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U.S. AGENCY FOR INTERNATIONAL DEVELOPMENT  
DACCA, BANGLADESH

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M E M O R A N D U M

November 20, 1981

FROM: Frank B. Kimball, Director *F B Kimball*  
USAID/Dacca, Bangladesh

TO: Mr. A.M. Mesbahuddin, Secretary  
Ministry of Food

Dr. A.H. Shahadatullah, Member Planning Commission and Chief, Food Planning & Monitoring Unit

Mr. A.Z.M. Obaidullah Khan, Secretary  
Ministry of Agriculture and Forests

Mr. Delwar Hossain, Chairman  
Bangladesh Sugar and Food Industries Corporation

Mr. Muhammed Ali, Joint Secretary  
External Resources Division  
Ministry of Finance

SUBJECT: PL-480 Title III Agreement.

During our November 10, 1981 meeting on the design for a new multiyear Title III program, it was agreed to hold a second meeting at 10:00 A.M. on November 25, 1981 in Dr. Shahadatullah's Office. This meeting will include the BDC's response to the U.S. country team's design proposals for the new agreement and will also be an evaluation of the ongoing Title III program. Attached are the U.S. country team's papers on these topics as follows:

1. P.L. 480 Title III Bangladesh U.S. FY-1981 Evaluation Benchmark Analysis
2. Assessment of Foodgrain Procurement, 1977/78 - 1980/81
3. Procurement Price Considerations - HYV Boro Paddy and Rice.

Attachment: a/s.

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PL 480 Title III Bangladesh U.S. FY 1981 Evaluation  
Benchmark Analysis

1. Statistical Review of Program Performance: The Bangladesh Food For Development program was signed on August 2, 1978 and was amended six times, the last time on June 26, 1981. The Title III agreement, as amended, authorized a total of 1,169,000 MT of wheat and 26,000 MT of soybean oil valued at \$200.5 million. Actual shipments have amounted to 1,175,000 MT of wheat and 25,000 MT of soybean oil valued at 191.8 million. To date 521,100 MT of wheat have been sold and \$81.7 million worth of sales proceeds have been deposited into the Special Account. Disbursements to development projects have amounted to \$80 million to date. The current balance in the Special Account is the Taka equivalent of \$1.7 million. The soybean oil which was shipped in FY 81 has just been received and no sales have yet been reported. The BDG will not be eligible to make use of the commodity use offset due to the reserve provision until the summer of 1982. A more detailed breakdown of the Commodities/~~Financial~~ Status of the program is presented in Table 1.

2. Soybean oil sales through the private sector:

The Title III soybean oil arrived in the month of October. It is too early to analyze the impact of the sales of this oil on market conditions, but some projections are possible. Bangladesh currently is facing a severe shortage of foreign exchange and since July 1981 has imposed restrictions on the importation of all commodities except petroleum products and urea fertilizer. These restrictions will have a direct impact on the vegetable oil market in Bangladesh when current

TABLE 1 : PL 480 TITLE III COMMODITIES/FINANCIAL STATUS  
(CONTINUED)  
Special Account Operation by BDG Fiscal Year (in million dollars):

<u>Fiscal Year</u>	<u>Sales Proceeds Deposited to Special Account</u>	<u>Amount Disbursed to Projects from Special Account</u>	<u>Amount Certified for CUO*</u>
1979	12.2	12.2	-
1980	55.0	55.0	12.2
1981	14.5	12.8	34.3
1982	-	-	<u>33.5</u>
	81.7	80.0	80.0

Application Position of the Certified Amount to Date  
(in million dollars)

<u>Amount Certified for CUO</u>	<u>Interest earned</u>	<u>Total Amount available for CUO</u>	<u>Amount Applied for repayment</u>		<u>Balance to be applied</u>
			<u>Title I</u>	<u>Title III</u>	
80.0	1.4	81.4	12.1	5.2	64.1

\*CUO is currency use offset on loan forgiveness.

stocks are exhausted because Bangladesh has a chronic vegetable oil deficit. In BDG FY 1980/81, 127,000 metric tons of vegetable oils were imported. Of this amount 74,500 metric tons (valued at \$43 million) was refined palm oil imported by private traders using foreign exchange made available through the Wage Earners Scheme. The Title III soybean oil will help to prevent vegetable oil prices from becoming excessively high by meeting a portion of the demand. There will be no difficulty for the BDG in recovering the CCC value of the commodity. The next annual program evaluation will be able to assess the actual impact of the Title III soybean oil on market conditions and review ration offtakes of vegetable oil for the same period.

3. Reserves and Stocks:

a. Review the implementation of the commodity use offset (CUO) provision for maintaining reserves.

The commodity use offset provision calls for forgiveness if the BDG uses Title III wheat for foodgrain reserves for one year after the arrival of each individual shipment. During this year the BDG must meet foodgrain benchmark stock levels of 1.1 million tons on July 1 and 0.9 million tons on November 1. The FY 1981 Title III wheat shipments did not arrive until October 1981 so this provision cannot be reviewed and evaluated until October 1982.

b. Review BDG performance in building stocks and holding reserves in a good supply situation.

The current high levels of stocks are due to a combination of large commercial purchases that arrived after the 1979

drought had passed, heavy procurement from the 1980-81 crop year, and normal food aid shipments. Table ? shows by month the stock levels, imports, procurement and offtakes from July 1979 through September 1981. Stock levels increased rapidly from the low point in June 1979 through September 1979 due to imports. The level remained nearly constant until July 1980 when it jumped during the summer due to substantial imports and domestic procurement. Stock levels remained high during 1981 due to domestic procurement. Offtakes declined approximately one-third from 1979/80 to 1980/81, thereby contributing to the good stock position. The stock levels rose in September 1981, due to imports but heavy offtakes in September, October and November prior to the Aman harvest are likely to reduce stocks so that there will be adequate storage space for new procurement.

c. Assess the importance of Title III shipments in maintaining the November 1 and July 1 benchmark levels.

Although the benchmark levels do not become effective until November 1, 1981, it is interesting to review the impact of Title III shipments on stock levels on these dates in the past. Title III wheat shipments normally arrive in late summer and early fall and thus help to maintain stock levels when offtakes traditionally are heavy. Title III shipments in August and September of 1979 and 1980 helped to build stocks.

TABLE 2: STOCKS, IMPORTS, PROCUREMENT AND OFFTAKES, 1979-81  
(In 000's of Long Tons)

<u>Date</u>	<u>Stock Level</u> <sup>a/</sup>	<u>Imports</u>	<u>Procurement</u> <sup>c/</sup>	<u>Total Offtakes</u>
July 1979	419 <sup>b/</sup>	410 (110) <sup>d/</sup>	-	200
August	645	451 (10?)	-	225
September	892	495 (81)	-	247
October	776	155 (49)	-	277
November	760	196	10	223
December	813	127	89	168
January 1980	747	56	53	174
February	609	27	16	182
March	677	242	20	194
April	608	74	57	200
May	684	191 (72)	47	162
June	779	304 (238)	57	150
Fiscal Year Total:	NA	2,728	349	2,402
July	1,042	304 (90)	69	105
August	1,239	228	74	205
September	1,310	126	77	133
October	1,329	91	71	211
November	1,305	56 (20)	43	123
December	1,301	30	128	89

TABLE 2: STOCKS, IMPORTS, PROCUREMENT AND OFFTAKES, 1979-81  
(CONTINUED)  
(In 000's of Long Tons)

<u>Date</u>	<u>Stock Level</u>	<u>Imports</u>	<u>Procurement</u>	<u>Total Offtakes</u>
January 1981	1,366	15	169	108
February	1,329	-	113	140
March	1,240	18	61	158
April	1,246	77	96	157
May	1,147	-	53	142
June	1,219	115	62	119
Fiscal Year Total		1,060	1,016	1,522
July	1,263	71	57	89
August	1,202	30	48	88
September	1,349	248 (156)	45	160
October	1,294	152 (48)	27	245

a/ Month-end stocks

b/ June 1979 level was 209

c/ Paddy, rice and wheat, paddy in terms of clean rice

d/ Title III imports in brackets

Without these shipments the July 1, 1981 benchmark, would not have been maintained. The FY 81 Title III shipments were not necessary to meet the November 1, 1981 benchmark, but will be helpful if the July 1, 1982 benchmark is to be achieved.

- d. Review the performance of the OMS program to see that it was properly operated at all times that stock levels exceeded 500,000 tons.

OMS performance is reviewed thoroughly in Section 4 of this evaluation. Stock levels have been adequate since August 1979 to support OMS operations whenever price conditions have warranted it.

4. Open Market Sales (OMS):

- a. Was OMS undertaken when circumstances required it in accordance with the provisions of the Agreement?

September 1981 was the first time in nearly two years that wheat and rice prices rose sufficiently high to make the OMS prices attractive. Local officials publicized the program by beating drums, making loudspeaker announcements in the market, and having dealers sign the notification. The provisions of the Agreement were met in the actual operations except that the revised anti-hoarding law resulted in unlicensed dealers being restricted to 30 maund lots per day rather than 200 maunds. Licensed wholesale and retail dealers can buy up to the full 200 maunds per day because the anti-hoarding law was revised to allow them to hold up to 5,000 maunds and 250 maunds respectively.

The regulations governing OMS were not changed until September 29, 1981 when the BDG issued a new OMS circular. As a result, the OMS in September consisted entirely of wheat. OMS in October, however, included 35 per cent rice, 29 per cent paddy and 35 per cent wheat as a result of the new circular. This even commodity breakdown indicates the commodity provisions of the June 26, 1981 Amendment are being implemented. OMS amounted to 2,494 Long Tons in September and 3,198 Long Tons in October. There may also be small amounts of OMS in November 1981.

- b. Were sufficient commodities provided to all areas where prices were such as to warrant OMS?

The analysis of preliminary data indicates that commodity availability has not been a barrier to OMS in areas where prices warrant it. Stocks are high this year and most local storage depots can obtain additional supplies within a matter of days when necessary.

The OMS activity appears to have contributed to a halt in price increases in areas where it operated. Normal price trends resulting from the impending aman harvest also were important with respect to the decline in rice prices.

- c. Was retail OMS undertaken by dealers without BDG restrictions on prices, quantities, location of sale, or the eligibility of consumers - buyers?

The BDG's circular instruction of September 29, 1981 is explicit in not putting any restrictions on the resale of OMS commodities. In the June 26, 1981 amendment the word "consumer"

is used to describe those individuals who buy OMS grain from the people who bought it from the Ministry of Food. This word choice has been followed in the BDC Circular and has created some misunderstanding. The Country Team used "consumer" to mean the next level of buyers who may use or resell the grain depending on personal preference. Local BDC food officials have interpreted consumers to be only those who use the grain for personal consumption. To prevent this problem in the future the word "consumer" should not be used in the new multi-year agreement.

OMS activities have been affected by the nature of the grain market. Credit is pervasive throughout the whole system, so that OMS on a cash basis represents a significant departure from normal trade practice. The need for cash means that the market prices need to be slightly higher than expected before OMS becomes attractive. The large buyers are more likely to have access to cash than are small traders or retailers who receive grain entirely on a credit basis. The fact that OMS is limited to cash sales, therefore, tends to mean large traders are more likely to participate in the program than small traders or retailers.

- d. Were OMS prices set and maintained through periodic adjustments at an appropriate level?

The new regulations set the OMS rice price at Taka 200/maund for non-SR areas and Taka 210/maund in areas served by SR. The

basic OMS price is about 15 percent higher than the current procurement price. Rice is available at all times at this price, though it generally would not be attractive to buyers until market (retail) prices were about Taka 10 above the OMS price. The wheat OMS price bears a similar relationship to the procurement price. The new regulation included a schedule for adjusting the OMS price as market prices rise. The operation of OMS and changes in prices are handled at the local level without approval by higher authorities in the Ministry of Food. The OMS prices and adjustment mechanism are in keeping with the Title III amendment.

A critical feature of OMS is the quality of rice offered which varies from day to day even in the same LSD, based on first-in, first-out stock rotation procedures. Samples of the OMS grains of the day are shown to potential buyers and probably should be displayed at the LSD whenever there is a chance that they might be attractive to traders. The reason this is needed is that the quality of potential OMS rice varies from coarse to high medium so the wholesale value could vary by as much as Taka 30/maund. The BDG is studying grain standards now. Implementation of a system of grain standards which distinguishes between types and qualities of grains would help the management of OMS.

e. Other Considerations:

The application of OMS to rice and paddy is new with this Agreement. This is a major step because rice is the basic food of the country and rice OMS is much more effective than wheat OMS in moderating rice prices. The problem is that the offset procedure for rice and paddy is linked to wheat sales to flour mills. In a year with heavy rice OMS, the value of the OMS grain could be much greater than sales to flour mills, which are about 120,000 tons per year. A straight wheat for rice swap based on equivalent values would be a much simpler and more expedient measure than possibly waiting several years for wheat sales to flour mills to amount to the rice OMS done in a single year.

5. Assuring incentive prices to farmers through the domestic procurement program:

The excellent procurement effort in fiscal year 1980/81 by the BDG is clearly demonstrated by a total procurement level 85 per cent greater than the previous record in fiscal year 1977/78. The effort is also indicated by the fact that procurement as a percentage of production reached a new high of 6.4 per cent in 1980/81 compared to 4.6 per cent in 1977/78. The BDG mobilized several kinds of resources to undertake this program which resulted in the procurement of 946,200 long tons of crop produced in 1980/81. Temporary storage facilities were increased through hiring warehouses and taking over other government facilities.

Permanent storage facilities increased rapidly through the self-financed "crash" construction program. Restrictions on private grain traders were substantially eased.

- a. Did the BDG announce procurement prices for each major foodgrain crop before the planting season?

The BDG made an announcement of the procurement price for each grain crop before the beginning of the procurement season, not the planting season. The procurement prices become floor prices that are not reduced. Therefore, the announced procurement price for the crop being harvested and procured is at the same time the floor price for the next crop which is being planted or about to be planted. The farmer is assured of at least that procurement price. The USG believes the program will be more effective if planting season announcements are made. The BDG has provided the USG assurances that a 1982 boro procurement price will be announced before the planting of this crop.

- b. Was the procurement price set at a level that covered all input costs plus a margin of profit sufficient to encourage investment in high yielding variety technology?

Although the use of HYV technology has continued to increase in Bangladesh, USAID feels that the BDG has not adequately increased the procurement price to either keep up with increases in costs of agricultural inputs or reflect the value of foodgrains to the economy.

In the last several years, the cost of agricultural inputs has increased much more rapidly than output prices. Gilbert T. Brown in a recent paper indicated that "while growers'

harvest-time paddy prices are estimated to have risen only 16 per cent between FY 79 and FY 81 aman harvests, agricultural wage costs are estimated to have increased by 40 per cent, fertilizer prices by 59 per cent, and irrigation operation and maintenance costs by 95 per cent." Farmers will invest in HYV technology only if they can foresee profit margins sufficient to offset the increased risks involved. Increases in output prices are clearly becoming necessary to ensure such margins.

- c. Did the BDG continue procurement operations whenever farmgate prices were below the procurement prices?

As mentioned above, the BDG aggressively procured foodgrains in the last year. Procurement operations were generally continued whenever farmgate prices were below the procurement prices and storage was available. The BDG actively took steps to eliminate all constraints to procurement. In spite of these efforts there were times and places where more procurement could have taken place if more warehouse space had been available. (See Table 3.) The continuing warehouse construction program will help assure that this does not happen in the future.

- d. Was there full and adequate use of private intermediaries?

Virtually all of the procurement took place through the means of private individuals bringing grains to Ministry of Food facilities voluntarily. The procurement of approximately one million tons of grain in a one year period demonstrates full and adequate use of private intermediaries in the procurement process.

Other steps have been taken to encourage the private grain trade. Particularly important has been the relaxation of the restrictions imposed on grain trading through the Anti-Hoarding Laws. The following summarizes the changes which have taken place:

BDG Anti-Hoarding Laws in Practice  
For Foodgrains (For Licensed Dealers)

<u>Effective Date</u>	<u>Maximum Amount That Can be held (In Maunds)</u>		<u>Time Limit</u>
	<u>Retailer</u>	<u>Wholesaler</u>	
November 11, 1979	30	300	7 days at one location and 20 days at different locations.
August 4, 1980	100	1,000	No Time Limit.
January 3, 1981	250	5,000	No Time Limit.

d. Did the BDG continue to construct foodgrain storage facilities?

Government-owned permanent foodgrain storage capacity increased by 257 thousand long tons between July 1980 and October 1981. The work in progress and firm commitments will result in continued increments through 1982. Limited Government funds may reduce plans somewhat, but the total of Government-owned permanent storage is expected to reach between 1500 and 1,600 thousand metric tons by the end of 1982. The hired storage, if retained, would boost the total to nearly 2 million tons. Given present stocks, production, imports and consumption trends, storage should not, in general, be a constraint to procurement so long as grain movements among regions occur in order to provide space in heavy procurement areas.

Table 3 summarizes changes in the storage position.

TABLE 3: CHANGES IN PUBLIC FOOD STORAGE CAPACITY

	<u>Capacity</u>	<u>Government Owned</u> (Thousands)	<u>Change in Government Owned</u> (Thousands of Long Tons)	<u>Hired</u>	<u>Change in Qty. Hired</u>	<u>Storage Capacity Utilized</u> (%)
July 1980	1309	1159	-	150	-	80
August	1320	1165	6	155	5	94
September	1335	1177	12	158	3	98
October	1429	1178	1	251	93	93
November	1445	1180	2	265	14	90
December	1488	1212	32	276	11	87
January 1981	1499	1223	11	276	0	91
February	1565	1226	3	339	63	85
March	1565	1226	0	339	0	79
April	1671	1331	105	340	1	75
May	1683	1333	2	350	10	68
June	1685	1335	2	350	0	72
July	1712	1352	17	360	10	74
August	1720	1370	18	350	-10	70
September	1733	1333	13	350	0	78
October	1766	1416	33	350	0	73
Total July 1980 - October 1981			257		200	

- e. In short, was the foodgrain procurement program effectively administered in order to maintain support prices?

As described above the BDG made considerable efforts to administer an effective procurement program. The results of their actions was a program which managed to procure a million tons of grains in one year. The June 26, 1981 amendment to the Title III Agreement does not incorporate a benchmark for evaluating price movements. Previous amendments had used an arbitrary level of farmgate prices of no more than ten taka below the procurement price as acceptable. The ten taka standard was dropped in the June 26, 1981 amendment because there was no study to support its validity. In 1980/81 farmgate prices were generally not maintained within ten taka of the procurement price in the major procurement areas (see separate paper on this subject). Farmgate prices are lower than ten taka below the procurement price because the small trader performs a function of considerable economic value in drying, cleaning, collecting, transporting and reselling grain. While there is no simple statistical gauge of the success of the procurement program in supporting prices, given the size of the total procurement and the relatively inelastic demand for foodgrain in Bangladesh there could not but have been a strong impact on prices. Under these circumstances, it is clear prices would have fallen much more if the BDG had not been able to procure as much as it did. The procurement program has been very successful in acquiring stocks of foodgrains. The holding of these stocks in itself has contributed to price stability in the last year (Table 4).

6. Phase down of the Public Food Distribution System (PFDS):

The PFDS consists of all activities associated with Government held food stocks; the ration system; O.iS; Food For Work and other relief activities; flour mills; and other offtakes. The phase-down of the PFDS called for is directed primarily at the ration system. Other offtake mechanisms are necessary so long as the BDG hold food-grain reserves.

- a. Was the total ration quota for individual cardholders reduced?

The foodgrain ration per cardholder was reduced on January 3, 1981 from 3.0 to 2.5 seers per week (See Table 4).

- b. Was the rice portion of the ration reduced?

On January 3, 1981, the rice portion of the ration was reduced from 33 to 30 percent of the total ration. The rice share had previously been reduced from 50 percent of the ration on May 3, 1980.

- c. Were prices gradually moved up so that the subsidy element was reduced?

On April 11, 1981 the rice ration price was increased from Tk.140 to Tk.155.2 per maund, or from 80 percent to 38.7 percent of the procurement price. At the same time of the change, the ration price was approximately 84 percent of the market price although the ratio rose to 90 percent in September, 1981 as market prices fell (prices rose rapidly in late September, however). The wheat ration price was raised at the same time and was higher than both the procurement price and market prices through September 1981.

Table 4.

Indicators of Food Security Progress  
Weekly Ration Quotas and Prices:

	Weekly Quotas (Quantity in Seers)			Ration Price (Price Tk/Md)	
	Rice	Wheat	Total	Rice	Wheat
From May 19, 1979	1.5	1.5	3.0	120	90
From May 3, 1980	1.0	2.0	3.0	140	110
From January 3, 1981	.75	1.75	2.5	140	110
From April 11, 1981	.75	1.75	2.5	155.2	116

Retail Foodgrain Prices in Bangladesh

	R i c e		Wheat
	Coarse (Taka per Maund)	Medium	
July, 1980	166.5	206.9	109.3
August	158.2	203.6	107.3
September	158.2	201.4	122.0
October	156.2	201.1	110.2
November	157.3	191.8	111.8
December	156.9	176.6	107.7
January, 1981	160.2	177.2	
February	168.1	183.9	
March	174.1	189.5	
April	184.1	214.8	106.5
May	194.6	214.6	107.7
June	175.9	209.5	108.6
July	171.5	211.1	110.3
August	170.8	212.1	110.2
September	171.7	215.4	114.2
October	188.6	226.7	118.4

- d. How do this year's ration offtakes compare to previous years in which there was a similar foodgrain supply situation ?

	<u>Total Offtakes</u> (000 MT)
1977-78	1,847
1978-79	1,797
1979-80	2,402
1980-81	1,522

As the table indicates total offtakes were considerably lower in 1980-81 than in the previous year when offtakes were unusually high as a result of drought. The offtake in 1980-81 was also less than in 1977-78, which was similar in terms of the aman procurement. The effect of the change in ration quota and prices is evident in the first quarter of BDC FY 1981-82 by comparing July, August and September 1980 and 1981. The SR offtakes declined from 124,000 tons in 1980 to 101,000 tons in 1981. This decline is particularly significant because the 1981 aus crop was poorer than 1980 so higher rather than reduced offtakes could be expected.

- e. Was the ration system increasingly directed towards those with the greatest need ?

While statutory and modified rationing have not been directed towards those with the greatest need, there has been change in this direction, primarily because of growth in the Food For Work category (as Table 5 indicates). Also there has been a slight increase in relief offtakes.

Table 5. PFDS Offtake of Foodgrain by Category Since BDG FY 1977-78:  
( In Long Tons )

	<u>FY-1977/78</u>	<u>FY-1978/79</u>	<u>FY-1979/80</u>	<u>FY-1980/81</u>
1. Statutory Rationing Percentage	451,010 24.4%	417,149 23.2%	491,404 20.5%	342,910 22.5%
2. Modified Rationing Percentage	352,732 19.1%	311,583 17.3%	384,569 16.0%	179,138 11.8%
3. Essential Priorities Percentage	121,777 6.6%	94,952 5.3%	84,069 3.5%	87,651 5.8%
4. Other Priorities Percentage	327,261 17.7%	392,622 21.9%	538,734 22.4%	357,193 23.5%
5. Large Employers Percentage	39,066 4.8%	75,413 4.2%	105,994 4.4%	30,768 2.0%
6. Flour Mills Percentage	214,925 11.7%	182,932 10.2%	178,368 7.4%	124,855 8.2%
7. Marketing Operation Percentage	5,530 0.3%	8,932 0.5%	10,068 0.4%	19 0%
8. Open Market Sales Percentage	- -	52,811 2.9%	110,883 4.6%	124 0%
9. Food For Work Percentage	254,669 13.8%	215,892 12.0%	440,431 18.4%	349,305 22.9%
10. Relief Percentage	30,160 1.6%	44,550 2.5%	57,090 2.4%	49,936 3.3%
Total Percentage	1,847,130 100%	1,796,836 100%	2,401,610 100%	1,521,899 100%

Source: Directorate of Food.

- f. Were IR sales restricted to category A cardholders?

The 1980-81 Amendment does not require this restriction.

There has not been an effort to enforce this restriction.

- g. Was the OMS program, rather than increased ration offtakes, the principal source of reasonably priced grains in times of rising prices?

Prices did not rise substantially in 1980-81 so OMS did not occur. Ration offtakes also declined during this period.

7. Activities and Performance of the Food Planning and Monitoring Unit in Developing and Implementing Food Policy:

The Food Planning and Monitoring Unit has been reorganized and expanded into the Food and Fertilizer Planning and Monitoring Secretariat (FFPMS). The FFPMS has been carrying out its designated role by doing studies and analyses in policy areas which reach across the interests of the several Ministries which deal with food production and consumption programs. The FFPMS has done the staff work for the Council Committee on Food, a Ministerial level group which makes decisions on the food sector.

FFPMS staff have been receiving training appropriate to their roles. Two senior members of the food unit have attended USDA short courses. Fertilizer staff members have similar training planned.

The technical assistance to the FFPMS which has been planned for the last year is about to begin. A contractor has been selected for the foodgrain forecasting assistance and two individuals have been chosen for the assignment. Discussions are under way to select a contractor to undertake the other portions of the assistance.

8. Use of proceeds generated from the sale of Title III commodities:

Total proceeds generated under the project are the Taka equivalent of \$81.7 million. Of this amount \$80 million has been disbursed for approved development projects and certified to Washington for application to Title I and III loan obligations. The Taka equivalent of \$67.2 million has been disbursed for the fertilizer project and the remaining \$ 12.8 million for the shallow and deep tubewell projects. The shallow and deep tubewell projects and the remainder of the mutually agreed projects for Title III funding are all Irrigation projects which are considered central to the Medium Term Foodgrain Production Plan. On June 30, 1981 there were 22,899 shallow tubewells irrigating 275,000 acres and as of October 7, 1981 there are 24,209 shallow tubewells irrigating 290,000 acres. Deep tubewells have **hardly**, increased in the short period since May when Title III funds were transferred to the projects although that is not unexpected since drilling stops during the monsoon. Initially, Title III project disbursements have contributed to the achievements of the shallow tubewell project. Because the BDG is facing a severe local currency shortage resulting from reduced commodity aid and lower generations from grain sales, the assured financing provided under Title III is an **important** guarantee of funding in this key subsector.

Were there any constraints in this disbursement or certification processes?

Several aspects of the management of the Special Account required attention in the last year. These include amending the project list in the agreement to allow for higher disbursements for the fertilizer project

and establishing a procedure for BDG certification of deposits and disbursements. One problem which came to light in the past year and will remain with the program until legislation is amended is the limitation on the use of Title III disbursements to meet Title I loan obligations for the year in which the Title III disbursements were made. With the exception of this limitation on Title I payments, procedures relating to the Special Account are working in a satisfactory manner.

Actual disbursements for the fertilizer project in BDG fiscal year 1979-80 were a little more than one billion Taka. The Title III Agreement, however, allowed only 700 million Taka for this project. Further disbursements for the fertilizer project were no longer approved by the USG after the end of BDG FY 1979-80. In order to allow full forgiveness under the Title III program, implementation letters were exchanged increasing the authorized project level to the amount disbursed. The additional fertilizer project disbursements were certified to Washington for currency use offset.

In order to provide an audit trail of back up documentation, the USG has required a copy of BDG Government Order (G.O.) to substantiate Special Account deposits and disbursements. To incorporate this requirement into the official project correspondence, a new format for the quarterly report on the Special Account was developed with the External Resources Division of the Ministry of Finance. This format includes a listing of the G.O. numbers and dates as well as the quantities of Title III commodity sold and the amounts of Taka deposited or disbursed. The quarterly report now includes a BDG certification

that the relevant back up documentation in addition to the G.Os. are being maintained by either the Ministry of Food or the appropriate project implementing agency. The Country Team believes that the redesigned quarterly report and the certification by the External Resources Division provide a fully adequate audit trail for the use of Title III local proceeds.

As mentioned above, use of Title III disbursements to meet Title I payment obligations will remain a problem until the PL-480 legislation is amended. Section 305 (B) of P.L. 480 permits disbursements from the Special Account occurring during a fiscal year, which are in excess of the Title III repayment obligations due in that same fiscal year, to be applied against payments arising under other Title I agreements. This provision of Title III legislation is needed in Bangladesh as there have been Title I programs in Bangladesh since 1973. Bangladesh is now suffering from an extreme shortage of foreign exchange and even under more normal circumstances can ill afford to make Title I payments. Certified disbursements from the Special Account are greatly in excess of the amount required to meet Title III repayment obligations for the next several years. The only problem is meshing new disbursements in a fiscal year with the timing of Title I repayments. Most of the Title I repayments happen to come due in the first quarter of the U.S. fiscal year. Deposits to the Special Account are limited by the timing of the sale of the wheat and now also soybean oil provided under Title III. Wheat sales are made only through modified rationing or Open Market

Sales. This year OMS is taking place and MR offtakes will be larger than last year, so generation of Taka should not be as much of a problem in FY-1982 as it was last year. The problem will be disbursing enough Taka early in the fiscal year to meet Title I obligations as they come due. During U.S. FY-1981 the disbursements came late in the year and the BDG was charged interest for not making Title I payments on time. In FY-1982 the majority of the payments should be met on time, but the whole procedure remains awkward and inappropriate. Disbursements to development projects should not have to be considered in the same context as arbitrary loan repayment schedules for old debts. In future years the flow of the Title III commodity sales and project disbursements may result in the BDG again being charged interest for not meeting payments on time.

9. A new problem - the management of foodgrains.

The BDG faces a new problem in managing large stocks of foodgrain which were purchased to support prices and are being held as part of the foodgrain reserve. Since steps have been taken to reduce ration offtakes, this foodgrain stock is not turning over as rapidly as necessary to maintain the stock quality. The OMS program cannot be counted on to rotate stocks because OMS offtakes are determined by market demand and, therefore, OMS functions only when prices are high. The amount of commodity which must be rotated, on the other hand, is determined by the shelf life of the stocks tends to become most acute when OMS is least likely to function.

Therefore it is necessary for the BDG to create a new mechanism for marketing foodgrains before the aman harvest at prices and in amounts which reflect only the quantity of stocks which must be rotated and at the same time realize the highest market price these grains with a short shelf life can command.

The BDG has begun to experiment with some alternative mechanisms to move commodity. One mechanism, known as "Marketing Operations", was authorized for 20 shops in the Dacca area. Rice was sold to all takers with no requirement for a ration card. Individuals could buy up to five seers. The rice price was Tk.200 per maund which is the same as the OMS price in areas other than SR areas. This compares to the rice procurement price of Tk.175 per maund and the ration price of Tk.155 per maund. The program seems to offer a partial model for rotating stocks which could serve the additional purpose of reducing the need for SR rationing. The merits of this mechanism are several. First, if authorized to sell commodity at a price which will result in moving fairly substantial stocks, this program helps directly in stock management through rotation. Second, the commodity is sold at a price considerably above the procurement price. This program, along with OMS, could lead to a self-sustaining food budget with sales proceeds covering both the costs of procurement and the operating costs of the Food Directorate. Third, since the commodity is sold only in the high price preharvest period, Government supplied grains are not flooding urban markets all year thereby creating disincentives to private distribution channels and domestic production.

Fourth, everybody has equal access to the commodity. However, the "Marketing Operation" program has obvious flaws which make it less than an ideal rotation mechanism. The fixed prices used have required that the BDG provide better grades of rice for the commodity to move. If the program cannot move the worst quality rice in the warehouses, then it cannot serve to rotate stocks. Also the mechanism again puts the Government into a ration type program for foodgrain which is undesirable.

Another new BDG experimental mechanism for rotating stocks is referred to as "Free Market Sales." This program entails selling short shelf life stocks of aus and boro at the very low prices that ration dealers pay to lift grain. The mechanism utilizes traders or merchants who in turn resell or market the grain. In this instance, the low fixed price provides a temptation for local level food officials to conspire with the traders to provide a better quality of grains at the low fixed price. The price also may be below market prices for the quality of rice offered so that dealers will pay bribes to get it. In addition, this mechanism may also add to the subsidy burden if the price is set lower than it needs to be to move the stocks.

In short, the stock rotation methods introduced thus far have served a useful purpose, but have major flaws. A stock rotation program, building on the experience gained to date and avoiding as far as possible these undesirable features, will be described in the new Title III Agreement as a precondition to allowing a reserve

component whereby Title III grain is utilized for commodity use offset. As was the case in the June 26, 1981 amendment, we propose to forgive the value of the FY-1982 wheat shipments one year after their arrival if recommended stock levels are maintained and the OMS program is stopped only for inadequate commodity availability. Proper rotation of stocks to maintain quality is an intrinsic part of a foodgrain reserve system.

In July or August of every year the BDG should prepare a list of lots of grain in specific sites which need to be rotated in September, October and early November. These specific lots of grain should be auctioned or let for tender so that the BDG can recover the full, or at least the market value of the commodity. This should be done without moving stocks which can be safely retained or providing a windfall to traders. This rotation mechanism has none of the advantages of either the "Marketing Operation" or the "Free Market" systems, and should be more easily managed.

Drafters:

November 20, 1981

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Assessment of Foodgrain Procurement, 1977/78-1980/81

A. Procurement Results

Table 1 presents a summary of foodgrain procurement by crop for BDG fiscal years, 1977/78 though 1978/81. Overall procurement in FY 81 reached 1,016,000 tons, nearly twice the level of FY 78, the previous record year, and nearly three times the procurement level of FY 80. Procurement of aus and boro rice were by far the highest on record, and wheat procurement continued on the strong uptrend underway since FY 78.

Table 1  
Foodgrain Procurement BY Crop, 1977/78-1980/81 <sup>a/</sup>  
(In thousand long tons of rice equivalent)

	BDG fiscal years ending June 30				% Inc. 1980-81
	1978	1979	1980	1981	
Aus	1.6	18.6	-0-	86.9	-
Aman	500.8	199.0	176.1	501.3	185
Boro	<u>37.0</u>	<u>80.8</u>	<u>49.8</u>	<u>252.8</u>	<u>408</u>
Subtotal rice	539.4	298.4	225.9	841.0	272
Wheat	11.0	52.9	123.3	175.8	43
Total foodgrains	550.4	351.3	349.2	1,016.8	191

Note: (a) Table shows procurement during the crop years indicated regardless of when the grain itself was grown. The data covering boro, in particular, includes rice procured from the previous as well as current year's crop.

Source: Directorate and Ministry of Food.

The FY 81 procurement program required an unprecedented expenditure of scarce financial resources. Payments for foodgrains alone amounted to Taka 4.6 billion, the significance of which can be seen in the context of the BDG's overall current expenditure budget of Taka 14.1 billion. Among the measures taken to enable this achievement were:

(1) A refinement and liberalization of the payment system. Buying centers issued Weight Quantity Stock Certificates (WQSC) to sellers and dealers upon delivery of grain. Payment was made by local branches of the commercial banks for a small commission (Tk. 0.75 per maund) upon presentation of the WQSC. The commercial

banks were then reimbursed by the Government upon the presentation of consolidated statements. All in all the new system worked well and no complaints concerning lack of funds were received either from temporary procurement centers or at the thana level.

(2) A sharp increase in the number of procurement centers. In an effort to reach remote farmers, the number of Temporary Procurement Centers (TPCs) was raised to 361 from the 259 operating in FY 80. In a related effort, the Government authorized union councils and grain sarkers (villages) to procure grain on their own. While the amounts actually purchased by these levels of government were relatively small (estimated at 60,000 tons), they did spread the procurement effort even further and closer to the small producer.

(3) A major effort to expand foodgrain storage facilities. While storage facilities were inadequate to accommodate all of the grain that might have been purchased in FY 81 (see Section D below), the BDG's efforts in this area were instrumental in enabling the volume of procurement that did take place.

Early in FY 81, the BDG undertook a program to expand permanent foodgrain storage facilities by 386,000 tons; 200,000 tons through the Government's "crash" program utilizing its own resources, and another 186,000 tons under projects utilizing assistance from the International Development Agency, Asian Development Bank, Federal Republic of Germany, Japan and the Netherlands. Altogether, 772 warehouse units were to be constructed. Progress on these projects during the year was commendable. A good number of them were functional by the middle of the year. As of June 30, 1981 a total of 347 units (173,500 tons) had been completed and handed over. This brought total Government owned storage capacity to 1.35 million tons. The next 155 units (77,500 tons) were expected to be ready by November, 1981 followed by another 152 units (76,000 tons) by the end of December, 1981. This will bring Government owned storage capacity to 1.5 million tons. The final 118 units (59,000 tons) under these schemes are either in the early stages of construction or not yet started.

A relatively high proportion of the new warehouses are in surplus production areas where storage pressure is the greatest. Care has also been taken to ensure that some units are located in the more remote areas with poor transportation connections. This will allow procurement in these areas and the holding of security stocks for emergency periods.

Other efforts to increase total storage capacity included a scheme to repair dilapidated warehouses to bring them back into use, measures to increase the number of hired private warehouses, and the requisitioning of space available at railway sheds, Thana Training and Development Centers, schools and empty warehouses of various government agencies. Hiring and requisitioning of private and government warehouses increased from 150,000 tons on June 30, 1980 to 356,000 tons on June 30, 1981.

In sum, the BDG undertook a most impressive effort to maximize procurement.

#### B. Foodgrain Production and Procurement

In Section A, the focus was on the procurement effort per se. Accordingly, Table 1 showed procurement of each crop during each fiscal year without regard to the year in which the crop itself was produced. Since in this section we wish to relate procurement of each crop to the size of that crop, Table 2 (below) shows procurement of the crop grown in the year indicated, regardless of the year of actual purchase. The effect of the different treatment is best illustrated, and most marked, in the case of boro rice. Table 1 showed 252,800 tons of boro rice procured in FY 81, but of this amount only 40,400 tons were from the FY 81 crop, 212,400 tons from the FY 80 crop. Table 2 (below) shows FY 81 boro procurement as 195,000 tons, all of it from the FY 81 crop. Of this amount, 40,400 tons were procured in FY 81 and an estimated 154,600 tons in FY 82. Much lesser differences exist with regard to aman and wheat, but because of the wide differences in boro, there is considerable variation in the procurement totals as between the two tables.

As shown in Table 2, foodgrain production increased by 10 percent in FY 81 to a record 14.7 million tons. Procurement of the FY 81 crop rose 61 percent to a record 946,200 tons which in turn was 6.4 percent of the crop itself - again a record. The overall record, however, conceals some interesting developments with regard to the individual crops.

(1) Aus - Aus procurement in FY 81 reached 86,900 tons or 2.7 percent of the crop. The 1979 drought renders comparison with the previous year's record meaningless (no aus was purchased from the FY 80 crop), but as comparison with FYs 78 and 79 shows, the FY 81 performance was altogether unprecedented. As a wet season crop, aus is relatively difficult to handle; there is, for one thing, a shortage of needed drying equipment. Leaving aside the question

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Table 2

Foodgrain Production and Procurement By Crop, 1977/78-1980/81

	<u>Crop Year</u> <u>Ending June 30</u>	<u>Thousands of Tons</u> <u>Production</u>	<u>of Tons</u> <u>Procurement<sup>a/</sup></u>	<u>Procurement as</u> <u>% of Production</u>
(1)	<u>Aus</u>			
	1978	3,153	1.6	0.1
	1979	3,288	18.6	0.6
	1980	2,809	-0-	-0-
	1981	3,236 <sup>b/</sup>	86.9	2.7
(2)	<u>Aman</u>			
	1978	7,422	502.6	6.8
	1979	7,429	197.4	2.7
	1980	7,303	177.1	2.4
	1981	7,837 <sup>b/</sup>	501.3	6.4
(3)	<u>Boro</u>			
	1978	2,239	79.8	3.6
	1979	1,929	1.0	0.1
	1980	2,427	262.2	10.8
	1981	2,586 <sup>b/</sup>	195.0 <sup>c/</sup>	7.5
(4)	<u>Wheat</u>			
	1978	343	13.2	3.9
	1979	486	50.7	10.4
	1980	810	148.9	18.4
	1981	1,075 <sup>b/</sup>	163.0	15.2
(5)	<u>Total Foodgrains</u>			
	1978	13,107	597.2	4.6
	1979	13,132	267.7	2.0
	1980	13,349	588.2	4.4
	1981	14,734 <sup>b/</sup>	946.2	6.4
			4,690	3.5

Notes: <sup>a/</sup> Procurement of the crop grown in the indicated crop year, not necessarily the year of actual purchase.  
<sup>b/</sup> Recently revised estimates.  
<sup>c/</sup> Estimate based on procurement as of Nov. 15, 1981.

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of whether the BDG should, or could, have procured more aus than they did (given the general failure to support farmgate prices, on the one hand, and storage constraints on the other), the record high level of FY 81 procurement indicates a definite willingness to overcome traditional problems in the area of aus procurement.

(2) Aman - Although the FY 81 aman crop was the highest on record, procurement of the crop, at 501,300 tons, was virtually the same as in FY 78 when production was 400,000 tons lower. Similarly, the percentage of crop procured was lower, at 6.4 percent, than the 6.8 percent registered in FY 78. Not only the size of the crop but also the failure to support prices in many of the principal producing areas (see Section C), suggest that more aman should have been procured in FY 81. However, since the authorities were clearly constrained by lack of storage facilities (see Section D), it would be premature to term the aman procurement performance a failure.

(3) Boro - Revised data indicate, contrary to the earlier estimates, that FY 81 boro production was at a record high level along with all other FY 81 foodgrain crops. However, procurement of the FY 81 crop fell quite sharply, from FY 80, both in absolute terms and as a percentage of the total crop. Since farmgate prices in key producing areas were generally below "acceptable" levels (by Title III standards) and the storage crunch had by then eased, the reason for this is not readily apparent.

(4) Wheat - Both wheat production and procurement continued the steady expansion of recent years. However, the ratio of wheat procured to total crop declined from 18.4 percent in FY 80 to 15.2 percent in FY 81. The declining share of crop procured is most likely attributable in part to the storage constraint, although as is the case with boro rice which is harvested at roughly the same time, the storage constraint did not affect wheat to as great an extent as aus and aman (see Section D).

### C. Farmgate vs. Incentive Prices in FY 81

The Title III Agreement provides that the BDG will support foodgrain prices at levels sufficient to induce investments in HYV technologies. The present amendment to the agreement specifies further that announcements of procurement prices will be made well in advance of the related planting seasons in order to provide the desired effect on farmers' intentions, and it is understood that this provision is to apply to the aman season in particular. No such announcement was made in advance of the FY 82 aman season.

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Apart from the announcement itself, success or failure of the procurement program is normally judged by the level of farmgate prices during the course of the year. The benchmark for this purpose is that farmgate prices should be no more than 5 to 10 Taka below the procurement price. The benchmark criterion has not been examined in recent years and may well be in need of review as a yardstick with which to measure performance. We use it here as the only yardstick available to us.<sup>a/</sup> Another measurement problem arises in the absence of a complete and consistent series of farmgate prices. Accordingly, after some effort, we have dropped the attempt to derive a meaningful series of farmgate prices.

Whole sale rice prices, on the other hand, are readily available. Assuming that the wholesale price less the 5 Taka transportation bonus is roughly equal to the farmgate price, we have defined an initially "acceptable" wholesale price as Taka 100 per maund during the period July 1, 1980 to Nov. 14, 1980 and Taka 105 per maund from Nov. 14, 1980 to the end of July 1981. We have then compared the "acceptable" wholesale prices with prevailing wholesale prices for paddy in areas accounting for 80-85 percent of procurement of the respective crops during the months in which most of the procurement of those crops takes place. Table 3 (below) summarizes the findings of a study of wholesale prices in subdivisions<sup>b/</sup> accounting for 80-85 percent of total rice procurement.<sup>c/</sup> As may be seen, the percentage of subdivisions reporting "acceptable" prices, by the Title III criterion, ranged from a low of 7 in August (aus) and December (aman) to a high of 41 in May (boro). Average wholesale prices reported by the subdivisions surveyed ranged from Tk. 88.1/md. in August (aus) to Tk. 101.9/md. in January (aman).

Even the highest of the monthly average prices, then, was below the "acceptable" level as defined by the Title III standard. However, average prices were not very far from the "acceptable" levels, and certainly were far higher than they would have been in the absence of a vigorous procurement program. Taking into account the tentative

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- a/ The benchmark in question was omitted from the Amendment of June 26, 1961. However, it was in effect for nearly all of the period under review, and since it was not replaced by an alternative standard, may serve as such for these purposes.
- b/ The Food Ministry divides Bangladesh into 66 subdivisions for its administrative purposes.
- c/ The findings, by subdivision, appear in Appendix A, B & C.
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Table 3

Wholesale Paddy Prices in Principal Producing Areas, 1980-81<sup>a/</sup>  
(Taka per Maund)

	Aus			Aman			Boro		
	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	May	June	July (FY 82)
1. Procurement Price	105	105	105	105/110 <sup>b/</sup>	110	110	110	110	110
2. "Acceptable" Wholesale Price	100	100	100	100.5 <sup>c/</sup>	105	105	105	105	105
3. No. of Sub-divisions Surveyed	27	27	27	29	29	29	23	23	23
4. No. of Sub-divisions reporting an average price for the month	27	27	27	25	22	23	22	21	23
5. Sub-divisions reporting price at or above "acceptable" level:									
a. Number	2	6	8	5	2	5	9	3	8
b. Percent	7	22	30	20	7	21	41	14	35
6. Sub-divisions reporting price at or above "alternative benchmark" level- <sup>d/</sup>									
a. Number	3	17	15	7	3	12	13	7	13
b. Percent	11	63	59	28	26	64	59	33	57
7. Ave. price reported by all reporting Sub-divisions	88.1	94.8	96.6	94.5	96.6	101.5	101.2	97.9	101.0

Notes: <sup>a/</sup> Districts covered account for 80-85 percent of total procurement for each crop.  
<sup>b/</sup> Procurement price was changed from Taka 105 to Taka 110 per maund on Nov. 14.  
<sup>c/</sup> 5 Taka below the average procurement price for the month.  
<sup>d/</sup> 10 Taka below the average procurement price for the month.

nature of the Title III benchmark standard itself, it seems appropriate to reevaluate the price support aspect of the program on the basis of an alternative benchmark level, which may be set for these purpose at 10 - rather than 5 - Taka below the procurement price. As shown in line 6, b of Table 3, the percentage of subdivisions meeting this "alternative" - perhaps more realistic - criterion ranges from 11 percent in August (Aus) to 64 percent in January (aman). The August record was far and away the worst, the next lowest reading being 28 percent for both November and December. Table 3a, based on the data in Table 3, summarizes all observations for the various crops, showing the percentage of subdivisions with average wholesale prices above the two benchmark levels:

Percent of Subdivisions with Average <sup>a/</sup>  
Wholesale Prices Exceeding:

	Initially <sup>b/</sup> <u>Acceptable Level</u>	Alternative <sup>c/</sup> <u>Benchmark Level</u>
Aus	20	44
Aman	16	40
Boro	30	50

Note: (a) Average of all observations for all 3 months (i. e. Aug., Sept. & Oct. in the case of aus) in the case of each crop.

(b) 5 Taka below the procurement price.

(c) 10 Taka below the procurement price.

On the alternative benchmark basis, prices were adequately supported in 40 to 50 percent of the reporting subdivisions, depending on the crop. Further, in 4 of the 9 months surveyed the average price in all reporting subdivisions was above the alternative benchmark level. In any event, the record of price maintenance cannot be considered apart from the extraordinary downward pressures on prices and the storage constraint in effect during the period under review.

D. Price Pressures and Storage Constraint

Market prices were depressed throughout FY 81 by the unusual combination of a record foodgrain crop (up 10 percent on FY 80) and

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record, or near-record, foodgrain stock levels.<sup>a/</sup> To offset market pressures and maintain incentive prices to farmers, procurement had to expand by a very large margin indeed. As has been seen, an impressive program was mounted and procurement did indeed nearly triple the FY 80 level. That it did not expand by more is largely due to the shortage of storage space resulting from the same high stock levels that were helping to restrain prices.

Table 4 shows storage capacity, end of month stock levels and the resulting theoretical excess capacity throughout FY 81 and July of FY 82. Not too much should be made of these "theoretical" figures. Apart from the fact that the definition of storage capacity is itself open to interpretation, the BDG could not, for logistical and other "frictional" reasons, be expected to utilize all of its available capacity at all times. Further, a thorough analysis of the effect of the storage constraint on procurement would require more than a look at nationwide data; it would require examination of storage capacity and stock levels in all the main producing regions.

With those caveats, the data on "theoretical excess capacity" are revealing. They provide some idea of the tight storage situation prevailing generally, and the easing of the situation as the year progressed. Quite clearly, the storage constraint was most severe during the aus procurement season, still severe but less so during the aman procurement season, and considerably easier during the boro season.

Given the BDG's proven disinclination to undertake outdoor storage, the storage constraint appears to provide sufficient explanation for the BDG's failure to procure higher levels of aus and aman and for the consequent low (below "acceptable") levels of market prices for those crops. As suggested in Section B. 3 above, the failure to procure more boro is less understandable. The crop was a record high, yet procurement of the FY 81 crop trailed procurement of the FY 80 crop by a substantial margin, prices were not well supported (though somewhat better supported than aus and aman), and the storage constraint had been considerably eased.

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a/ The high stock levels were largely the result of unusually heavy foodgrain imports during FY 80; i. e. during and in the immediate aftermath of the 1979 drought. The wisdom of importing on such a scale can be debated but is not material to the issue addressed here.

Table 4

Excess Storage Capacity By Month, FY 81  
(Thousand of Tons)

	(1)	(2)	(3)	(4)	(5)	
	-- Storage Capacity --			End Mo.	Theoretical	
	<u>Govt.-owned</u>	<u>Hired</u>	<u>Total</u>	<u>Stock</u>	Excess	
				<u>Level</u>	Capacity	
					( 3 - 4 )	
<u>FY 1981</u>						
July	1,159	150	1,309	1,042	267	
August	1,165	155	1,320	1,239	81	Aus
September	1,177	158	1,335	1,310	25	
October	1,178	258	1,429	1,329	100	
November	1,180	265	1,445	1,305	140	Aman
December	1,212	276	1,488	1,301	187	
January	1,223	276	1,499	1,366	133	
February	1,226	339	1,565	1,329	236	Boro
March	1,226	339	1,565	1,240	325	
April	1,331	340	1,671	1,246	425	
May	1,333	350	1,683	1,147	536	Boro
June	1,335	350	1,685	1,219	466	
<u>FY 1982</u>						
July	1,352	350	1,712	1,263	449	

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E. Conclusion

The BDG carried out an unprecedented procurement program in FY 81 in terms not only of the procurement levels alone, but also the improvements made in the procurement system and the strenuous and costly effort to provide adequate storage. While farmgate prices were generally not supported at acceptable levels by Title III standards, the storage constraint seems to provide an adequate explanation, at least in the case of aus and aman.

Appendix Table A

WHOLESALE PRICE OF AUS PADDY IN MAJOR AUS  
PROCUREMENT DISTRICTS DURING FY 1980/81  
(In Taka Per Maund)

<u>District/Sub-division</u>	<u>August 1980</u>	<u>September 1980</u>	<u>October 1980</u>
<u>Dacca</u>	-	-	-
Narayanganj	94.5	98.8	98.0
Manikganj	103.3	103.1	108.3
Narsingdi	91.3	100.3	98.5
<u>Mymensingh</u>	79.0	86.5	84.0
Kishoreganj	79.8	91.0	92.0
Netrokona	87.4	89.0	94.3
<u>Jamalpur</u>	87.0	95.5	98.0
<u>Noakhali</u>	87.8	106.0	98.3
Feni	93.5	101.4	94.3
<u>Sylhet</u>	94.0	96.2	95.8
Moulvibazar	83.2	95.3	83.5
Habiganj	76.8	78.0	91.0
<u>Dinajpur</u>	72.0	89.7	102.5
Thakurgaon	66.3	85.0	96.3
<u>Khulna</u>	92.7	99.8	103.4
Sarkhira	95.0	101.0	94.5
Bagerhat	94.8	95.0	92.0
<u>Jessore</u>	89.3	85.0	90.3
Narail	86.4	98.3	100.5
Jhenaidah	88.4	90.0	102.0
Magura	81.0	97.3	107.3
<u>Kushtia</u>	85.0	96.3	95.0
Chuadanga	83.0	85.3	92.5
Meherpur	94.3	83.8	95.0
<u>Barisal</u>	-	-	-
Jhalakhati	85.0	94.3	90.0
Pirojpur	126.7	103.0	105.8
Bhola	79.2	95.0	103.8

Source: Directorate of Agricultural Marketing

Appendix Table B

WHOLESALE PRICE OF AMAN PADDY IN MAJOR AMAN  
PROCUREMENT DISTRICTS DURING FY 1980/81

(In Taka per Maund)

<u>District/Sub-division</u>	<u>November 1980</u>	<u>December 1980</u>	<u>January 1981</u>
<u>Mymensingh</u>	88.3	89.1	95.0
Kishoreganj	98.3	96.3	98.2
Netrokona	80.0	92.0	98.2
<u>Jamalpur</u>	97.0	102.3	103.5
Sherpur	-	95.6	99.2
<u>Chittagong</u>	-	-	-
<u>Noakhali</u>	92.3	100.8	104.3
Feni	94.5	94.8	104.2
Lakshmipur	-	100.0	103.8
<u>Sylhet</u>	92.5	94.2	101.2
Moulvibazar	-	94.0	95.8
Habiganj	87.5	95.0	96.6
<u>Dinajpur</u>	102.2	100.0	109.3
Thakurgaon	91.0	96.8	103.0
<u>Rangpur</u>	105.0	101.3	106.3
Gaibandha	88.0	93.0	99.4
Kurigram	95.0	99.5	103.0
Nilphamari	103.3	95.5	100.4
<u>Bogra</u>	89.0	95.4	104.6
Joypurhat	86.0	94.0	100.6
<u>Rajshahi</u>	106.8	108.8	111.8
Naogaon	97.2	97.8	108.4
Natore	109.3	99.8	110.3
Nawabganj	103.0	109.2	111.0
Barisal	-	90.0	-
Jhalakathi	93.8	89.0	89.5
Pirojpur	101.1	103.6	104.5
Bhola	90.1	85.8	93.5
<u>Patuakhali</u>	95.0	93.9	95.2
Bargona	92.5	92.7	101.2

Appendix Table C

WHOLESALE PRICE OF BORO PADDY IN MAJOR  
BORO PROCUREMENT DISTRICTS DURING FY 81/82  
(In Taka Per Maund)

<u>District/Sub-division</u>	<u>May 1981</u>	<u>June 1981</u>	<u>July 1981</u>
<u>Dacca</u>	108.3	-	107.2
Narayanganj	110.2	96.0	98.4
Manikganj	115.4	109.1	111.5
Narsingdi	103.8	99.3	105.1
<u>Mymensingh</u>	100.4	95.9	94.9
Kishoreganj	105.8	102.9	112.8
Netrokona	87.3	90.9	88.8
<u>Jamalpur</u>	107.2	100.5	98.0
Sherpur	97.3	95.3	91.0
<u>Chittagong</u>	-	-	111.1
Cox's Bazar	90.6	80.8	87.5
<u>Comilla</u>	108.0	109.3	107.3
Chandpur	105.8	108.0	114.1
Brahmanbaria	103.3	99.1	102.4
<u>Sylhet</u>	96.1	94.4	97.6
Sunamganj	80.6	91.3	100.0
Moulvibazar	108.0	101.7	96.0
Habiganj	98.3	96.4	102.5
<u>Dinajpur</u>	109.4	94.0	88.8
<u>Rajshahi</u>	102.4	98.0	103.0
Naogaon	92.8	89.6	97.9
Natore	99.0	98.3	107.0
Nawabganj	97.5	100.3	100.4

## Procurement Price Considerations - HYV Boro Paddy and Rice

### Introduction

The attached table provides a projection of net income and benefit: cost ratios for owner-cultivator HYV boro farmers, assuming no increase in the procurement price from the present level of Tk. 110/ma, and a fertilizer price increase averaging 21 percent between now and the end of CY 81. The cost projections proceed from the cost of production study of the FY 79 boro crop done with USAID assistance by the Agro-Economic Research Wing of the Ministry of Agriculture. Using data available for the subsequent years and various assumptions with regard to cost trends, FY 79 costs have been projected to the FY 82 boro season.

Yields shown for FY 79 and 80 are national average yields for HYV boro, as reported by BBS. FY 82 yields are projected as slightly better than FY 80, itself a record year. The procurement price is assumed for these purposes as the price received by the farmer. In the real world, of course, most farmers receive a market price that may differ considerably from the procurement price - in FY 79 market prices were much higher, in FY 80 and 81 they were lower - but the procurement price is meaningful as an indication of the extent to which the government supports farm prices and/or provides incentives to invest in HYV technology. It may be mentioned here that FY 79 was a highly abnormal year. Yields were unusually low and market prices high owing to the severe prevailing drought conditions. Data for FY 79 are shown here not only because we have benchmark data for that year. The more meaningful data are those for the period FY 80-82.

### Findings

Costs of production of an HYV boro farmer will have risen by about 25 percent during FY 80-82 when measured on a full-cost basis (i.e. after imputing the cost of family labor and family owned bullocks). The increase on a cash cost basis, which many feel to be the more meaningful measure, will have risen by about 38 percent. The procurement price of paddy meanwhile, has risen by 5 Taka per maund, or 4.5 percent during the same period. The farmer's benefit: cost ratio will have declined from 1.4:1 to 1.1:1 on a full cost basis; from 2.2:1 to 1.7:1 on a cash cost basis. Further, on a full cost basis, his net income per acre will be only 516 Taka per acre.

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... a general rule of a 2:1 benefit: cost ratio should be maintained of 2:1 if farmers are to be motivated to invest in HYV technology. Obviously, the price increase needed to achieve a 2:1 ratio on a mill-cost basis would be prohibitively high from the viewpoint of budgetary and inflation considerations. Attainment of a 2:1 ratio on a cash cost basis would require a paddy procurement price of Tk. 130/md. The required rice equivalent procurement price would then have to rise from the present Tk. 170/md. to Tk. 210/md. To be effective in influencing farmers' planting intentions, a procurement price increase should be announced by Dec. 1.

Other considerations

While a higher price is clearly needed to provide appropriate incentives forboro farmers, objections are heard to the effect that:

- (1) The budgetary situation does not permit an increase at this time;
- (2) An increase would add to the general inflationary trend and tend to put rice out of reach of the poorest groups;
- (3) Given the likelihood of much lower market prices, a sizeable increase in the procurement price would not have the desired effect; middlemen would get most of the increase;
- (4) To announce an increase on Dec. 1 would disrupt the aman procurement program. Speculators would buy aman rice at the lower aman procurement price and hold it for later delivery to boro procurement centers.

In answer to these points:

(1) A 10 to 20 Taka increase in the boro procurement price might cost the BDC 50 to 100 million Taka (based on procurement of about 200,000 tons). This is not a terribly significant sum when viewed in the context of the overall budgetary situation. If it is then argued that the increased price would have to prevail for next year's aman and aman crops, the answer surely is that procurement prices will have to be higher for those crops anyway. In any case, the cost of procurement price increases can (indeed should) be offset by increases in foreign-rain prices.

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(b) Prices will be somewhat higher for the consumer, but the government's imperative must take precedence in this situation.

(c) The higher procurement price may not be entirely effective, especially in raising the level of procurement; it would have to have some effect on crop and average prices.

(d) The disruptive effect on grain procurement can be minimized by stipulating that only core rice is entitled to the higher price. To the extent that this stipulation is not effective, no great harm would be done. If traders lift grain prices for speculative purposes, the effect will be to raise grain market prices which are overdue for an increase anyway.

Finally, it may be mentioned that it is in the Food Ministry's main interest to maximize core procurement. It may well be that a higher procurement price will be necessary to achieve a significant level of core procurement, especially if drought conditions persist.

Conclusion

The Government feels that to provide the appropriate production incentives, the procurement prices of core paddy and rice should be raised to Tk. 1.00 and Tk. 2.00 per maund, respectively, exclusive of the usual Tk. .50 per maund transportation bonus. Announcement of the price changes should be made by Dec. 1 to take effect Feb. 1, 1961.

CSAID/English  
Nov. 10, 1961