u>5-Year Average</u>	<u>2.86</u>	<u>6.67</u>	<u>1.21</u>	<u>10.74</u>	<u>7.72</u>	<u>14.53</u>	<u>1.65</u>	<u>23.90</u>	<u>10.1</u>	<u>12.5</u>	<u>19.9</u>	<u>12.2</u>
1970/71	2.86	5.91	2.19	10.96	7.88	14.18	2.42	24.48	9.9	11.4	24.6	12.2
1971/72	2.34	5.70	1.74	9.78	7.42	13.37	2.19	22.98	8.6	11.9	22.6	11.6
1972/73	2.27	5.59	2.07	9.93	7.24	14.12	2.43	23.79	8.5	10.8	23.2	11.4
1973/74	2.80	6.70	2.20	11.70	7.68	14.13	2.60	24.41	9.9	12.9	23.3	13.1
1974/75	2.86	6.00	2.25	11.11	7.86	13.47	2.87	24.20	9.9	12.1	21.3	12.5
<u>5-Year Average</u>	<u>2.63</u>	<u>5.98</u>	<u>2.09</u>	<u>10.70</u>	<u>7.62</u>	<u>13.85</u>	<u>2.50</u>	<u>23.07</u>	<u>9.4</u>	<u>11.8</u>	<u>23.0</u>	<u>12.2</u>
1975/56	3.23	7.04	2.29	12.57	8.45	14.24	2.84	25.53	10.4	13.5	22.0	13.4
1976/77	3.01	6.91	1.65	11.57	7.95	14.36	2.11	24.42	10.3	13.1	21.3	12.9
1977/78	3.10	7.42	2.47	12.99	7.82	14.26	2.70	24.78	10.8	14.2	24.9	14.3

Source: Agricultural Statistics Wing, Bangladesh Bureau of Statistics.

TABLE 7.5  
PROCUREMENT, DISTRIBUTION AND STOCKS OF FOODGRAINS  
(Long Tons)

	<u>1972/73</u>	<u>1973/74</u>	<u>1974/75</u>	<u>1975/76</u>	<u>1976/77</u>	<u>1977/78</u>
Opening Balance	359,237	296,621	214,256	746,277	823,167	376,378
Imports	2,739,866	1,640,748	2,254,520	1,412,030	810,000	1,643,081
Local Procurement	<u>52</u>	<u>70,863</u>	<u>137,911</u>	<u>414,954</u>	<u>316,440</u>	<u>550,439</u>
Available for Public Distribution	3,099,155	2,008,232	2,606,687	2,573,261	1,949,607	2,569,898
Statutory Rationing	464,802	502,488	471,038	359,112	376,810	451,010
Modified Rationing	1,592,148	776,710	577,859	494,816	288,482	352,732
Relief	207,109	52,409	160,852	226,283	199,296	284,829
Others	<u>354,385</u>	<u>396,016</u>	<u>553,787</u>	<u>595,460</u>	<u>608,584</u>	<u>758,559</u>
Total Distribution	2,618,444	1,727,623	1,763,536	1,675,671	1,473,172	1,847,130
Losses	184,090	66,353	96,874	74,423	100,057	95,768
Closing Balance	<u>296,621</u>	<u>214,256</u>	<u>746,277</u>	<u>823,167</u>	<u>376,378</u>	<u>627,000</u>

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Source: Directorate of Food, Ministry of Food.

TABLE 7.6

FOODGRAIN PRODUCTION, IMPORTS AND PER CAPITA CONSUMPTION  
(Million Long Tons)

	1969/70	1970/71	1971/72	1972/73	1973/74	1974/75	1975/76	1976/77	1977/78
Production									
Rice	11.82	10.97	9.78	9.93	11.70	11.11	12.56	11.57	12.99
- Aus	(2.96)	(2.86)	(2.34)	(2.27)	(2.80)	(2.86)	(3.23)	(3.01)	(3.10)
- Aman	(6.95)	(5.91)	(5.70)	(5.59)	(6.70)	(6.00)	(7.04)	(6.91)	(7.42)
- Boro	(1.90)	(2.19)	(1.74)	(2.07)	(2.20)	(2.25)	(2.29)	(1.65)	(2.47)
Wheat	0.10	0.11	0.11	0.09	0.09	0.12	0.22	0.26	0.34
Gross production, total	11.92	11.08	9.89	10.02	11.79	11.23	12.78	11.83	13.33
Less: 10% for seed, feed & wastage	1.19	1.11	0.99	1.00	1.18	1.12	1.28	1.18	1.33
Net production	10.73	9.97	8.90	9.02	10.61	10.11	11.50	10.65	12.00
Imports	1.55	1.26	1.69	2.74	1.64	2.26	1.42	0.81	1.64
- Rice	0.50	0.38	0.67	0.37	0.08	0.26	0.39	0.20	0.30
- Wheat	1.04	0.88	1.02	2.37	1.56	2.00	1.03	0.61	1.34
Change in official stocks (- = addition)	..	..	0.14	0.06	0.08	-0.47	-0.09	0.45	-0.20
Less: Losses in public procurement and distribution	..	..	..	0.18	0.07	0.10	0.07	0.07	0.09
Total availability for consumption <sup>a/</sup>	12.28	11.23	10.73	11.64	12.26	11.80	12.76	11.84	13.35
Population (millions)	70.8	72.3	72.4	74.4	76.2	78.2	80.4	82.7	85.0
Apparent per capita consumption <sup>a/</sup>									
- lbs./year	388.5	347.9	332.0	350.5	360.4	338.0	355.5	320.7	351.8
- oz /day <sup>b/</sup>	17.0	15.3	14.5	15.4	15.8	14.8	15.5	14.1	15.4

.. = Not available.

a/ Inclusive of changes in private stocks.

b/ The government's target amount of 15.5 ounces per day corresponds to lbs. 353.6 per annum.

Source: Ministry of Agriculture; Ministry of Food; Planning Commission; Bangladesh Bureau of Statistics; and Table 1.1

TABLE 7.7  
BADC LOW LIFT PUMP PROGRAM (1960-1979)

<u>Years</u>	<u>Number of Pumps in Operation</u>	<u>Average Cusecs per Pump</u>	<u>Area Irrigated per Cusec (Acres)</u>	<u>Total Area Irrigated (Acres)</u>
1960/61	1,267	..	..	64,528
1961/62	1,543	..	..	98,163
1962/63	2,024	1.70	38.5	133,043
1963/64	2,456	1.85	34.1	156,281
1964/65	2,238	1.95	30.0	131,129
1965/66	3,420	2.05	24.6	173,553
1966/67	3,990	2.14	26.4	225,105
1967/68	6,558	2.08	23.3	317,903
1968/69	10,582	1.89	20.7	424,799
1969/70	17,844	1.84	19.6	639,000
1970/71	24,454	1.85	18.3	820,074
1971/72	24,254	1.84	19.4	864,427
1972/73	32,924	1.84	20.3	1,230,468
1973/74	35,343	1.84	20.1	1,330,810
1974/75	35,427	1.86	20.0	1,296,960
1975/76	36,376	..	..	1,431,000
1976/77	28,224	..	..	1,034,328
1977/78	36,735	..	..	1,355,138
1978/79 (target)	40,000	..	..	1,460,000

Source: Bangladesh Agricultural Development Corporation.

.. = Not available.

TABLE 7.8

BADC DEEP TUBEWELLS PROGRAM

<u>Year</u>	<u>Sunk</u>	<u>Number in Operation</u>	<u>Area Irrigated (Acres)</u>	<u>Average Irrigated Area (ac. per Well)</u>
1967/68	106	..	4,117	..
1968/69	292	..	16,080	..
1969/70	662	..	32,119	..
1970/71	51	734	32,070	43.7
1971/72	221	906	29,330	32.4
1972/73	872	1,237	37,776	30.5
1973/74	1,778	1,493	61,456	41.2
1974/75	3,178	2,699	117,864	43.7
1975/76	1,656	3,828	153,747	40.1
1976/77	634	4,455	161,263	36.2
1977/78	<u>1,271</u>	7,453	338,474	45.4
TOTAL	<u>10,721</u>			

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.. = Not available.

Source: Bangladesh Agricultural Development Corporation.

TABLE 7.9

BADC SHALLOW TUBEWELLS PROGRAM

<u>Year</u>	<u>Sunk</u>	<u>Number in Operation a/</u>	<u>Area Irrigated (Acres)</u>	<u>Average Irrigated Area (ac. per well)</u>
1972/73	1,808	994	3,560	3.6
1973/74	1,142	2,293	11,845	5.2
1974/75	911	3,605	23,470	6.5
1975/76	1,083	2,162	12,894	6.0
1976/77	1,627	3,045	17,707	5.8
1977/78	<u>3,452</u>	6,517	58,850	9.0
TOTAL	<u>10,023</u>			

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a/ Under a subsidy scheme which was outside the usual program of BADC but implemented under the supervision of BADC technical personnel, 793 tubewells were sunk and 672 commissioned by June of 1972. These tubewells are included here.

Source: Bangladesh Agricultural Development Corporation.

**TABLE 7.10**  
**FERTILIZER CONSUMPTION, PRODUCTION AND IMPORTS**  
(Thousand Tons)

Consumption by Crop Season	1974/75 Actual				1975/76 Actual				1976/77 Actual				1977/78 Actual			
	Urea	TSP	MP	Total	Urea	TSP	MP	Total	Urea	TSP	MP	Total	Urea	TSP	MP	Total
Aman	53.3	18.3	2.7	74.3	99.2	26.6	5.7	131.5	109.5	38.8	5.3	153.6	143.1	54.1	11.1	208.3
Boro	82.8	44.6	10.7	138.1	153.6	68.4	13.6	253.6	141.4	66.6	12.8	220.8	203.0	94.4	21.0	318.4
Aus	38.8	14.2	4.1	57.1	58.7	15.1	2.5	76.3	103.6	25.4	5.6	134.6	131.7	43.2	9.0	183.9
<b>TOTAL</b>	174.9	77.1	17.5	269.5 <sup>a/</sup>	311.5	110.1	21.8	443.4 <sup>b/</sup>	354.5	130.8	23.7	509.0 <sup>c/</sup>	477.8	191.7	41.1	710.6 <sup>d/</sup>
Domestic Production	69.0	26.0	—	95.0	285.0	39.2	—	324.2	285.5	48.0	—	333.5	212.5	38.2	—	250.7
Imports	140.0	47.4	6.9	194.3	71.2	219.2	36.8	327.2	10.8	20.5	9.8	41.1	256.0	113.0	37.0	406.0

a/ Excludes 12,700 tons of other fertilizer.  
b/ Excludes 13,830 tons of other fertilizer.  
c/ Excludes 18,430 tons of other fertilizer.  
d/ Excludes 5,600 tons of other fertilizer.

TABLE 8.1

a/

**PRODUCTION TRENDS OF SELECTED INDUSTRIES**

Industries/Products	Units	Production						Production Change (%)		
		1969/70	1972/73	1973/74	1974/75 (Actuals)	1975/76	1976/77	1977/78	1976/77 1975/76	1977/78 1976/77
Jute Textiles	(thousand long tons)	560.5	446.3	500.2	444.3	477.9	490.1	546.2	2.6	11.4
Hessian	( " )	227.7	155.1	172.3	146.1	161.0	166.5	176.6	3.4	6.1
Sacking	( " )	279.3	210.4	227.2	227.9	221.0	227.0	265.5	2.7	17.0
Carpet Backing	( " )	33.0	54.0	66.0	40.0	71.3	70.4	76.3	-1.3	8.4
Others	( " )	20.6	26.8	34.7	30.3	24.3	26.2	27.8	7.8	6.1
Cotton Textiles										
Cloth	(million yds)	59.1	58.4	79.4	84.6	74.5	68.1	84.5	-8.6	24.1
Yarn	(million lbs)	105.7	80.9	91.3	91.3	88.1	82.4	89.7	-6.5	8.9
Paper and Board										
Newsprint	(thousand tons)	36.0	27.5	26.5	28.8	20.0	14.6	27.6	-27.0	89.0
Paper	( " )	31.0	23.1	23.0	29.5	19.8	26.5	31.6	33.8	19.2
Rayon Yarn	( " )	2.7	1.9	2.1	1.6	1.2	1.4	1.3	16.7	-7.1
Hardboard	(million sq. ft)	15	6	16	15	14.0	17.1	19.3	22.1	12.9
Particle Board	(thousand tons)	5.5	1.5	2.0	2.1	1.4	2.0	2.7	42.9	35.0
Cement	( " )	53	31	52	127	157	308	340.5	96.2	10.6
Steel Ingots	( " )	54	67	72	75	89	106	115	19.1	8.5
Petroleum Products	( " )	853	776	323	761	812	1,048	1,017	29.1	-3.0
Engineering Products										
Diesel Engine	(thousand nos.)	1.3	1.4	1.7	5.2	0.9	1.4	-	55.6	-
Pumps	( " )	-	0.9	2.1	7.5	-	2.8	2.1	-	-25.0
Commercial and Heavy Vehicles	( " )	0.46	1.23	2.27	1.30	0.89	0.98	1.4	10.1	42.9
G. I. & M. S. Pipes	( " )	5.1	2.8	3.7	2.7	4.8	3.4	5.7	-29.2	67.6
Radio	( " )	6.0	5.0	11.0	8.7	4.0	3.9	..	-2.5	..
Fertilizers										
Urea	(thousand tons)	94	207	275	68	276	281	213	1.8	-24.2
TSP	( " )	-	-	-	32	48	47	38	-2.1	-19.1
Ammonium Sulphate	( " )	4.7	5.0	10.1	4.9	5.7	9.1	9.3	59.6	2.2
Footwear	(thousand doz.)	586	448	391	280	285	255	146	-10.5	-42.7
Pharmaceuticals										
Tablets	(million nos.)	-	121	209	253	225	232	..	3.1	..
Liquid	(million bottles)	-	2.8	4.5	5.1	7.9	7.3	..	-7.6	..
Soap	(thousand tons)	8.7	8.0	10.4	5.9	8.3	7.5	11.1	-9.6	48.0
Glass Sheets	(million ft)	7.2	7.2	5.7	5.7	5.6	5.8	7.6	3.6	31.0
Matches	(million gross boxes)	13.0	5.9	6.2	6.2	6.9	7.6	8.0	10.1	6.4
Sugar	(thousand tons)	93	19	85	98	86	140	175	6..	25.0
Molasses	( " )	51	10	45	43	39	59	85	51.3	44.1
Tea	(million lbs)	67	53	61	71	65	74	77	13.8	4.1
Food and Allied Products										
Edible Oils and Vegetable Chee	(thousand tons)	19.1	14.1	18.4	15.4	19.1	24.9	27.4	30.4	10.0
Fish Processing	(million lbs)	3.8	2.3	3.0	2.7	5.1	7.3	6.4	43.1	-12.3
Soft Beverage	(thousand cases)	264	330	258	271	235	223	..	-5.1	..
Cigarettes	(billion sticks)	17.79	11.20	11.90	10.44	11.91	11.63	12.0	-2.4	3.2
Biscuits and Bread	(thousand tons)	3.9	6.4	4.4	4.6	4.0	4.2	5.3	5.0	26.2
Lime stone	(thousand tons)	134.5	44.6	81.8	26.0	61.3	61.3	61.0	0.0	-0.5
Sulphuric acid	( " )	6.5	5.7	6.4	5.4	4.0	3.9	4.5	-2.5	15.4
Caustic soda	( " )	3.4	3.9	3.8	4.3	4.1	5.0	5.6	22.0	12.0
Hydrochloric acid	( " )	..	1.2	1.9	1.6	1.7	1.5	1.7	-11.8	13.3
Chlorine	( " )	2.9	2.7	2.3	3.1	3.5	2.9	3.7	-17.1	27.6
Natural gas	(million cubic feet)	..	..	27,124	17,976	27,357	32,360	34,294	18.3	6.0
Electricity	(million kwh)	1,067.3	1,085.6	1,265.4	1,322.1	1,459.7	1,614.5	..	10.6	..

a/ Public sector only except tea, cigarettes and matches.

Source: Nationalized Industries Division; Public Sector Corporations; Planning Commission; and Bureau of Statistics.

TABLE 8.2

FINANCIAL PERFORMANCE OF THE PUBLIC SECTOR CORPORATIONS  
(Taka million)

	a/ Net Profit (+)/Loss (-)					Gross Sales				
	1973/74	1974/75	1975/76	1976/77	1977/78	1973/74	1974/75	1975/76	1976/77	1977/78
1. <u>Bangladesh Jute Mills Corporation (BJMC)</u>	-332.0	-239.0	-284.7	-525.5	-605.5	1656.8	2063.3	2941.8	2896.7	3829.3
	(-20.0)	(-11.6)	(-9.7)	(-18.3)	(-17.0)					
2. <u>Bangladesh Textile Mills Corporation (BTMC)</u>	162.7	125.1	59.8	-137.8	35.3	1254.4	1409.6	1737.8	1780.7	2005.7
	(13.0)	(8.9)	(3.4)	(-7.7)	(1.8)					
3. <u>Bangladesh Sugar &amp; Food Industries Corporation (BSFIC)</u>	...	...	...	86.5	..	...	...	...	1477.1	1963.0
				(5.9)	(..)					
Bangladesh Sugar Mills Corporation (BSGMC)	39.0	53.6	0	...	...	210.7	580.3	723.2	...	...
	(18.5)	(9.2)	(-)							
Bangladesh Food & Allied Industries Corporation (BFAIC)	24.5	53.1	-18.9	...	...	349.4	493.2	736.3	...	...
	(7.0)	(10.8)	(-1.9)							
4. <u>Bangladesh Steel &amp; Engineering Corporation (BSEC)</u>	...	...	...	70.8	108.6	...	...	...	1575.2	1581.0
				(4.5)	(6.9)					
Bangladesh Steel Mills Corporation (BSTMC)	19.2	41.6	52.5	...	...	260.5	505.5	791.1	...	...
	(7.4)	(8.2)	(6.6)							
Bangladesh Engineering & Shipbuilding Corporation (BESC)	41.0	45.4	20.7	...	...	358.9	373.1	333.5	...	...
	(11.4)	(12.2)	(6.2)							
5. <u>Bangladesh Chemical Industries Corporation (BCIC)</u>	...	...	...	109.2	65.2	...	...	...	1646.8	1948.8
				(6.6)	(3.3)					
Bangladesh Paper & Board Corporation (BPBC)	-32.7	-52.8	-124.7	...	...	226.8	308.3	320.2	...	...
	(-14.4)	(-17.1)	(-38.9)							
Bangladesh Fertilizer, Chemical & Pharmaceutical Corporation (BFCPC)	63.6	-180.7	-67.2	...	...	507.2	616.4	1046.1	...	...
	(12.5)	(-29.3)	(-6.4)							
Bangladesh Tanneries Corporation (BTC)	-6.4	-3.3	2.9	...	...	25.2	47.4	35.4	...	...
	(-25.4)	(-7.0)	(8.2)							
6. <u>Bangladesh Forest Industries Development Corporation (BFIDC)</u>	31.0	51.0	-9.0	-2.8	0.4	81.8	120.0	68.2	76.5	79.6
	(38.0)	(42.5)	(-13.2)	(-3.7)	(0.5)					
Sub-total (except BJMC)	341.6	133.0	-78.9	125.9	209.5 <sup>b/</sup>	3274.9	4453.8	5791.8	6529.3	7678.1
	(10.4)	(3.0)	(-1.4)	(1.9)	(2.7) <sup>b/</sup>					
Total	9.6	-106.0	-363.6	-399.6	-396.0 <sup>b/</sup>	4931.7	6517.1	8733.6	9426.0	11507.4
=====	(0.2)	(1.6)	(-4.2)	(-4.2)	(-3.4) <sup>b/</sup>	=====	=====	=====	=====	=====

Note: The control, supervision and coordination of the industries nationalized after independence were vested in the Nationalized Industries Division of the Ministry of Industries. BJMC was soon transferred to the Ministry of Jute. In 1976, BMDC was transferred to the Ministry of Agriculture and seven sector corporations were consolidated into three: BSFIC, BSEC and BCIC. BTMC came under the control of the new Ministry of Textiles in 1977.

a/ The figures in parentheses are ratios of profit or loss over sales, in percent.  
b/ Excluding BSFIC.

Source: Sector Corporations; Nationalized Industries Division.

**TABLE 8.3**  
**INDUSTRIAL PRODUCTION INDICES**  
(1969/70 = 100)

Industry Group/Industry	Weight %	1972/73	1973/74	1974/75	1975/76	1976/77	1977/78 <sup>a/</sup>
<b>Food industries</b>	<b>15.34</b>	<b>78.4</b>	<b>114.7</b>	<b>113.2</b>	<b>117.7</b>	<b>140.8</b>	<b>152.6</b>
Fish processing	0.37	60.3	80.7	71.1	131.9	195.1	169.5
Flour milling	0.95	245.2	300.8	309.4	333.6	273.4	287.0
Bakeries	0.48	110.6	110.9	115.8	101.4	107.3	132.5
Sugar industry	4.41	20.2	94.6	105.4	92.8	149.9	187.7
Tea industry	8.09	82.0	94.3	95.0	100.4	107.5	111.7
Edible oils and fats industry	0.51	182.2	331.7	159.2	257.3	384.6	300.9
Vegetable ghee industry	0.53	88.5	78.1	85.8	72.5	92.6	106.4
<b>Beverages</b>	<b>0.25</b>	<b>72.4</b>	<b>58.4</b>	<b>57.5</b>	<b>49.4</b>	<b>46.6</b>	<b>64.8</b>
Soft beverages bottling	0.25	72.4	58.4	57.5	49.4	46.6	64.8
<b>Tobacco industry</b>	<b>7.43</b>	<b>63.0</b>	<b>66.9</b>	<b>58.7</b>	<b>67.0</b>	<b>65.4</b>	<b>67.3</b>
Cigarettes	7.43	63.0	66.9	58.7	67.0	65.4	67.3
<b>Textile industry</b>	<b>58.17</b>	<b>79.4</b>	<b>90.5</b>	<b>82.8</b>	<b>84.5</b>	<b>84.1</b>	<b>92.8</b>
Jute manufacturing	33.53	80.3	90.5	78.6	86.2	88.4	97.7
Cotton textiles	20.82	79.5	92.9	94.0	89.1	83.1	93.4
Rayon and other synthetics	3.82	70.7	77.1	59.1	44.1	51.5	48.9
<b>Paper and paper products industries</b>	<b>6.88</b>	<b>62.9</b>	<b>64.1</b>	<b>76.6</b>	<b>52.6</b>	<b>59.8</b>	<b>79.1</b>
Paper	4.38	54.1	59.0	75.5	50.8	67.0	80.7
Newsprint	2.09	76.5	73.6	80.1	55.8	40.6	76.9
Hard board	0.21	40.2	104.1	102.1	85.5	124.6	127.7
Particle board	0.20	27.4	37.4	38.5	25.6	38.5	50.2
<b>Chemical industries</b>	<b>5.60</b>	<b>139.8</b>	<b>82.5</b>	<b>81.7</b>	<b>208.6</b>	<b>217.4</b>	<b>173.4</b>
Fertilizers	3.12	214.5	287.8	106.3	333.0	341.3	258.6
Disinfectants and insecticides	0.36	21.0	35.9	34.8	19.3	52.9	65.9
Industrial chemicals	0.13	117.7	122.9	133.5	132.2	134.4	130.0
Matches	1.99	45.6	47.9	48.0	52.8	86.4	62.1
<b>Petroleum refining</b>	<b>2.54</b>	<b>88.3</b>	<b>42.4</b>	<b>101.7</b>	<b>111.7</b>	<b>136.7</b>	<b>130.0</b>
Petroleum products	2.54	88.3	42.4	101.7	111.7	136.7	130.0
<b>Basic metals industries</b>	<b>3.32</b>	<b>90.5</b>	<b>90.0</b>	<b>83.5</b>	<b>77.3</b>	<b>95.3</b>	<b>120.5</b>
Steel ingots	0.93	125.5	136.1	141.1	167.0	199.0	215.9
M.S. products	2.39	77.1	72.3	61.4	42.7	53.6	83.9
<b>Non-metallic minerals industries</b>	<b>0.43</b>	<b>68.6</b>	<b>72.3</b>	<b>121.5</b>	<b>140.5</b>	<b>241.1</b>	<b>274.4</b>
Glass manufacturing	0.28	73.9	58.3	58.5	57.0	59.3	77.3
Cement manufacturing	0.15	58.8	98.4	239.0	296.2	580.5	642.4
<b>Other industries</b>	<b>0.04</b>	<b>253.9</b>	<b>860.0</b>	<b>512.7</b>	<b>637.3</b>	<b>660.8</b>	<b>819.2</b>
Rubber industry	0.01	77.2	60.1	73.4	86.3	68.5	75.7
Ice making	0.03	312.8	1,126.6	659.1	821.0	858.2	1067.7
<b>General Index of Manufacturing</b>	<b>100.00</b>	<b>80.9</b>	<b>94.7</b>	<b>86.0</b>	<b>93.9</b>	<b>99.7</b>	<b>106.5</b>

a/ Preliminary.

Note: These indices do not cover all manufacturing. Excluded are, among others, the manufacturing of footwear and clothing, leather, soap, furniture, drugs and medicines, metal products, machinery, electrical equipment, synthetic resins, plastics, salts, jute pressing, printing and publishing, as well as all small and cottage industries (which include handloom weaving).

Source: Bangladesh Bureau of Statistics.

**TABLE 9.1**  
**CONSUMER/C.O.L. INDICES (DACCA)**

	Weight, in %	Annual Averages						Monthly Averages				
		1972/73	1973/74	1974/75	1975/76	1976/77	1977/78	July 1976	January 1977	July 1977	January 1978	July 1978
<b>A. Consumer Price Index</b>												
<b>For Government Employees</b>												
<b>in Dacca (1969/70 = 100)</b>												
General Index	100.00	181.5	252.5	407.6	380.1	382.5	440.6	373.5	373.1	420.2	447.2	461.4
Food	52.57	184.7	263.5	469.6	384.6	366.7	431.2	362.8	349.3	417.3	443.9	445.7
Fuel & lighting	5.38	191.8	249.6	358.7	370.1	391.0	401.0	388.9	398.9	398.3	401.3	410.2
Housing & household requisites	11.98	132.1	160.7	268.2	405.8	476.4	563.7	449.8	472.8	505.5	562.5	622.5
Clothing & footwear	8.53	231.8	355.3	413.4	380.0	387.0	466.2	354.1	382.0	437.1	472.7	500.4
Miscellaneous	21.54	178.5	236.7	344.6	357.6	364.8	395.2	351.7	365.7	378.8	392.6	407.3
<b>B. Cost-of-Living Index</b>												
<b>For Middle Income Families</b>												
<b>in Dacca (1973/74 = 100)</b>												
General Index	100.00	..	100.0	167.2	153.2	156.9	176.7	166.8	166.8	169.6	181.7	180.9
Food	62.74	..	100.0	176.9	148.6	150.2	173.7	148.6	143.9	167.2	181.3	177.8
Fuel & lighting	7.50	..	100.0	153.4	154.5	164.1	168.0	163.5	165.7	165.7	166.7	168.7
Housing & household requisites	11.85	..	100.0	178.3	204.4	218.1	237.3	316.9	335.2	223.7	239.3	246.2
Clothing & footwear	6.20	..	100.0	119.3	110.9	110.0	144.9	104.7	108.1	121.5	129.0	136.5
Miscellaneous	11.71	..	100.0	137.8	147.4	150.4	160.7	147.8	150.6	155.6	163.1	163.4

Notes: A. The consumer price index for government employees in Dacca (base 1969/70 = 100) refers to non-gazetted government employees with monthly salaries between Taka 100 and Taka 400 in 1969/70. The coverage of items and distribution of weights are based on the findings of the Family Budget Survey of 1955/56.  
B. The cost-of-living index for middle income families in Dacca (base 1973/74 = 100) is based in the coverage of items and distribution of weights on the results of the Household Expenditure Survey conducted by the BBS in 1973/74.

Source: Bangladesh Bureau of Statistics.

TABLE 9.2

WHOLESALE PRICE INDICES OF AGRICULTURAL AND INDUSTRIAL PRODUCTS  
(1969/70 = 100)

	Weights, in % of Total	1972/73	1973/74	1974/75	1975/76	1976/77	1977/78
<b>A. Dacca</b>							
<u>Agricultural products</u>	82.06	180.2	233.0	494.1	338.7	313.0	384.8
Food	65.62	187.8	273.4	530.3	328.0	289.3	357.3
Raw materials	16.02	169.0	173.5	350.1	392.6	444.7	487.7
Fuel	0.42	-	-	427.4	397.8	361.1	303.6
<u>Industrial products</u>	17.94	246.3	283.1	382.0	355.4	394.0	413.6
Food	13.47	249.7	322.3	354.5	337.6	389.1	392.4
Raw materials	0.33	-	-	154.4	361.1	615.4	486.1
Fuel & lighting	0.46	235.8	288.4	367.4	406.2	427.2	450.5
Manufactures	3.68	241.7	227.5	501.0	414.0	387.8	478.1
<u>All products</u>	<u>100.00</u>	<u>228.0</u>	<u>258.9</u>	<u>474.0</u>	<u>341.9</u>	<u>327.5</u>	<u>387.8</u>
<b>B. Chittagong</b>							
<u>Agricultural products</u>	82.06	194.5	263.1	504.2	345.2	323.2	403.1
Food	65.62	193.8	262.8	558.3	319.2	302.3	379.9
Raw materials	16.02	258.6	293.6	288.1	357.5	409.4	492.7
Fuel	0.42	-	-	329.6	429.4	327.2	367.7
<u>Industrial products</u>	17.94	244.3	290.2	403.9	365.6	407.6	464.6
Food	13.47	237.2	294.7	385.9	349.3	407.7	451.7
Raw materials	0.33	-	-	145.7	402.2	728.3	615.2
Fuel & lighting	0.46	238.5	320.8	362.7	356.3	382.4	438.1
Manufactures	3.68	255.1	278.4	503.6	423.2	379.0	471.0
<u>All products</u>	<u>100.00</u>	<u>237.2</u>	<u>278.0</u>	<u>486.1</u>	<u>348.9</u>	<u>338.4</u>	<u>414.2</u>
<b>C. Bangladesh</b>							
<u>Agricultural products</u>	82.06	187.8	251.3	464.2	332.5	305.7	374.5
Food	65.62	186.7	256.6	507.9	326.9	287.1	352.3
Raw materials	16.02	261.4	279.7	308.6	354.4	379.9	469.4
Fuel	0.42	-	-	376.0	415.9	391.4	401.8
<u>Industrial products</u>	17.94	255.5	320.3	390.4	356.5	361.7	435.7
Food	13.47	247.7	341.4	366.9	341.1	348.4	425.0
Raw materials	0.33	-	-	135.4	352.5	645.0	521.1
Fuel & lighting	0.46	227.5	312.1	348.3	352.8	354.7	381.8
Manufactures	3.68	267.1	291.4	504.6	419.6	379.8	474.7
<u>All products</u>	<u>100.00</u>	<u>240.5</u>	<u>304.4</u>	<u>454.3</u>	<u>337.8</u>	<u>315.8</u>	<u>385.4</u>

Note: The wholesale price indices (base 1969/70 = 100) are prepared for six urban centers in Bangladesh (Dacca, Chittagong, Khulna, Rajshahi, Sylhet and Rangpur) and cover 44 individual items. Weights are assigned in proportion to the gross value of production for each item in the base year 1969/70. The national index represents the unweighted average of the indices for the six urban centers.

Source: Bangladesh Bureau of Statistics.

**TABLE 9.3**  
**WHOLESALE PRICES OF SELECTED COMMODITIES AT DACCA**  
**(Taka)**

		<u>1968/69</u>	<u>1969/70</u>	<u>1970/71</u>	<u>1971/72</u>	<u>1972/73</u>	<u>1973/74</u>	<u>1974/75</u>	<u>1975/76</u>	<u>1976/77</u>	<u>1977/78</u>	<u>January</u> <u>1978</u>	<u>June</u> <u>1978</u>
Rice (fine)	Md.	47.6	47.6	48.6	79.1	90.7	125.9	250.9	164.3	143.6	172.6	174.0	175.0
Rice (medium)	Md.	44.5	44.7	45.8	54.5	83.6	119.3	240.9	151.9	133.8	160.4	155.3	161.7
Rice (coarse)	Md.	41.4	40.4	41.1	48.4	94.2	110.7	219.3	138.3	120.0	147.3	141.5	144.3
Masur	Md.	31.4	39.1	47.2	62.8	79.1	160.8	185.1	222.6	172.4	229.7	297.5	240.0
Chillies (dry), sup. quality	Md.	119.9	98.2	93.7	148.8	93.1	332.8	1330.1	298.8	489.2	713.3	1511.3	676.7
Mustard oil (local)	Md.	133.0	164.2	194.7	254.6	428.4	254.6	1154.5	775.9	675.5	827.5	1033.8	856.3
Coconut oil (imported)	Md.	247.1	216.3	257.8	333.1	470.9	831.2	1271.5	665.0	844.9	1047.1	970.0	1100.0
Vegetables oil (Pakvan)	35 lbs.	59.8	66.8	89.6	119.0	145.5	274.7	439.5	319.9	285.7	341.8	438.8	330.0
Tobacco leaf (Motihari, sup. quality)	Md.	341.5	253.9	198.1	375.8	743.5	741.7	599.5	1215.3	1304.3	917.7	718.8	900.0

Source: Bangladesh Bureau of Statistics.

TABLE 9.4

RETAIL PRICES OF SELECTED CONSUMER GOODS AT DACCA  
(Average Prices in Taka)

<u>Item</u>	<u>Unit</u>	<u>1968/69</u>	<u>1969/70</u>	<u>1970/71</u>	<u>1971/72</u>	<u>1972/73</u>	<u>1973/74</u>	<u>1974/75</u>	<u>1975/76</u>	<u>1976/77</u>	<u>1977/78</u>	<u>January 1978</u>	<u>June 1978</u>
Rice (medium)	Md.	47.2	47.6	48.0	57.2	89.6	126.0	280.1	162.4	140.4	171.2	166.0 (33)	171.6 (9)
Masur (husked, whole)	Seer	1.1	1.2	1.3	1.8	2.6	4.5	5.5	6.3	5.0	6.6	8.0 (78)	6.4 (7)
Rohu, big (cut pieces)	"	3.9	4.1	4.2	5.0	8.7	12.4	14.9	16.0	17.4	21.5	18.4 (6)	22.1 (17)
Potato (desi, mainital), medium	"	0.7	0.7	0.7	0.8	1.4	2.0	2.3	2.7	1.9	1.7	2.3 (92)	1.8 (29)
Mustard oil (local mill 1st qlty)	"	5.6	4.4	5.2	6.8	12.2	15.3	32.7	22.1	18.8	24.2	28.0 (41)	24.2 (21)
Chillies - dry	"	3.5	3.1	3.0	4.4	3.0	9.8	48.7	10.0	14.7	22.9	42.3 (252)	20.0 (-8)
Gur-Cane (loose)	"	1.5	1.6	1.5	1.1	3.8	4.0	8.0	7.7	5.8	6.0	6.4 (28)	6.0 (-)
Coconut-dry (med.)	Per Unit	0.6	0.7	0.8	0.6	1.4	2.2	3.8	3.5	3.3	3.5	3.6 (-3)	3.6 (9)
Firewood (gazari, split)	Md.	5.5	5.9	6.1	7.5	11.3	14.9	20.6	21.9	23.3	24.5	24.3 (1)	24.6 (3)
Kerosene-White	22 Ounce Bottle	0.4	0.4	0.4	0.8	0.9	1.3	1.6	1.7	1.9	2.7	2.8 (56)	2.8 (56)
Saree (mill 50's x 70's, med. quality)	5 Yard Piece	11.3	12.2	13.1	15.0	28.1	41.4	41.3	35.4	38.2	52.6	53.3 (48)	53.0 (18)
Longcloth (med. quality)	Yard	1.8	2.0	2.3	4.4	10.8	12.2	12.0	8.5	8.9	12.2	12.5 (32)	12.5 (32)
Paper-Foolscap (white)	Quire	0.7	0.8	0.8	n.a.	1.1	1.6	2.7	2.0	2.4	2.7	2.5 (-)	2.8 (12)
Betel-leaf (med.)	Birah <sup>a/</sup>	1.1	1.0	1.5	2.1	3.8	2.7	4.3	4.9	3.7	4.8	5.1 (31)	4.3 (39)
Tobacco (leaf) motihari	Seer	10.2	9.0	7.7	11.8	24.6	24.1	21.5	39.0	46.1	31.1	40.2 (-23)	28.2 (-32)

a/ 1 birah = 80 leaves.

Note: Figures in parenthesis are percentage increase over the previous year.

Source: Bangladesh Bureau of Statistics.

TABLE 9.5  
AVERAGE PRICES OF RICE  
(Medium Quality; in Taka per maund)

	<u>Wholesale Price <u>a/</u></u>	<u>Retail Price <u>b/</u></u>
1969/70	43.12	45.60
1970/71	41.48	45.30
1971/72	56.31	61.20
1972/73	95.80	107.60
1973/74	113.31	120.40
<u>1974/75</u>	<u>230.08</u>	<u>252.24</u>
July-September	188.30	201.73
October-December	238.75	266.87
January-March	263.74	286.53
April-June	229.52	253.83
<u>1975/76</u>	<u>141.32</u>	<u>153.78</u>
July-September	202.71	214.17
October-December	129.40	150.00
January-March	118.51	127.20
April-June	114.68	123.73
<u>1976/77</u>	<u>125.38</u>	<u>135.67</u>
July-September	122.04	130.93
October-December	120.27	126.53
January-March	115.51	126.13
April-June	143.67	159.07
<u>1977/78</u>	<u>159.45</u>	<u>169.60</u>
July-September	174.13	184.40
October-December	154.73	164.80
January-March	148.30	157.60
April-June	160.63	171.60
<u>1978/79</u>	<u>..</u>	<u>..</u>
July	157.83	170.40

a/ National average.

b/ Simple average of 4 centres (Dacca, Chittagong, Khulna and Rajshahi).

Source: Bangladesh Bureau of Statistics.

TABLE 9.6

## AVERAGE WHOLESALE PRICES OF SELECTED BUILDING MATERIALS AND DAILY WAGE RATES OF CONSTRUCTION WORKERS

(Taka)

	Unit	1967/68	1968/69	1969/70	1970/71	1971/72	1972/73	1973/74	1974/75	1975/76	1976/77	1977/78
<b>Materials</b>												
Bricks (10", first class)	Per 1,000	118.23	118.85	125.07	124.86	142.27	222.73	324.87	465.44	621.45	611.66	625.49
Cement (A.B.C.)	Per bag	13.10	12.68	13.08	11.24	21.21	35.62	77.11	124.35	68.61	63.62	65.54
Sand (coarse, superior quality)	100 cft.	36.97	38.62	39.23	38.02	39.29	49.12	86.41	94.91	99.74	111.94	123.64
Iron rods (3/8")	Per cwt.	74.77	72.73	81.31	84.44	96.83	121.44	239.67	326.83	363.81	349.64	379.22
Cast-iron sheets (24 gauge)	Per bundle	173.65	99.58	193.16	173.23	230.00	442.19	585.87	1,074.45	934.76	989.88	1,159.70
<b>Labor</b>												
Mason	Per day	6.87	7.01	7.16	6.45	6.65	8.61	13.38	16.74	20.35	21.17	24.62
Helper (Jugali)	Per day	3.44	3.74	3.51	3.73	3.83	4.74	7.08	9.97	10.83	10.73	12.72
Carpenter	Per day	6.12	6.27	6.42	6.41	6.73	8.96	12.05	15.67	18.22	19.92	22.35

Source: Bangladesh Bureau of Statistics.

TABLE 9.7

AVERAGE WAGE RATE PER DAY IN DACCA <sup>a/</sup>

(Taka)

Industry	January 1968	July 1972	January 1973	July 1973	January 1974	July 1974	January 1975	July 1975	January 1976	July 1976	January 1977	July 1977	January 1978	July 1978
<u>Cotton Textile</u>														
Skilled	5.50	7.20	7.12	7.50	7.50	8.50	10.00	11.25	11.25	12.00	13.00	12.00	15.00	15.00
Unskilled	3.50	5.00	5.78	5.80	6.50	7.05	8.00	9.50	8.00	9.00	10.00	8.37	9.75	9.80
<u>Jute Textile</u>														
Skilled	5.00	7.60	7.12	7.50	8.00	8.50	10.00	10.87	11.00	12.00	13.00	12.00	15.00	15.00
Unskilled	3.00	5.00	5.78	5.80	6.12	7.00	8.00	8.50	8.12	9.00	8.50	8.37	9.50	10.00
<u>Match</u>														
Skilled	4.77	10.00	10.00	10.00	10.75	11.00	11.75	13.00	11.75	14.75	15.00	10.00	14.00	15.00
Unskilled	3.37	7.30	7.00	7.00	7.75	8.00	8.62	9.31	8.00	10.00	10.00	8.00	9.00	10.00
<u>Mustard Oil</u>														
Skilled	4.69	7.60	7.87	9.00	9.44	10.00	10.25	11.79	12.75	12.00	12.00	12.00	12.50	13.00
Unskilled	2.92	5.00	6.62	6.50	7.37	7.50	8.00	9.78	9.00	9.00	9.50	9.00	9.00	10.00

<sup>a/</sup> Exclusive of food, housing, medical facilities, etc.

Source: Bangladesh Bureau of Statistics.

TABLE 10.1  
PRODUCTION OF JUTE GOODS  
( '000 long tons)

<u>Year</u>	<u>Hessian</u>	<u>Sacking</u>	<u>Carpet Backing</u>	<u>Others</u>	<u>Total</u>
1969/70	227.7	279.3	33.0	20.6	560.6
1970/71	199.4	172.8	40.5	26.9	439.6
1971/72	121.0	145.6	35.5	13.2	315.2
1972/73	155.1	210.4	53.8	27.0	446.3
1973/74	172.3	227.2	65.7	34.9	500.2
1974/75	146.1	227.9	40.4	29.8	444.3
1975/76	161.3	221.0	71.3	24.3	477.9
1976/77	166.5	227.1	70.5	25.6	489.7
1977/78	176.6	265.5	76.3	27.8	546.2

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Source: Bangladesh Jute Mills Corporation.

TABLE 10.2

JUTE GOODS EXPORTS

	<u>Export Shipments</u>					<u>Value</u> (Taka million)	<u>Export Sales</u>	
	<u>Volume (in thousand long tons)</u>						<u>Volume</u>	<u>Value</u>
	<u>Hessian</u>	<u>Sacking</u>	<u>Carpet</u> <u>Backing</u>	<u>Others</u>	<u>Total</u>		<u>(in thousand</u> <u>long tons)</u>	<u>(Tk. million</u>
1969/70	204.2	232.0	34.0	28.0	498.2	773.4	..	..
1970/71	172.6	146.1	42.5	20.7	381.9	667.8	..	..
1971/72	76.7	100.5	32.7	11/1	221.0	795.4	..	..
1972/73	163.1	169.8	50.0	28.7	411.6	1447.9	517.9	1827.6
1973/74	144.8	206.1	61.4	25.8	438.2	1586.5	492.3	1858.2
1974/75	136.6	181.3	40.9	19.8	378.7	1858.6	391.5	1977.7
1975/76	159.2	198.2	62.4	19.3	439.1	2778.4	547.2	3244.6
1976/77	151.6	208.4	71.7	21.8	453.5	2782.3	480.6	2880.2
1977/78	184.0	241.3	76.9	20.1	522.3	3733.2	514.2	3829.3

Source: Bangladesh Jute Mills Corporation, and Bangladesh Bureau of Statistics.

**TABLE 10.3**  
**EXPORT PRICES OF JUTE GOODS**  
(f.o.b. prices; Taka per long ton)

	<u>a/</u>					<u>b/</u>					<u>c/</u>				
	<u>Hessian</u>					<u>Sacking</u>					<u>Carpet Backing</u>				
	<u>1973/74</u>	<u>1974/75</u>	<u>1975/76</u>	<u>1976/77</u>	<u>1977/78</u>	<u>1973/74</u>	<u>1974/75</u>	<u>1975/76</u>	<u>1976/77</u>	<u>1977/78</u>	<u>1973/74</u>	<u>1974/75</u>	<u>1975/76</u>	<u>1976/77</u>	<u>1977/78</u>
July	3,824	5,867	6,210	6,664	7,070	2,345	3,451	5,533	4,696	5,215	4,860	6,300	8,128	7,277	8,503
August	3,992	6,257	6,143	6,664	7,236	2,527	3,711	5,378	4,696	5,422	4,750	6,075	8,830	7,356	8,410
September	3,973	6,385	6,206	6,530	7,325	2,553	3,959	5,227	4,587	5,513	4,750	5,750	8,484	7,656	8,397
October	4,086	6,205	6,307	6,937	7,454	2,598	4,124	5,198	4,575	5,731	4,750	5,750	8,430	8,123	8,504
November	4,265	5,634	6,169	6,776	7,805	2,668	4,112	5,077	4,536	6,158	4,775	5,750	8,857	8,031	8,620
December	4,534	5,120	6,219	6,688	8,886	2,688	3,936	5,077	4,546	6,799	4,775	4,950	8,823	7,760	8,664
January	5,041	5,120	6,239	6,717	8,932	2,840	3,936	4,782	4,606	7,037	4,475	4,950	8,801	7,959	8,685
February	5,659	5,268	6,295	6,967	9,680	3,151	3,962	4,885	4,802	7,458	5,250	4,950	7,654	8,173	9,402
March	6,189	4,919	6,768	7,027	9,505	3,415	3,853	4,951	5,099	7,331	5,250	4,990	7,940	8,144	9,402
April	6,924	4,579	7,002	7,027	9,178	3,650	3,682	5,042	5,553	6,968	5,350	5,100	8,299	8,341	9,276
May	6,862	5,627	6,409	7,057	8,731	3,522	4,429	4,628	5,671	6,510	6,150	6,219	7,487	8,518	9,589
June	6,088	6,479	6,631	7,080	8,482	3,435	5,690	4,686	5,569	6,236	6,293	8,078	7,483	8,512	9,589
<u>Annual Average (Taka)</u>	<u>5,120</u>	<u>5,622</u>	<u>6,383</u>	<u>6,845</u>	<u>8,357</u>	<u>2,949</u>	<u>4,070</u>	<u>5,039</u>	<u>4,911</u>	<u>6,365</u>	<u>5,144</u>	<u>5,739</u>	<u>8,268</u>	<u>7,987</u>	<u>8,920</u>

a/ .11x12 - 40"; 10 oz./yard.-- Price quotations commonly provided per 100 yards.

b/ 6x8 - 26-1/2"; 2.25 lbs./bag; B. Twills.-- Price quotations commonly provided per 100 bags.

c/ 7 oz/36 - 13x10; cloth.-- Price quotation commonly provided per long ton.

Source: Bangladesh Jute Mills Corporation.

TABLE 10.4

PRODUCTION, DOMESTIC USE AND EXPORTS OF RAW JUTE

(Million bales)

	<u>1972/73</u>	<u>1973/74</u>	<u>1974/75</u>	<u>1975/76</u>	<u>1976/77</u>	<u>1977/78</u>
	(-----Actual-----)					
Carryover	1.26	2.11	2.15	1.85	1.00	0.30
Production	6.51	6.00	3.90	4.35	4.80	5.40
<u>Total Availability</u>	<u>7.77</u>	<u>8.11</u>	<u>6.05</u>	<u>6.20</u>	<u>5.80</u>	<u>5.70</u>
Mills Consumption	2.49	2.91	2.50	2.65	2.90	3.10
Growers' Consumption	0.15	0.25	0.10	0.15	0.25	0.30
Estimated Loss & Unaccounted	0.20	0.15	0.05	0.05	0.05	nil
<u>Total Domestic Use</u>	<u>2.84</u>	<u>3.31</u>	<u>2.70</u>	<u>2.85</u>	<u>3.20</u>	<u>3.40</u>
Exports	2.82	2.65	1.55	2.35	2.30	1.70
End Season Stocks	2.11	2.15	1.85	1.00	0.30	0.60
Area under Jute (mln. acres)	2.21	2.02	1.42	1.28	1.60	1.81

Source: Ministry of Jute and Bureau of Agricultural Statistics.

TABLE 10.5

<u>EXPORT SHIPMENTS OF RAW JUTE</u>						
('000 bales)						
	<u>1972/73</u>	<u>1973/74</u>	<u>1974/75</u>	<u>1975/76</u>	<u>1976/77</u>	<u>1977/78</u>
July	143	202	169	73	112	37
August	138	84	172	38	100	16
September	108	120	218	108	97	46
October	171	155	228	129	171	262
November	255	169	118	145	281	340
December	281	280	192	249	239	322
January	310	280	172	283	364	194
February	203	313	105	336	286	137
March	337	196	91	350	270	125
April	285	317	58	257	132	88
May	268	254	31	224	171	52
June	327	292	84	155	53	48
<u>Total ('000 bales)</u>	<u>2,826</u>	<u>2,662</u>	<u>1,548</u>	<u>2,347</u>	<u>2,276</u>	<u>1,667</u>
<u>Total ('000 metric tons)</u>	527.4	496.8	288.9	438.0	424.8	311.1

Note: 1 bale of jute = 411.45 lbs.  
1 metric ton = 5.358178 bales

Source: Bangladesh Jute Export Corporation, Jute Division.

TABLE 10.6

PRICES OF RAW JUTE

A. <u>Growers' Prices<sup>a/</sup> (Taka/Maund)</u>						
	<u>1972/73</u>	<u>1973/74</u>	<u>1974/75</u>	<u>1975/76</u>	<u>1976/77</u>	<u>1977/78</u>
July	50.47	50.94	66.17	88.90	93.55	129.92
August	49.73	52.44	67.39	87.78	93.38	123.63
September	48.25	51.70	85.76	90.51	93.77	128.45
October	50.94	52.54	107.48	88.24	95.68	123.27
November	52.48	52.64	128.71	87.02	103.35	125.29
December	54.29	52.90	106.80	90.23	109.69	147.82
January	54.52	53.64	94.09	96.39	118.16	184.67
February	55.10	54.80	84.21	101.00	126.21	192.00
March	55.33	56.31	81.77	103.70	130.22	191.00
April	56.37	57.52	76.67	103.85	131.43	191.25
May	55.72	61.12	83.31	105.93	135.64	189.00
June	55.77	67.32	88.00	106.05	133.83	185.00
<u>Annual Average<sup>b/</sup></u>	<u>53.25</u>	<u>55.32</u>	<u>89.20</u>	<u>95.80</u>	<u>113.74</u>	<u>159.28</u>
B. <u>Export Prices<sup>c/</sup> (£ Sterling/long ton)</u>						
July	112	114	144	155	\$ 290	\$ 320
August	112	114	150	155	\$ 290	\$ 320
September	112	116	165	155	\$ 290	\$ 320
October	112	116	190	155	\$ 290	\$ 340 <sup>g/</sup>
November	112	116	200	155	\$ 290	\$ 352 <sup>h/</sup>
December	112	116	200	155	\$ 300 <sup>e/</sup>	\$ 352
January	112.7	116	200	155	\$ 300	205 <sup>i/</sup>
February	114.05	116.32	200	155	\$ 320 <sup>f/</sup>	205
March	115	119	200	160	\$ 320	205
April	115	124.9	200	171	\$ 320	205
May	115	133.15	180	\$ 302 <sup>d/</sup>	\$ 320	205
June	114	138.8	160	\$ 290	\$ 320	210
<u>Annual Average<sup>b/</sup> (£)</u>	<u>113.15</u>	<u>120.01</u>	<u>182.42</u>	<u>158.53<sup>i/</sup></u>	<u>177.07<sup>i/</sup></u>	<u>196.54<sup>j/</sup></u>

<sup>a/</sup> Combined average price for white and tossa jute paid to growers.

<sup>b/</sup> Unweighted average of monthly prices.

<sup>c/</sup> Export prices quoted for BWD, f.o.b. Chalna/Chittagong.

<sup>d/</sup> Price quotation was changed to US dollars in May 1976.

<sup>e/</sup> As of 13 December 1976.

<sup>f/</sup> As of 14 February 1977.

<sup>g/</sup> As of 1 October 1977.

<sup>h/</sup> As of 25 November 1977.

<sup>i/</sup> Price quotation was changed to pounds sterling in January 1978.

<sup>j/</sup> Unweighted average of monthly/daily quotations; where necessary, converted into pound sterling by means of the average monthly exchange rates.

**Note:** This table which gives announced monthly prices and an unweighted yearly average, is not comparable with Table 3.3 which gives annual price indices of average prices based on actual transactions.

**Source:** Bangladesh Jute Export Corporation.



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