PD-ABM-947
90626

Project Assistance Completion Report (PACR)

USAID/Bangladesh

Fertilizer Distribution Improvement (FDI) II Project

Project No. : 388-0060

A

APPENDIX A: USAID/Bangladesh
Project Assistance Completion Report (PACR)

I. SUMMARY DATA SHEET:

Project Title: Fertilizer Distribution Improvement (FDI) II Project

Project Number: 388-0060

1. Authorization Date: August 2, 1984

2. ProAg No.: 388-0060 Date: August 30, 1984
   Number of ProAg Amendments: 10

3. Grantee: Government of Bangladesh

4. Implementing Agency: Ministry of Agriculture (MOA)

5. Technical Assistance Contractor (s): International Fertilizer Development Center (IFDC)

   Amount (s): $18,495,149

6. Final Evaluation Date: There was no final FDI-II evaluation following PACD, due to the planned design of a fertilizer component in the ATDP.

7. PACD: Original: 09/30/1989 Final: 08/29/94

8. Financing Status (through PACD):

A. Authorized:	$77,000,000
B. Obligated:	$56,316,536
C. Disbursed:	$55,716,361
D. Unliquidated:	$ 600,175
E. Deobligated:	$ 8,319,214*

*$2,557,075 was deobligated in 1992, $5,162,139 in 1994 and $600,000 in 1995

9. BDG Contribution:

A.	Planned:	$600,000,000
B.	Actual:	$943,930,000

10. Other (including Donors) Contributions:

A.	Planned:	-
B.	Actual:	-

11. Planned USAID Inputs:

A. Training	$ 950,000
B. Technical Assistance, etc	$18,528,440

Actual USAID Inputs:

A. Training	$ 767,479
B. Technical Assistance, etc	$17,834,000

12. Planned Outputs:

i. Assured fertilizer supplies.
(8 percent compound annual growth)

ii. A wholesaler and retailer credit program exclusively for fertilizer purchases.

iii. Competing large scale and middle size fertilizer wholesalers.

iv. Increase efficiency in fertilizer distribution and marketing.

v. Active fertilizer dealer development and sales promotion programs.

vi. Improved access to fertilizer sales outlets.

Actual Outputs:

i. The supply of fertilizers increased from 12.08 to 22.92 MT (annual 8 percent growth target achieved). Availability of fertilizer to rural Bangladeshi farmers within 5 km. distance increased from 41% in 1986 to about 80% in 1994. Domestic stock of a 5 month inventory of potash and phosphate and a 3 month inventory of urea was typically on hand.

ii. Fertilizer bank credit was initiated with a credit program, and institutionalized when banks' own funds financed nearly all fertilizer loans (more than $200 million per year).

iii. Approximately 14,000 wholesalers purchasing from depots, ports and factories, linking sales to farmers through 108,000 retailers. Wholesalers and retailers employed about 60,000 additional persons.

iv. Fertilizer distribution margins (difference between ex-factory and retail prices) shrank by more than half; real prices to farmers declined.

v. A total of 9,122 dealers in 238 programs received training on fertilizer dealer development and sales promotion. Bank and factory staff also participated.

vi. One access road was improved. Factories improved their truck loading facilities.

13. Checklist:

A. All contract/assistance close-out activities will be completed separately.

B. All financial close-out activities will be completed separately.

C. Official project files have been checked for completeness and organization; those no longer required for implementation, evaluation and/or monitoring have been retired to storage:

PO: _____ Date: 6/13/96

14. Drafted by: ~~HRahman~~: LPaulson/OFA Date: 10/24/94
Revised: 8/28/95; 3/15/96; 4/15/96

15. Clearances:

A.	OFA: Draft	Date: 8/23/95	OFA:	Draft	Date: 12/24
	OFA: Draft	Date: 12/24	B. CO:	N/A	Date:_____
C.	PRO: Draft	Date: 3/14/96	D. RLA:	Draft	Date: 5/14/96
E.	PDE: Draft	Date:__x__	F. CONT:	Draft	Date: 5/19
G.	DDIR:Draft	Date:5/21/96			

16. Approved: _____ Date: 6/13/96
Name: Richard M. Brown, Mission Director

17. Distribution:

Project File
Mission Director and All Clearing Offices
USAID/W: PPC/CDIE; ANE/SA/B; ANE/SEA/IRM
RIG /A, Singapore

II. TABLE OF CONTENTS

		Page
1.	Summary Data Sheet	1
2.	List of Acronyms	5
3.	Executive Summary	7
4.	Project Purpose/Description	8
5.	End of Progress Status:	9
a.	Current project status, including status of completion of various project elements (e.g., procurement, construction, technical assistance, training)	9
b	Progress toward achievement of project purpose	11
6.	Accomplishments Versus Planned Outputs: Project accomplishments todate, including conditions at the outset and changes in the project environment and/or design during implementation	12
7.	Non-U.S. Contributions (BDG/Donors/Participants)	16
8.	Sustainability/Post Project Monitoring:	17
a.	Statement of borrower/grantee continuing, responsibilities-monitoring and initiatives to further project goals	17
b.	Description of continuing and/or post-project USAID/B monitoring responsibilities, including timing and resources	18
8.	Lessons Learned:	18
a.	Assessment of the appropriateness of unmet conditions and covenants and grantee reporting requirements	18
b.	Description and assessment of previous and planned evaluations	19
c.	Summary of lessons learned from the project that might be relevant to programming, design and implementation of other activities	19
9.	Conclusions and Recommendations	20

List of Acronyms

ADB	Asian Development Bank
ALIGU	American Language Institute of Georgetown University
ASP	Ammonium Sulphate
ATDP	Agrobased-Industries and Technology Development Project
BADC	Bangladesh Agricultural Development Corporation
BCIC	Bangladesh Chemical Industries Corporation
BDG	Bangladesh Government
BFA	Bangladesh Fertilizer Association
CCP	Commercial Credit Program
CCPF	Commercial Credit Program Fund
CDST	Customs Duty and Sales Tax
CIDA	Canadian International Development Association
C&F	Cost and Freight
CIF	Cost, Insurance, Freight
COP	Chief of Party
CP	Conditions Precedence
CTSPC	Chittagong Triple Super Phosphate Complex
CUFL	Chittagong Urea Fertilizer Limited
DAE	Department of Agricultural Extension
DANIDA	Danish International Development Agency
DAP	Di-ammonium Phosphate
DD	Demand Draft
DD&T	Dealer Development and Training
DGIS	Director General International Cooperation (The Netherlands)
FDI	Fertilized Development Improvement
FLFUS	Farm-Level Fertilizer Use Survey
FY	Fiscal Year
GDP	Gross Domestic Product
GKF	Grameen Krishi Foundation
Govt	Government
HA	Hectare
HCN	Host Country Nationals
HYV	High Yielding Variety
IFDC	International fertilizer Development Center
ILC	Inland Letter of credit
JFCL	Jamuna Fertilizer Company Limited
LOP	Life of project
MEC	Monitoring, Evaluation and Computer
MIS	Management Information System
MOA	Ministry of Agriculture
MOF	Ministry of Finance
MOI	Ministry of industry
MP	Muriate of Potash

MRP	Maximum Retail Price
MT	Metric Ton
NGFF	Natural Gas Fertilizer Factory
NGO	Non-Government Organization
PACD	Project Assistance Completion Date
PB	Participating Bank
PDP	Primary Distribution Point
PM&E	Planning, Monitoring and Evaluation
PO	Pay Order
PUFF	Polash Urea Fertilizer Factory
SSP	Single Super Phosphate
TA	Technical Assistance
TCCA	Thana Central Cooperative Association
TDP	Transportation Discount Point
TSP	Triple Superphosphate
TVA	Tennessee Valley Authority
UDP	Urea Deep Placement
UFFL	Urea Fertilizer Factory limited
USAID	United States Agency for International Development
USG	Urea Super Granule
ZFCL	Zia Fertilizer Company Limited

III. EXECUTIVE SUMMARY:

The Agriculture Sector

About 80% of the population of Bangladesh lives in rural areas and most derive a livelihood from agricultural work. The contribution of agriculture to the GDP was about 38% in 1992-1993. Crop production, mainly rice and wheat, accounts for about 80% of the annual value of agricultural production. A skewed distribution of land is evident in that about 11% of the rural households own 52% of the total cultivable land and 33% are landless.

Agriculture production in Bangladesh is adversely affected by (i) limited land resources, (2) low productivity due to traditional subsistence agriculture, and (3) climatic forces. BDG set strategies to stimulate agricultural production by assuring adequate and timely availability of irrigation, fertilizer and improved seed. The fact that chemical fertilizers contribute substantially to food and agricultural production has been increasingly recognized and understood. The improvement in the distribution and use of fertilizer is essential for agricultural growth and development in Bangladesh.

Fertilizer Marketing

The use of chemical fertilizer was introduced in Bangladesh in the early 1950's. Until 1978, a public sector entity, BADC, was solely responsible for all procurement, transportation, storage, and distribution of subsidized fertilizers. Erratic and inadequate domestic fertilizer production, limited storage capacity, serious budget problems due to fertilizer subsidies, inefficient handling of fertilizer imports, and foreign exchange limitations impeded the marketing of fertilizers.

Starting in 1974, USAID addressed constraints of fertilizer sector through six development projects. Between 1978 and 1983, the FDI-I was one of the pioneer projects that contributed to the development of a new marketing system to increase agricultural production by increasing fertilizer use. Technical assistance through FDI-I brought major policy changes, such as (1) withdrawal of BADC from selling fertilizers in thana but from PDPs, (2) transfer of fertilizer transportation below PDP's to private wholesalers, (3) removal of restrictions on fertilizer trading, and (4) decontrolling retail prices. This FDI-I reforms created a competitive group of private wholesalers and dealers and resulted in a marked improvement in fertilizer availability at competitive retail prices.

The Need for FDI-II

FDI-I enabled the transfer of downstream fertilizer marketing to the private sector, but some tasks were incomplete. Continued technical assistance was necessary to fulfill the development objectives of the BDG to establish an efficient fertilizer program based on the full participation of a competitive private sector. The availability of fertilizers at reasonable prices, technical knowledge regarding fertilizer use, and the availability of working capital were identified as factors that constrained fertilizer use in Bangladesh. The FDI-II project was designed to mitigate these constraints and increase fertilizer use for increased crop production.

IV. PROJECT DESCRIPTION/PURPOSE

The goal of the fertilizer distribution improvement II (FDI-II) project is to increase agricultural production by increasing fertilizer consumption through more responsive and cost-effective distribution of fertilizers while simultaneously continuing assurance of adequate supplies of fertilizers nationwide. FDI-II will continue the process of developing private sector involvement in the distribution of fertilizers which began in 1978 with the introduction of the New Marketing System (NMS under FDI-I). FDI-II will carry the initiatives of the NMS one step further by developing large scale private wholesalers (distributors) with a potential for nation-wide distribution and sales of fertilizer. The $65 million of project funds to be obligated over five years will be used for the following: (1) a fertilizer wholesaler and retailer credit program and/or fertilizer imports, (2) technical assistance and training, and (3) infrastructural improvements to ease physical constraints in the distribution network of fertilizer wholesalers.

Under this project, the Bangladesh Agricultural Development Corporation (BADC) will continue to have a significant role in the fertilizer business since BADC will be expected to: procure imported fertilizers; maintain the nation's fertilizer buffer stock; operate a revised network of primary distribution points (PDPs) and depots; effect a price ceiling at the PDP level; insure fertilizer availability at the PDP level; promote fertilizer sales through its dealer training and development program; and lease out unused fertilizer warehouses.

A necessary first step under FDI-II will be for the Government to offer to wholesalers large lots of fertilizers at wholesale discount prices from Government sales outlets located at the Chittagong, Khulna, Narayanganj, Bhairab, and Chandpur depots. Private fertilizer wholesalers will be permitted under Bangladesh Government law and regulations to make minimum purchases of 150 metric tons of fertilizers at a discount of at least 3.5 percent below BADC's ex-PDP prices. These prices were 4,390 Tk/MT for urea and DAP, 4,144 TK/MT for TSP and 3,192 Tk/MT for MP in January, 1985. The Chittagong and Khulna depots will offer this discount only for imported fertilizers. The Narayanganj, Bhairab, and Chandpur depots will offer the discount only for domestically produced urea. At these depots, BADC will maintain adequate stock levels of the discounted fertilizers and will appropriately staff and manage the depots in order to effectively support the anticipated increased sales at these designated locations. Wholesalers will be allowed to sell their fertilizers anywhere in the country.

During project implementation the operations of private fertilizer wholesalers will receive continuous monitoring. Decisions to proceed with subsequent phases of the project will be dependent upon successful resolution of any problems encountered during earlier phases. Following 12 months of successful quantity purchases at depots, the second phase of the project will begin. BCIC factories will begin selling fertilizers directly to private wholesalers. Subject to final decision at that time, these factory purchases will be in 500 metric ton lots and will be offered at a discount of 7 percent below BADC's ex-PDP prices. After twenty months of operation, a formal project evaluation will be conducted. If by this evaluation the reformed marketing system is found to be working as expected, the third phase of the project will begin. Subject to final decisions at that time, the discount at the factories will be increased from 7 to 12.5 percent of the ex-PDP prices and private fertilizer wholesalers will be permitted to lift fertilizers from ports. These port purchases of 500 metric tons lots will also be discounted 12.5

percent below BADC's ex-PDP prices.

During the life of FDI-II, fertilizer retailers and wholesalers of all sizes will need short-term commercial credit. A major portion of FDI-II funds are, therefore, designated to be allocated to the Bangladesh Bank for use as refinance funds. The provision of FDI-II's funding will serve to expand trade credit availabilities exclusively for fertilizer. A special refinance program will be developed to operate in a manner similar to the refinance mechanism for agricultural credit. The national commercial banks (NCBs), and the Bangladesh Krishi Bank (BKB) will be authorized to rediscount loans made to retailers and wholesalers for the purchase of fertilizer. The interest rate charged to the borrowers will be set at levels similar to those for agricultural credit (currently 13% plus a 3% service charge). Loan terms, minimum collateral and margin requirements, etc., for these loans will be specified by the Bangladesh Bank. Periodically the NCBs and BKB will apply to the Bangladesh Bank for rediscount of loans made. A sliding scale formula will be used to determine the interest rate charged for refinance. Currently, the charge for refinance of agricultural loans is a minimum of 6% when 50% or less refinance funds are obtained up to a maximum of 10.5% for 100% refinance. If the need arises, FDI-II funds may be transferred from credit to fertilizer imports.

The formal evaluation of the national fertilizer distribution system to be conducted near the end of the second year of the project is expected to identify constraints on the operations of distributors and, if necessary, to recommend system adjustments that will allow these wholesalers to operate competitively nationwide. Following this evaluation, the Government may choose to introduce non-uniform pricing throughout BADC's PDP network. This system would permit competition on an equal basis in fertilizer distribution between BADC and the private fertilizer distributors. Under this system, both BADC and the private distributors could lift fertilizers from factories and ports (depots would revert to PDPs) at the same pooled lifting price, and both could be expected to fully cover their costs from their sales revenue.

Throughout the life of FDI-II, a technical assistance team composed of 3 resident consultants will be provided to the Ministry of Agriculture to help monitor and implement the reformed national fertilizer distribution system and related FDI-II components, especially the credit and dealer development programs. The goods and services provided by this team will include advisory services, training, and equipment, all financed with FDI-II funds.

V. END OF PROGRESS STATUS

a. Current project status, including status of completion of various project elements (e.g., procurement, construction, technical assistance, training):

The Fertilizer Distribution Improvement (FDI) II Project was implemented over a seven year period from 1987-1994 (PACD 08/29/94). These past seven years have presented great challenges to the Government of Bangladesh in the transition to a private fertilizer sector. An amount of $56,316,536 was obligated of which $ 55,716,361 was disbursed, for the following line items:

Line Items	Amount Disbursed
Commercial Credit	$15,000,000
In-kind Credit	926,675
Private Sector Fertilizer Import	20,032,367
Infrastructure & Commodities/Construction/A&E Services	988,634
Technical Assistance	17,924,028
Training and Studies	767,479
Evaluation and Audits	77,178
Total:	$55,716,361

The successes of FDI-II are:

During the period 1987-94 when Bangladesh Government (BDG) liberalization and privatization policies were in effect, fertilizer use has increased at a compound growth rate of 8% per year. The market structure has undergone a radical transformation. At PACD, the private sector was responsible for virtually 100% of both fertilizer imports and domestic marketing and fertilizer is available at competitive prices throughout Bangladesh. The intensity of fertilizer use per hectare has increased from 67 kg of nutrient in 1987 to 113 kg in 1994. Paddy yields during this period increased by 29% (1.4 MT to 1.8 MT per hectare). At PACD, fertilizer was available throughout the country to all farmers. Most farmers (about 80%) were able to purchase fertilizer within 5 kilometers of their farm. At PACD (1994 compared to 1987), fertilizer prices to farmers in real terms decreased by 30% despite a complete withdrawal of BDG fertilizer subsidies. Between 1987 and 1994 the percentage of farmers who complained of lack of funds as a constraint to purchasing fertilizer has declined from 23% to 1%. The number of farmers using fertilizer has increased from 74% of total farmers in 1987 to about 86% in 1994. The removal of fertilizer subsidies and enabling private sector imports and marketing of fertilizer have saved the government about Tk.160 crore (US$40 million) per year in subsidies and handling costs.

The project ended on August 29, 1994. Project assets were handed over to the Ministry of Agriculture (MOA). These were transferred to Agrobased Industries and Technology Development Project (ATDP) at ATDP startup in May 1995.

There were 10,841 person months of Host Country Nationals (HCN), 254 person months of long-term and 75 person months of short-term expatriate consultants involved in the successful implementation of FDI-II. The four components of policy reform, credit, dealer development and technology transfer, and the Management Information System (MIS) were implemented under the supervision of expatriate consultants supported by a number of HCN specialists and other support staff.

A total of 238 in-country training programs were conducted under FDI-II and 11,022 participants were trained. In addition, there were 33 overseas training, seminars and study tours organized and a total of 193 participants participated.

Entities	In-country	Overseas
Distributors/importers	9,122	48
Bankers	671	69
MOA	8	26
BCIC	114	16
BADC	327	14
DAE	128	-
TCCA	113	-
MOF	10	-
Other ministries/Govt. agencies	44	4
GKF	273	-
NGO	30	-
Chamber of Commerce	6	-
Farmers	58	-
Others	118	16
Total	**11,022**	**193**

All commodity procurement was completed before the PACD of August 29, 1994. These were handed over to the MOA before PACD.

FDI-II identified required infrastructure development for better factory access and loading facilities for barges and rail wagons, bulk delivery systems, improved handling at ports for imported fertilizer and low cost storage by private distributors. Several project recommendations made for road improvement were subsequently implemented by the concerned authorities. FDI-II directed its efforts towards construction of approach roads to factories. The changes took place and immediately benefitted fertilizer distribution. FDI-II project funds were utilized for the construction of a four kilometer road linking the Urea Fertilizer Factory Ltd., Ashugung to a highway and rail depot.

b. Progress toward achievement of project purpose:

The project purpose, as stated in the project paper, was "to increase agricultural production by increasing fertilizer consumption through more responsive and cost-effective distribution of fertilizer while simultaneously continuing assurance of adequate supplies of fertilizers nationwide". The fertilizer nutrient consumption per hectare in Bangladesh which was 67 kg in 1987, increased to 113 kg in 1994. Technical knowledge regarding efficient fertilizer use increased farmers' knowledge of balanced fertilizer ratios, although price distortions near project's end led to at least short-term imbalances. FDI-II project helped increase average paddy yields from 1.4 MT to 1.8 MT per hectare between 1987 and 1994, an increase of about 30%, and provided additional work and wages for men in field labor and women in post

harvest activities. The incremental food grain production of 3 million MT between this period provided food for 12 million people. About 80% of farmers purchasing fertilizer are small and marginal farmers. FDI-II enabled the cost-effective distribution of fertilizer through private entrepreneurs. This assured adequate supplies of fertilizers to farmers through the retail network which was estimated to be about 170,000 outlets across the nation.

FDI-II's achievements in deregulation and the establishment and institutionalization of a privately operated fertilizer distribution system have been widely recognized and a relatively free market existed in Bangladesh at PACD. In addition, fertilizer credit through commercial banks was adequately available at PACD.

VI. ACCOMPLISHMENTS VERSUS PLANNED OUTPUTS

Project accomplishments to date, including conditions at the outset and changes in the project environment and/or design during implementation.

The FDI-II project began in March 1987, following satisfaction of Conditions Precedent. The FDI-II staff, in collaboration with Bangladesh Agricultural Development Corporation (BADC), Ministry of Agriculture (MOA), and United States Agency for International Development (USAID) implemented and coordinated the project. The efforts of FDI-II concentrated on the following four major project components:

I. Policy reform
II. Commercial credit program
III. Dealer development and technology transfer and
IV. Management information system

I. Policy Reform

The FDI-II project achieved remarkable success in fostering policy reform. Project technical assistance prepared recommendations, based on which the BDG implemented the following policies:

* direct procurement of urea from factories by private distributors
* closed Primary Distribution Points (PDPs) and TDPs (Transportation Discount Points):local and regional centers
* discontinuation of public sector fertilizer distribution. Before direct access, traders depended on a grossly inefficient, costly and (most importantly) time-and-market-insensitive parastatal distribution system. The PDPs and TDPs were intermediate stages between parastatal distribution to localities to direct factory access. Parastatal distribution ceased, not by order, but from inability to compete with the private sector.

* eliminated subsidies on Triple Super Phosphate (TSP) and Muriate of Potash (MP) as high as 60% of market value. Market efficiencies in a privatized distribution system enabled the BDG to withdraw subsidies with only minor effect on farm-level prices. Unfortunately, urea fertilizer (produced in Bangladesh) is administratively priced, and as regional and

world-wide fertilizer prices fluctuate upward, this price effectively subsidizes urea. This creates, at times, serious fertilizer balance distortions (agronomic irrationality).

* direct import of fertilizers by private importers. In 1991, two years after direct factory purchases by private traders were authorized, the fertilizer importation monopoly of BADC was ended; BADC could still import and so could private traders. Donor organizations chose to deal with traders; by the end of 1992 the government announced that BADC would no longer import fertilizers.

With traders paying the full cost of imports, donor organization financing of fertilizer imports were no longer attractive to buyers, and since 1993 no donor-financed imports have been made. Importers sought and found lower-cost sources. The implication for USAID's FDI-II planned expenditures was that approximately $7 million obligated for fertilizer imports was not spent.

II. Commercial Credit Program

A Commercial Credit Program (CCP), designed for fertilizer distributors at all levels, and eventually importers as well, was introduced through FDI-II. The CCP improved the access of distributors to funds through the banking system for building inventories and permitting/encouraging pass-through credit to dealers and retailers, and ultimately farmers. The CCP also increased the ability of distributors and dealers to initiate technology transfer activities.

Commercial credit was determined to be essential to finance production, distribution and marketing functions, particularly in new, high risk areas. Technical assistance and training promoted bank lending for fertilizer trading, enabled bankers to manage loans, and (through assisting portfolio management) instilled confidence in this new lending area. At least three programs were instituted during the transition period:

a. During the early stages of developing private sector dealers, an in-kind credit program managed by BADC was funded by USAID. With the rapid transition of the domestic fertilizer market from the public to the private sector, demand for in-kind credit quickly disappeared and the fund was converted to a Commercial Credit Program (CCP).

b. The CCP started in June 1989. By 1993 13 private banks (about one half of Bangladesh's commercial banks) were extending credit to the fertilizer sector through the CCP. The number of bank branches involved in lending increased from 165 to 395 between 1989-1990 and 1993-1994. The participating banks by 1994 were largely using their own funds for loans.

   The fact that the banks used their own funds for most loans for fertilizers is clear evidence that the banks consider the private fertilizer sector viable and profitable. This is a key to institutionalization of credit in the commercial banking system. An estimate of Bangladesh Bank shows that the total fertilizer loans overdue in mid 1994 were Tk.362 million, a delinquency rate of about 24%. Although any delinquency rate is undesirable, the fertilizer loan repayment rates of the banks are much higher than loans to other sectors of the economy.

c. A new means of lending developed by the project, the Inland Letter of Credit (ILC), enabled fertilizer distributors to make payments to fertilizer factories through banks. This financial instrument was accepted enthusiastically by the distributors because it involved lower bank charges, alleviated risks in arranging cash payments, and did not block funds of distributors with the Bangladesh Chemical Industries Corporation (BCIC) for prolonged periods.

III. Dealer Development and Technology Transfer

Dealer development and technology transfer focused on the following:

* improved fertilizer use management
* crop production technology
* fertilizer marketing management for dealers
* improved fertilizer import management
* human resource development to facilitate policy reform, credit system development & improved efficiency in fertilizer marketing

The major tools used for dissemination of technologies were:

* field days, fertilizer rate trials, demonstrations and one-and-two day training programs organized through BADC, Department of Agricultural Extension (DAE), Non-Government Organizations (NGOs), and private businesses
* technical brochures, leaflets, and other promotional materials
* direct technical assistance
* seminars and workshops
* study tours

IV. Management Information System

The FDI-II MIS was instrumental in:

* increasing transparency in fertilizer marketing; and
* providing policy makers and others with improved and timely information as a basis for sound policy making.

Data was collected on a broad range of topics including:

* price and market data
* the institutional and economic aspects of fertilizer distribution
* the determinants of fertilizer use
* current knowledge and practices concerning fertilizer use
* the profitability for fertilizer use under different circumstances

A description of the impact of the FDI-II MIS can be found below.

V. Project Modifications and Impact

The original Project Agreement's "Project Assistance Completion Date" (PACD) was September 30, 1989 with the Technical Assistance component authorized at $14 million. There were ten amendments to the ProAg through the PACD: (i) seven amendments for incremental funding; (ii) one for PACD extension with additional funding for TA; (iii) one for changing the conditions precedent to disbursement and special covenants and for changing the amplified project description; and (iv) one for decreasing the funding level from $62,078,675 to $56,916,536.

The Mission Director approved the first PACD extension up to September 30, 1991 and increased the TA budget ceiling by US$3.5 million. The second PACD extension was approved by the Acting Assistant Administrator for Asia, Near East and Europe (NEA) to August 29, 1994 (3 additional years) with no increase in estimated project cost to provide time to institutionalize major policy reforms already undertaken by the Bangladesh Government in the fertilizer area.

The project was highly successful in achieving the following impacts:

* Increased fertilizer use. This has been a key to Bangladeshi success in reaching rice self-sufficiency

* Creation of a new class of entrepreneurs to handle the storing, moving, bagging, and the buying and selling of fertilizers
* the monopoly parastatal (BADC), employing about 6,000 persons, was supplanted by over 1,000 new private firms employing some 160,000 persons
* number of retailers increased from 6,000 to 108,000
* some retailers' businesses grew into distributorship
* many fertilizer distributors became fertilizer importers following the 1991 opening of imports to private traders
* Private traders (businesses) are managing the importation of all fertilizer at full cost
* About 50% of commercial banks were active, at PACD, in extending fertilizer credit
* Loan sanctioned by banks increased from Tk.342 mill to Tk.2,061 mill between 89/94
* About 11,000 persons were trained in fertilizer use, technology and marketing
* The availability of fertilizer increased in all parts of Bangladesh and to poorer farmers.
* Fertilizer prices were more stable at PACD than at project's onset.
* Hybrid maize cultivation, which is heavily dependent on fertilizer availability, was successfully introduced in Bangladesh
* Private firms began to organize and finance training programs for dealers and farmers

The FDI-II MIS was instrumental in creating a competitive, market-oriented private sector by supplying, for the first time in Bangladesh, timely and credible market (supply and price) data and analysis. Anti-competitive behavior was greatly constrained by the wide availability of project information which included marketing opportunities. Also, policy discussions were greatly aided and advanced by this same timeliness and credibility. Project-generated information was highly esteemed as being consistently the most up-to-date, most accurate and most comprehensive.

FDI-II was a relatively large part of the USAID/Bangladesh portfolio and had high visibility in and outside Bangladesh. FDI-II became a model for the marketing and distribution of fertilizer through private entrepreneurs. Its success extended beyond Bangladesh, and has been studied by countries so diverse as Nigeria, Kenya, Egypt and Albania. It became a showpiece for USAID's investment in the policy reforms involving privatization which, in Bangladesh, created a highly competitive group of private wholesalers and dealers and resulted in a marked improvement in fertilizer availability. In addition, former FDI-II staff have been employed as consultants in Albania and Indonesia.

VII. NON-U.S. CONTRIBUTION (BDG/DONORS/PARTICIPANTS)

($000s or Equivalent Through 08/29/94)

BDG-Financed Inputs

Project Element	Planned Inputs	Actual Inputs
1. Credit Program or Fertilizer Imports	598,900	943,580
2. Construction and A&E Services /Infrastructure and Commodities	900	350
3. Technical Assistance	50	-
4. Training, Equipment, Survey & Evaluation	100	-
5. Contingencies	-	-
6. Training and Studies	-	-
7. Evaluation and Audits	50	-
TOTAL:	600,000	943,930

Note: Expenditure excess in #1 was due to participation of financial institutions (banks) to provide working capital for private fertilizer traders. BDG TA expenditure was not spent as there was no such requirement during implementation from BDG. Expenditure for items 4 & 7 were not spent, these funds were spent from AID contribution. BDG compensated for land purchase for expansion of 1 km Ghorashal road which linked the factory gate.

VIII. SUSTAINABILITY/POST PROJECT MONITORING

a. Statement of borrower/grantee continuing responsibilities - monitoring and initiatives to further project goals. How will project benefits continue after USAID funding stops? Identify local capacities, resources and leadership to ensure that appropriate "benefit streams" continue. Are the effects of the project likely to have sustainable development impacts.

The existence of an efficient planning and monitoring function is fundamental to ensuring the sustainability of progress. The FDI-II Project provided MOA with fertilizer sector information, including effects of policy changes, which resulted in the establishment of a dynamic private sector fertilizer marketing network. Policies and programs set in place under FDI-II have brought rapid growth in agriculture. MOA has a limited cadre of trained and experienced personnel to monitor policies and programs established through FDI-II. MOA now intends to establish its own monitoring cell, initially focused only on fertilizer.

This MOA intention had no immediacy at the end of FDI-II, because the planned life-of-project for the following ATDP seemed to afford a long gestation period for MOA. The fertilizer crisis that occurred during the hiatus between projects, when the MOA was without its accustomed "eyes and ears," provided strong stimulus to MOA and to the highest level of Government to re-create in MOA the kind and quality of market information and analysis that had been provided by FDI-II.

Early in the implementation phase of FDI-II, there was a mutual and explicit USAID/IFDC view that the initial market information enterprise could work only outside the Ministry of Agriculture; that presenting the MOA (and others in the BDG) with the most, best and soonest market information was the best strategy to effect complete and functional privatization of fertilizer distribution. It was considered that non-project market monitoring, in government or as a commercial or association activity, or both, would appropriately follow the institutionalization of the market itself. This consideration followed, in part, the concern about so many potential "saboteurs" of privatization still active in the Ministry of Agriculture and elsewhere in government, and in part the judgement that the best argument for the merits of a private distribution system was a functioning system itself.

Skills developed within the BDG have strengthened and can articulate future programs and policies built on the achievements of FDI-II. Through present and planned monitoring activities, especially through MOA's planned Monitoring Cell, it is likely that BDG will be able to ensure that achievements are sustained. It was said in the close-out seminar held just before PACD that these FDI-II reforms are institutionalized: (i) the credit system and (ii) private sector marketing. The BDG is, however, keen to continue to pursue the goals of the fertilizer program by broadening its scope through the ATDP which will ensure all of the important past investments will continue to benefit the Bangladesh farming community and the nation.

A development of great importance in the last year of FDI-II and in the immediately following period was the formation of a fertilizer trader association, the Bangladesh Fertilizer Association (BFA). While not designed into FDI-II, a role for an association as a representative of business

interests in policy discussions with the government developed as a consequence of project success in goal and purpose achievement. FDI-II TA assisted the formation of the BFA; continued assistance was projected under USAID's following agribusiness project (Agro-Based Industries and Technology Development Project - ATDP). ATDP was planned to overlap with FDI-II, but unfortunate delays in project design and approval led to an eight month hiatus. During this period, the BFA had a number of high level discussions with government on fertilizer trade issues which have been effective in restoring most of the reforms threatened by government anti-market forces. The BFA is in process of establishing its own market information service, probably in collaboration with the MOA's market monitoring cell. Additionally, a second group, a private firm called Rainbow Associates, headed by a former FDI-II project employee, has taken a very active role in educating the press on the benefits of privatization and the dangers of moving away from it.

b. Description of continuing and/or post-project USAID/B monitoring responsibilities, including timing and resources

After the FDI-II PACD, USAID/Bangladesh planned to continue monitoring through its agribusiness project (ATDP). Occasional discussions with government and fertilizer trade groups by USAID/ Bangladesh personnel were made to help monitor and resolve the remaining issues under the FDI-II project recommended by IFDC in its final report:

1. Resisting a maximum retail price (MRP) of fertilizers;
2. Resisting the establishing of a public sector fertilizer buffer stock;
3. Non-use of donor funds for importing fertilizer;
4. The Fertilizer Control Order;
5. Strengthening the Bangladesh Fertilizer Association;
6. Market Intelligence; and establishing a market monitoring capability in either or both MOA and BFA.

FDI-II has helped develop close relationships among DAE, agricultural research institutes and fertilizer dealers mainly through training programs and fertilizer demonstrations all over Bangladesh. These relationships developed better knowledge and delivery mechanisms for fertilizer use on different crops.

IX. LESSONS LEARNED

a. Assessment of the appropriateness of unmet conditions and covenants and grantee reporting requirements

MOA carried out activities in accordance with the implementation plan and project design. The technical, socio-economic, and environmental analyses of this project in project design were not affected or changed during implementation through PACD.

There was no requirement needed for final adjustments in project design before the PACD. The CPs and covenants were met. The reporting requirements for the Grantee was to furnish A.I.D. information and reports relating to the Project and these were met.

b. Description and assessment of previous and planned evaluations:

The Midterm Evaluation of FDI-II was conducted by Chemonics International between September 22 and October 22, 1992. The FDI-II Project Review Committee approved the Evaluation Report as described below. There was no final FDI-II evaluation following PACD, due to the planned design of a fertilizer component in the ATDP.

c. Summary of lessons learned from the project that might be relevant to programming, design and implementation of other activities

The Evaluation's "Lessons Learned" are:

Policy reform via deregulation, permitting competition, allows businesses to bypass the financial difficulties associated with privatization, e.g., finding a private enterprise willing to takeover the excess staff and unadapted facilities of a state corporation. Even when competition leads to greater overall employment in a sector, however, unemployment or inactivity among redundant personnel can remain a potent issue.

The long term commitment, by both USAID and the contractor, has been essential to achievement of project goal and purpose. Significant reforms began occurring in year eleven of the fertilizer program (year three of FDI-II).

Combining policy reforms with fostering entrepreneurs and developing their business management skills yields both persons/firms positioned to respond to the opportunities resulting from policy reforms, and a necessary cause (condition) of the reforms themselves.

The FDI-II project is recognized as a model of the transition from a government controlled and operated fertilizer marketing system to a market-oriented fertilizer sector. There are may factors which contributed to the success achieved through FDI-II including a sound project design, a capable and dedicated project staff, and adequate availability of the resources needed for project implementation. However, an often overlooked factor and one which was absolutely essential to FDI-II project success was the productive working relationship that existed between USAID, the Ministry of Agriculture, and the FDI-II staff. This unique relationship, driven by a common will to achieve increased efficiency in fertilizer marketing and improved fertilizer use, was the key to project success. The experience of FDI-II offers instructive lessons and suggestions that provide a better defined strategy for the development of agribusiness in the country. The important lessons learned are:

The Bangladesh Government can affect the economic direction of the agriculture sector through the enactment of policy changes.
Competitive market forces play a major role in stimulating agricultural sector efficiencies.
Technical Assistance (TA)in concert with the government is essential to project success.
A community of entrepreneurs can be fostered through TA, training, and credit.
The benefits of proposed policy reforms must be explained continuously to public and private sectors.
Commercial credit is essential for agribusiness to replace production, distribution and marketing functions of the public sector, particularly in new, unknown & high risk areas.

Consideration should be given to retrenchment (e.g., retirement, out-placement or reduction-in-force) or training programs for government employees displaced by a transition to market economy.
The timely and systematic flow of information is essential for government and business decision makers.
Technology transfer is essential for privatization.

Policy reform, as a stand-alone activity, would not have been so successful as the two-pronged approach of FDI-II: the pairing of recommendations to government about what government should stop doing, with the developing of entrepreneurs already ready and able to fill the void resulting from government's ceasing some activity or easing some constraint.

X. CONCLUSIONS AND RECOMMENDATIONS

Project Review Committee comment on Institutionalization: the evaluator should have noted areas where institutionalization has progressed, and included these in the Report. The BDG has already recognized its savings resulting from fertilizer import and distribution de-regulation. Banks are profiting from the credit program: it appears that commercial credit also is institutionalized. The only recommendation rejected was the one to end the urea monopoly of the Bangladesh Chemical Industries Corporation. While the Mission does not disagree with this recommendation, it falls outside both FDI-II's Project Paper and implementing contract.

OFA has prepared and inserted an Errata page, and IFDC has provided a response letter which has also been inserted. With these two amendments, the Report is declared accepted.

Project Close-out Recommendations

1. BDG/BCIC should accept a variable (off-season discount) pricing policy at each BCIC factory, reflecting quantity, seasonal & cash vs. credit discounts.

   Responsible Office: MOA Completion Due Date: on going.
   How: discussions and analysis in the Fertilizer Interministerial Committee

2. BDG should review supply terms at fertilizer factory gates; obtain BCIC agreement to FOB delivery terms and payment on delivery.

   Responsible Office: MOA Completion Due Date: on going.
   How: discussions and analysis in the Fertilizer Interministerial Committee

3. Transfer FDI-II activities to ATDP, as appropriate per ATD project design.

   Responsible Office: OFA Completion Due Date: ATDP authorization process.
   A reduced set of information collection/analysis, policy formulation, and technologies with agribusiness potential were designed into ATDP.

4. Develop the Bangladesh Fertilizer Association and assist it to become a competent, dynamic organization.

Responsible Office: MOA,IFDC Completion Due Date: on going.
Assistance initiated under FDI-II is continuing under ATDP.

5. Enact a fertilizer control order, to: (i) promote integrity and discipline in market place, (ii) provide assurances that fertilizers are accurately identified, (iii) provide product quality and quantity control, and (iv) protect the interests of the farmers and traders.

Responsible Office: MOA Completion Due Date: on going.
This task is on the ATDP policy agenda.

6. Institutionalize the FDI-II MIS within both public and the private enterprises, to provide reliable market information and prevent a serious void with the close of FDI-II.

Responsible Office: MOA Completion Due Date: on going.
With assistance from ATDP, the MOA and the BFA are establishing information collection, analysis and publication capability.