PN-AAU-230

Bangladesh Agricultural Development Corporation
USAID Fertilizer Distribution
Improvement Grant 388-0024 ISN-43224

Engineering Consultancy Services Contract for Bagged Product Fertilizer Warehouses Project

NATIONAL FERTILIZER STORAGE PLAN

VOLUME I - NARRATIVE

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JULY 1980

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CONSULTING
ENGINEERS
INTERNATIONAL ENGINEERING COMPANY, INC.
A MORRISON-KNUDSEN COMPANY

NATIONAL FERTILIZER STORAGE PLAN

Comprises Of

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CONTRACT 9074

31 July, 1980

BANGLADESH AGRICULTURAL DEVELOPMENT CORPORATION
ENGINEERING CONSULTANCY SERVICES CONTRACT
FOR BAGGED PRODUCT FERTILIZER
WAREHOUSES PROJECT

INTERNATIONAL ENGINEERING COMPANY, INC.
CONSULTING ENGINEERS

NATIONAL FERTILIZER STORAGE PLAN

1.0 INTRODUCTION

Since the outline National Fertilizer Storage Plan (NFSP) was published in January 1980, planned developments in transportation and revised fertilizer use projections have brought about changes in requirements for the storage system, including the functions of individual warehouses, siting them with respect to the transportation system and sizing them for 1985 sales. Considering the transportation modes in planning the storage system, it has been necessary to make the specific assumptions about the workings and capabilities of the transport system which will be available to supply the warehouses. All plans such as this NFSP which rely on future developments or events, are subject to reviews in the light of actual events. The model upon which this NFSP is based should be re-evaluated, its premises checked, and its data base updated to reflect 1981-85 transport changes and fertilizer sales. The NFSP is not a static document, but instead is an adjustable plan with which to build an adequate, fully functioning fertilizer storage and distribution system.

1.1 Contract Scope of Services for the National Fertilizer Storage Plan (NFSP)

The Consultant's services for preparation of this NFSP are provided for by the Second Amendment to IECO's contract with BADC for Engineering Consultancy Services for Construction of Bagged Product Fertilizer Warehouses (Phase II). The scope of services defined in this Amendment, dated 8th April, 1980, is as follows:

"Based upon thanawise fertilizer sales projections and related total national storage requirements for 1985 and 1990 as provided by BADC, IECO will:

(a) During the month of January 1980, prepare an Outline National Storage Plan consisting of a preliminary list of primary distribution point (PDP) warehouses plus tentative storage capacities assigned to each one.

(b) Within nine months from date of contract approval, prepare a National Fertilizer Storage Plan (NFSP) in consultation with BADC, to include a final list of PDP's, the planned storage capacity at each PDP, a site sketch at each PDP indicating positioning of buildings and related structures such as approach roads, wharves and rail sidings as required, and a narrative explanation of the need for and function of each PDP."

1.2 Outline NFSP

The Outline NFSP established locations of PDP (Primary Distribution Point) Warehouses with storage capacities to meet the projected fertilizer sales for 1985 and 1990. Some PDPs were identified to include transit storage capacities to supply other PDPs. The background data cited on the outline NFSP were:

(1) (Draft) "Thana Level Agronomic requirement and sales Projections for Fertilizer for 1985 and 1990"
Oct. 31, 1979; M.K. Hussain and Md. Latifur Rahman.

(2) "Review of BADC's 1979-80 Fertilizer Import Program",
July 25, 1979; John M. Hill, IFDC.

Reference (1) provided the data to compute the fertilizer sales projections at each PDP when the locations and the Thana servicing areas are defined.

Reference (2) provided a basis for calculating the storage capacity of each PDP warehouse. Capacity was based on the highest three (3) months warehouse fertilizer sales. At locations where warehouses provide transit storage for fertilizer destined for other PDPs, added capacity amounting to one month's (in 1985) sales of the PDP being supplied from the transit warehouse was included. The Outline NFSP provided the basis for discussions with BADC's Storage Managers during IECO's field trips to the Districts, and aided considerably in formulating the concepts upon which this National Fertilizer Storage Plan is based.

1.3 Planning Considerations

Since the Outline NFSP was produced in January 1980, the events and the factors which have most influenced, modified and considerably expanded the NFSP preparation work, resulting in the findings and conclusions contained in this (draft) final NFSP include:

1.3.1 The planned institution of unit train service for movement of Urea fertilizer from the Ashuganj and Ghorasal factories to almost all parts of Bangladesh, and for movement of imported (TSP and MP) fertilizer from Shiromoni to destinations in Northwest Bangladesh. Financial assistance for development of the facilities and equipment to service unit train operations was initially offered in February 1980, by the World Bank. Planning for the NFSP fully incorporates this unit train concept, and IECO's design engineering for the construction programs provides for track facilities to implement unit train service to a great number of planned PDP warehouses throughout the country.

1.3.2 Revised Fertilizer Sales Projections, developed by the Planning Commission. Nationwide, this amounts to an increase of 23% in projected fertilizer sales over the 1.65 million tons earlier projected by BADC/USAID (as used in the Outline NFSP). The new sales projection is for 2.03 million tons in 1985, but no projections were made for 1990 for consideration in the NFSP.

1.3.3 Analysis of BADC's monthly fertilizer sales statistics reveals a preponderance in fertilizer sales during the dry season period from October to March, amounting to 59.89% of the annual sales. Coupled with this fact Bangladesh Inland Waterways Transport Authority (BIWTA) has provided current information about river draft restrictions that effectively limit the inland waterway movement of fertilizer from ports and factories to various riverine destinations during the dry season. This imposes seasonal changes in warehouse stocking methods, and impacts on stocking plans under development (by BADC's consultant IFDC) for specific locales where replenishment of stock presents a problem during the dry (or wet) seasons. Bangladesh Inland Waterways Transport Corp. (BIWTC), which handles almost all of BADC's inland waterway transport of fertilizer has also furnished operational details and problems for consideration in drawing up the fertilizer movement plans of the NFSP.

1.3.4 Storage capacity at the warehouses, initially planned for the highest three (3) months' sales, have been adjusted in some areas in consideration of transportation constraints presently experienced (by BADC) in replenishing upcountry warehouse stocks. Also due to problems in scheduling ship arrivals bringing in imported TSP and MP fertilizer, periodic shortages of these products occur. As a solution to this problem, BADC is embarking on a program to build up a 5 month buffer stock at transit godowns, in relation to the annual fertilizer sales.

1.3.5 Locations of PDP Warehouses, PDP cum Transit, and Transit Warehouses were discussed with BADC's District Managers, and subsequent discussions held with BADC's Storage Management officials, USAID Agriculture Division representatives, IFDC's fertilizer distribution consultant, and IECO's storage program planning staff. Agreement was reached on 95 locations for operation of PDP system warehouses, subject to field verification by IECO of the suitability of these locations and location of available, satisfactory site properties. In several instances, IECO's field investigations resulted in recommendations for alternative locations, and modification to the PDP warehouse site list.

1.3.6 Fertilizer movements, which were not specifically called out for detailed study and analysis in the Scope of Work of the NFSP, NFSP early became an area of special concern and importance in NFSP exercise. The main concern of BADC District Managers centers around their restocking arrangements and delays involved due to inadequate allocated transport. Warehouse site selections have been singularly dependent on the transport mode available (or to be developed). Knowledge of the fertilizer supply movements involved in stocking is prerequisite to site selection. The facilities for receiving/dispatching fertilizer shipments are being incorporated in the plans for construction of each PDP Warehouse included in the current USAID-funded and World Bank-funded construction programs.

1.3.7 Investigation of the port at Chalna. This confirms the draft restrictions identified in the SOROS Report. Chalna Port and Shiromoni warehouses and transhipment facilities are under design, to provide essential fertilizer movement capabilities and installations. At this publication date, the arrangements for construction of warehouse at Chalna have not yet been made.

1.3.8 Study of the several modes of transportation available for movement of fertilizer, and tabulation of comparative costs, has provided criteria to determine which receiving and handling facilities to provide at each warehouse site. As these transport data were developed, already identified sites were re-examined. Some were determined to be unfavorably located, and more advantageous sites were subsequently located, surveyed and recommended for acquisition and development.

1.3.9 The inventory of existing warehouses has changed frequently during this study, and will be further changed as BADC acquires completed godowns (from Bangladesh Warehousing Corporation), to overcome critical shortages of storage capacity at some locations. BADC's Seed Division has transferred some godowns for fertilizer storage; and some fertilizer godowns have been transferred for seed storage. Under the New Marketing System, evaluation reports of fertilizer sales at some locations have revealed low sales figures which cannot justify the continued operation of particular fertilizer warehouses. Some godowns in this category have accordingly been abandoned for PDP use, and will be transferred to the Seed Division. Many other smaller godowns will cease to operate in future, when the new PDP godowns are in operation under the New Marketing System.

1.3.10 At several locations a suitable site for warehouse construction could not be found, due either to unsuitable soil, inadequate available land area, or unavailability of land favorably situated to receive fertilizer via rail or river craft. In each such case an alternate site, sometimes miles distant, has been found and nominated to the NFSP PDP site list.

1.3.11 An important (penultimate) planning and coordinating step in formulating the NFSP site program involved promulgation and subsequent adoption of a full list of new warehouse site locations and building sizes, after consideration and some modification by BADC Officials and the concerned Advisors and Consultants associated with BADC's fertilizer program. Site investigations were still in progress at that time, in early May, and a few changes in the adopted site list eventually occurred as a result. However, the essential objective of determining the specific warehouses to include in planned construction programs, along with the identification of priorities of the warehousing programs, was achieved. The site development program of this NFSP represents an amalgam of opinion and viewpoint of the concerned Officials of BADC, representatives of Sponsoring Agency USAID, and BADC's fertilizer distribution Consultant IFDC.

2.0 THE SYSTEMS APPROACH

In dealing with BADC's Storage problem, the investigations have demonstrated the interrelated aspects, and impacts on storage requirements, of such factors as transport modes, routes and reliability of service; and seasonal sales levels and frequency of restocking. Each aspect of the supply-transport-sales picture is in reality part of a larger entity in the NFSP framework. The Systems Approach has been applied in developing the framework and identifying the key constituents of the NFSP.

2.1 The Systems Model

Exhibit 2.1

The Systems Model for the NFSP is hierarchial, as with most such systems. The interacting structural relationships are indicated by lines connecting one sub-system to another. It is by examining each sub-system in detail, progressing from the lowest level upward, that the overall view of requirements is seen. The hierarchial relationship applies in examining the impact of changes in the variables or constraints, and the Model accommodates review and modifications to NFSP objectives and investment decisions. Substantial remodelling to accommodate important new elements introduced into the Model is also possible. The NFSP is not a static document containing long-term unchangeable investment objectives and programs.

2.2 The System Defined

The NFSP defines a network of BADC-owned and operational warehouses that will function under the New Marketing System (NMS), to sell fertilizer to dealers. These will distribute product to the farmer-users. The NMS establishes Primary Distribution Point (PDP) warehouses at strategic locations throughout Bangladesh. The NMS has been implemented in parts of the country, and with construction of new PDP warehouses under the USAID-Grant Phase II program, the World Bank-funded construction program, as well as others, the NMS will be established throughout Bangladesh. USAID has been instrumental in assisting BADC to install the NMS. Dealers will obtain fertilizer from BADC's PDP warehouse at a discount from the official retail price, and as this incentive scheme takes hold the sale and distribution of fertilizer to the farmer-users will lie entirely in private hands.

2.2 The System Defined (Continued)

For the PDP warehouses to function as a network under the NFSP, a system for replenishing warehouse stocks is simulated, available transportation resources examined, and system constraints evaluated in detail. To identify the constraints of this system and sub-systems, then analyse problem areas for optimum remedies to lessen or eleminate constraints, is not a simple task of selecting between alternative economic solutions:some of the investments needed to expand and improve the existing fertilizer storage and distribution facilities and resources to meet 1985 requirements are quite costly. But in terms of the human and economic benefits to be realized in helping Bangladesh to become self-sufficient in food resources, they are demonstrably worthwhile.

2.2.1 System Purpose.

Objectives of the NFSP can be defined as follows:

A) To provide BADC with a Fertilizer Storage Plan for the country, to meet the storage requirements for fertilizer sales projected for 1985, considering the institutional resources available or developable to support the plan's operating requirements.

B) To locate suitable PDP warehouse sites, prepare Land Plans to enable BADC to acquire properties, and provide an operational guideline for BADC to follow in developing all of the needed facilities.

2.2.2 System Components

The essentials of storage planning may be identified as:

A) A network of existing warehouses identified for continuing operation under the PDP System.

B) A Stock Control Plan for operation under the PDP System that will establish inventory levels to be maintained at the various PDP warehouses.

C) A Buffer Stock Plan to cope with the irregularities in supplies of fertilizer arriving from imported sources.

D) Criteria for arriving at the storage requirements for new warehouses, considering the three component factors mentioned above.

E) Identification of necessary transit storage warehouse capacity.

F) A program for construction of warehouses.

2.2.3 System Structure

The Systems Structure defines the inter-relationships, between various components of the system that satisfy its behaviour. Study of the various components leads to an understanding of the local fertilizer consumption situation, the need to produce or import fertilizer, and the ways and means of moving fertilizer from the various sources to the NFSP-designated destinations.

2.2.4 System Constraints

System Constraints are the variables, including environmental conditions, under which the whole system must operate. Each area or sub-system of the structure is examined. Where problems are encountered they can be formulated into a model and drawn up, and the problem solved systematically.

The constraints identified for consideration in formulating the NFSP are summarized in brief:

A) 1985 Fertilizer Sales Projections adopted by the Planning Commission.

B) Locations agreed upon for operating the PDP warehouses including Thana's served by each.

C) Adjustsments for seasonal variations in fertilizer sales.

D) Modes of transportation available for fertilizer movements from source points to individual warehouse locations.

E) Transportation movement costs from source to destination, by mode.

F) Proposals for development and improvement of transportation facilities, system operations and capabilities.

G) Availability and reliability of transportation systems in operation.

3.0 SYSTEM CONSTRAINTS

This is the level from which the real world environment shall be studied in detail. Each constraint is a sub-system at the lowest level in the hierarchy of Systems. Within this level inter-relationships between the sub-systems and their inter-dependence can be identified.

3.1 Fertilizer Sales Projections

Many projections have been made of the fertilizer sales and the agronomic requirements. The outline NFSP's basic data were projections developed by USAID/BADC for 1.65 million tons of fertilizer sales in 1985. There were, in all, four projections made for 1985. A review has been made of all these projections.(*) The Committee's Report recommended the projections given by the BADC and Ministry of Agriculture for a target of 2.03 million tons fertilizer sales as a more realistic target. BADC, acting to implement the Planning Commission Projections, requested IECO to use this projection for preparation of the NFSP. The Planning Commission projections were based on Districtwise fertilizer sales for 1985 and did not provide Thanawise projections, needed for the NFSP. IFDC staff consultants prepared thanawise projections for national agronomic requirements, and were of the opinion that the Planning Commission projected target of 2.03 million tons fertilizer sales for 1985 is a realistic one.(**)

Table 3-1

3.1.1 The Districtwise 1985 Fertilizer Sales Projections breaks down sales for Urea, TSP and MP for each District. These fixed District totals for each type of fertilizer were then broken down into 1985 Thana demand components, which were further broken down into seasonal product requirements considering seasonal demand fluctuations.

(*) REPORT OF THE COMMITTEE ON FERTILIZERS (For the Formulation of the Second Five-Year Plan), November, 1979.

(**) "Volume II,
A MICRO STUDY OF POTENTIAL AGRONOMIC FERTILIZER REQUIREMENTS FOR BANGLADESH BASED ON (1) THANA-WISE SOIL TYPES AND (2) THANA-WISE CROP ACREAGES" DR. M. AMIRUL ISLAM, IFDC, April, 1980.

3.1.2 The USAID/BADC's Thanawise 1985 Fertilizer Sales Projections form the basis for adjustment from District to Thana demand levels. Each District's need for Urea, TSP and MP is expressed as a percentage of the total. The adjustment formulas are as follows:

Table 3-2

Exhibit 3.1.2

$$\text{Thanawise Fertilizer Sales} = \left[\text{USAID/BADC's Thanawise Fertilizer Sales}\right] \times \left[\frac{\text{BADC/M. of A's District Total Sales Projection}}{\text{USAID/BADC's District Total Sales Projection}}\right]$$

The Productwise breakdown is as follows:

$$\text{Product: (Urea or TSP or MP)} = \left[\text{Thanawise Fertilizer Sales}\right] \times \left[\text{\% of Product: (Urea or TSP or MP) for each District}\right]$$

It must be remembered that there are other factors influencing the farmer's actual demand of fertilizer besides the nation's desire to double the crop production during the Second Five Year Plan. These include weather, fertilizer and crop prices, availability of retail credit to farmers and others.(*)

Existing schemes and incentives designed to motivate the farmer to use more fertilizer are not addressed in detail here. It is not in the terms of reference of this NFSP to examine these, but to work with the sales projections given, assuming BADC will endeavour to reach these sales targets.

3.2 PDP Locations

In a series of meetings involving BADC's District Storage Managers, Headquarters Storage Officials, USAID Agricultural Division representatives, IFDC's resident consultant for fertilizer distribution, and IECO's storage planning staff, a list of PDP warehouse locations was agreed upon. This list was a final one, contingent only on IECO's field investigation team's success in locating suitable site properties at a number of the identified locations for PDP warehouses. Several site location changes became necessary, and alternate locations were found and recommended, where designated localities were found to have no suitable sites.

(*) "REVIEW OF BADC'S IMPORT PROGRAM AND SUGGESTIONS FOR UPDATING PROJECTIONS OF IMPORTS SUPPLY, SALES AND STORAGE" (Working Draft), JOHN M. HILL, MAY 25, 1979.

Descriptive information about the PDP warehouse sites is included in the Section 6.0. The considerations which guided selection of localities, and sites for the warehouses, are explained below.

3.2.1 Thana Servicing Areas

Determination of the intended service area of each PDP warehouse takes into account the accessibility of the location to Thanas served, considering availability (or provision) of access facilities such as roads and waterways. Decisions as to location of PDP sites have been made with the assistance and guidance, with local knowledge, of BADC's District Managers and other BADC officials closely involved with NFSP planning. The primary considerations for each PDP site selection concerned accessibility to receive supplies of fertilizer and favorable location to make sales. The mode of transport involved in supplying the warehouse (rail, rivercraft or truck) received very careful consideration in all site selection decisions.

Exhibit 3.2.1

Table 3-3

Improvements in road communication facilities over the years may affect the thana servicing areas of each PDP. Under the NMS there is no restriction on transport by dealers, who may purchase fertilizer from any warehouse where stocks are available. The sizing of each PDP warehouse is necessarily planned on the basis of its accessibility for periodic resupply and convenient location for sales. With this marketing system it is important to provide conveniently located sales outlets without, however, building prematurely to meet future sales expectations which may not be realized until later years.

3.2.2 Actual Seasonal Sales by BADC and Seasonal PDP Sales Projections

Table 3-4

Table 3-5

Table 3-6

BADC's actual monthly fertilizer sales for the period July 1979 to May 1980 document a preponderance in fertilizer sales during the dry season (October to March).* The impact of the higher dry season sales, 59.89% of the annual total, is felt both as concerns warehouse storage capacity requirements and as concerns restocking schedules. Higher dry season use is for several reasons;

a) All crops consume a major portion of fertilizer doses during sowing and planting. Among rice crops, "Aus" is sown from mid-March to mid-May, "Aman" is transplanted from mid-June to mid-September and "Boro" is transplanted from December to January. Largest areal coverage of high yield varieties (HYV) in "Boro" season, HYVs' much higher fertilizer-responsiveness than local varieties, provision of irrigation facilities for "Boro" HYV crop, and winter vegetable farming requiring high fertilizer intake largely accounts for higher fertilizer sales in the dry season.

(*) Source: BADC Monthly Fertilizer Newsletter, No.27, Dated 15 June, '80

b) Better road conditions during the dry season permit more lifting of fertilizer than during the wet season.

c) Inclement conditions restrict all activity during the rainy season.

Seasonally adjusted PDP sales levels, by product, can be further examined against the limits of transportation resources and the fact that certain important rivers may not have sufficient draft for barges to move fertilizer during the dry season.

3.3 Modes of Fertilizer Movements

Given origins and destinations, all modes of transportation have been examined for economic and logistical feasibility.

USAID's Project Paper identified the transportation constraints that hampered fertilizer movements.(*) Regarding road and water transport the project paper recommended that the Bangladesh Government undertake and review of their fertilizer movement contracts with a view towards rationalizing them. An Evaluation Paper by USAID also points out that inadequate truck transport is caused by deficiencies in BADC contracting methods rather than in equipment shortages.(**) IFDC has addressed the subject on BADC's Contracts for Handling and Forwarding and has recommended changes to existing contracts in order to overcome certain noted deficiencies.

The USAID Project Paper also pointed out that railway wagons remain unavailable in sufficient quantity. An examination of rail freight statistics indicates a stagnant rather than growing capacity of the rail system to move goods.

(*) PROJECT PAPER NO. AID/BAS-008 "Proposal and Recommendations for the Review of the Bilateral Assistance Subcommittee on BANGLADESH - Fertilizer Distribution Improvement I" June 23, 1978.

(**)"EVALUATION OF THE FERTILIZER DISTRIBUTION IMPROVEMENT I GRANT PROJECT", March 8, 1979.

(***)IFDC letter dated May 15, 1979, addressed to General Manager (Supply), BADC. Subject: "BADC Contracts for Handling, Carrying & Forwarding".

IFDC has estimated an average transit time from source to PDP of 18 days for rail movements, compared to 2 days for trucks and 12 days for barge.(*) Network and routing inefficiencies are made evidently railway wagons pile up at some rail yards such as Kulaura. Recognizing these shortcomings, the Aide Memoire (**) outlined for consideration of substantial assistance in funding projects involved in fertilizer transportation. The USAID Project Paper acknowledged the problem and included a convenant to be complied with as a pre-condition for approval of the grant for the Fertilizer Improvement I Project, which states: "The Government will assign an effective priority to fertilizer transport, establish rationalized rate structures for fertilizer movement, and take all other necessary measures to meet fertilizer transport needs."

Rail movements are the exclusive monopoly of the Bangladesh Railways (BR). Inland waterway transportation is handled by Bangladesh Inland Waterway Transport Corporation(BIWTC) with some level of competition from the private sector. Trucking is entirely private, being done on a contractual basis. The Fertilizer Movement Plans will form the basis for operational scheduling by BR and BIWTC to meet required stock levels and sales targets. Any serious shortcomings by BR or BIWTC will deter the full implementation of the Fertilizer Movement Plans which activate the functional aspects of the NFSP.

3.3.1 Trains

The World Bank Aide Memoire "Fertilizer Transport Appraisal Mission" agreed to finance a Unit/Block Train Operation with the main objective being the improvement of the rail transportation of fertilizer thus reducing overall transport costs. The concepts of the Unit/Block Train Operations as outlined in the Aide Memoire are:

a) the train will be operated as a 50-60 wagon unit servicing a maximum of two destinations;

b) the maximum time for loading or unloading of a full train of 50-60 wagons shall not exceed 24 hours;

c) a train may be booked for two destinations only if the second is between the origin and the final destination and reasonably close to the final destination;

(*) Table C-3, "Review of BADC's Import Program and Suggestions for Updating Projections of Imports, Supply, Sales and Storage" John M. Hill, May 25, 1979.

(**) AIDE MEMOIRE, "FERTILIZER TRANSPORT APPRAISAL MISSION" February 24, 1980.

d) all trains will be equipped with vacuum brakes;

e) both the BADC and BR will take all measures to ensure the security of the cargo and rail equipment;

f) The agreed origins and destinations for the proposed Unit/Block Trains Operation are:

	Broad Gauge (BG)	Meter Gauge (MG)
Origins:	Shiromoni	Ghorasal Ashuganj
Destinations:		
	1. Ishurdi or Muladuli	1. Kishoreganj
	2. Natore	2. Mymensingh/Shambhuganj
	3. Rajshahi	3. Jamalpur
	4. Santahar	4. Gaibandha
	5. Joypurhat	5. Rangpur
	6. Parbatipur	6. Parbatipur
	7. Saidpur	7. Dinajpur
		8. Bogra
		9. Santahar

3.3.1A Since publication of the Aide Memoire rail siding lengths at a number of destinations have been reduced for economic reasons, to a 30 wagon capacity instead of a 60 wagon capacity as originally planned. The destinations detailed when Aide Memoire was written are not the PDP locations finally agreed upon. The actual destinations to be served by rail originating from Shiromoni are shown on the TSP and MP Movement Program maps. These thirteen (13) destinations are: Muladuli, Sirajganj, Atrai, Rajshahi, Amnura, Rohanpur, Natore, Santahar, Joypurhat, Charkai, Parbatipur, Saidpur and Domar. The Urea Movement Program originating from Ghorasal during the Dry Season will serve nine (9) destinations: Comilla, Gaffargaon, Mymensingh, Jamalpur, Melandah, Gaibandha, Mahendranagar, Bogra and Santahar. During the Wet Season, Ghorasal will serve eight (8) destinations; Gaffargaon, Mymensingh, Jamalpur, Melandah, Gaibandha, Mahendranagor, Bogra and Santahar. The Urea Movement Program from Ashuganj during the Dry Season indicates twelve (12) destinations served: Sararchar, Kishoreganj, Netrakona, Jaria,

Exhibits 4.3.8A 4.3.8B 4.3.10A 4.3.10B

Exhibits 4.3.2A 4.3.2B

Exhibit 4.3.1A

Shambhuganj, Gaibandha, Rangpur, Parbatipur, Saidpur, Dinajpur, Shibganj and Panchagar. During the Wet Season, Ashuganj will serve sixteen (16) destinations: Sararchar, Kishoreganj, Netrakona, Jaria, Shambhuganj, Gaibandha, Rangpur, Parbatipur, Saidpur, Dinajpur, Shibganj, Panchagar, Comilla, Laksam, Chaumuhani and Chittagong.

Supplemental to Unit Train operations, BADC can book block trains of about 60 wagons each from BR for fertilizer movements. Urea produced at the Fenchuganj Urea Factory will rely on normal train service provided by BR for movement. Similarly, TSP from local production and imports of TSP and MP through Chittagong will rely on normal train service. Transfers between the two gauges at Santahar and Parbatipur will be subject to the availability of normal goods wagons from BR to achieve the movement targets.

3.3.1B The assigned routes for unit train operations follow closely normal passenger train routes. Normal Block Train routes are generally the same as normal passenger train route movements.(*) Transfer between gauges takes place presently at Santahar. A second transfer point between meter and broad gauges at Parbatipur is suggested under the NFSP to relieve the conjestion at Santahar. Santahar will be used for transfers from MG to BG to destinations such as Joypurhat, Atrai, Natore, Rajshahi, Amnura, Rohanpur, Muladuli and Sirajganj. Parbatipur will be used for MG to BG transfers to Charkai and Domar. MG to BG transfers are necessary for Urea originating from Ashuganj and Ghorasal. For BG to MG transfers, Santahar will be used to meet TSP and MP requirements of Bogra and Gaibandha; Parbatipur will handle cargo to Dinajpur, Shibganj, Panchagar, Rangpur and Mahendranagar. BR has agreed in principle to operate Parbatipur as a transfer point, although presently all transfer facilities are at Santahar. BR has also agreed to carry out requisite improvements of facilities at the railway stations receiving unit trains.

An additional rail constraint was dealt within the Aide Memoire

"(c) the rail ferry crossing between Tistamukhghat and Bahadurabad Ghat was found to be one of the most serious bottlenecks in improving the transportation of fertilizer. In order to improve the ferry operations the following steps need to be taken:

(*) BANGLADESH RAILWAY,
Working Time Table No. 15; CHITTAGONG AND DACCA DIVISIONS; PAKSEY AND LALMONIRHAT DIVISIONS in force from 15 November, 1979.

(i) BR will take necessary action for improving the management and co-ordination of the ferry operation. Consolidating management and/or providing clearly defined required authority/ responsibility over operation and control of the rail, marine, civil works and maintenance of the ferry crossing from Dewanganj Bazar to Bonarpara is the first step towards such an improvement;

(ii) the replacement of steam shunters with newly acquired diesel shunters should be arranged as soon as possible;

(iii) under the project, pending further investigation by the Mission, consideration will be given for rehabilitation of one rail wagon barge (WFB7) and modification of the tug M.T. Ishakhan, provision of a small workshop for minor maintenance of tugs, barges and diesel locomotive shunters, provision of a number of prefabricated structures for housing and stores for civil works and provision of two rail tank wagons (rehabilitation) for diesel fuel for shunters;

(iv) IDA will attempt to obtain expert opinion concerning the possibility of rehabilitating of re-engining the tug;

(v) it was agreed that the Marine-Superintendent will review and undertake a plan to modify the location of the searchlight so that the full ferry capacity can be utilized at night (presently one track must be kept empty);

(vi) the telecommunications between the ferry crossings and the other operation related points were found to be grossly inadequate. The Mission recommends that BR initiate a review of the present communication situation at the ferry operation and possible alternatives .... The Association will make all efforts to send a telecommunication Specialist to Bangladesh in April to finalise the ghats' telecommunication needs in particular and BR's telecommunications problems in general, to ensure that unit train operations can be monitored and controlled by the operations control center;

(vii) BR will make all efforts to have the barge presently under repair at Narayanganj in operation as soon as possible.

(d) in order to ensure proper coordination, operation and control of the rail operations an Operation Control Cell will be established and located in BR's Dacca Division headquarters. This Cell will be manned around the clock, if necessary, by officers from BADC and BR. Communications equipment for the operation of the center will be considered".

All efforts by the Mission have one main objective in mind, to maintain one unit train ferry crossing a day and one empty return per day. The Mission also suggested :

"The proposed unit/block train operation will function on a contractual basis between BR and BADC. Such a contract will be drawn up based on a final operating plan and will set forth the financial arrangment and performance and obligations of each party. Under the project technical assistance will be provided to plan and implement initial operations and to provide advice concerning contracting arrangements."

3.3.2 Barges

BIWTC operates fleets of inland flat barges, dumbs, bay crossing barges and bay crossing coasters. Capacities vary from 100 tons to 950 tons. The 250 ton barge is the smallest used for fertilizer movement. Loaded drafts vary but a river draft of 6 to 8 ft. is needed for barges to ply the routes. Loaded drafts of barges range from five and a half to six and a half feet, with most being near 6 and a half feet. Coasters have a loaded draft of about 12 feet.

3.3.2A BIWTC is in competition with the private sector for fertilizer movement contracts from BADC. BIWTC's rates are quoted in ton miles and apply only to their standard routes. Careful scheduling with attention to the loaded draft of each vessel and river draft restrictions (particularly in the dry season) is a necessity. Presently BIWTC has a term contract to carry fertilizer from the Ghorasal Urea Factory. A similar contract to carry fertilizer

from the Ashuganj Urea Factory has yet to be finalized. The TSP and MP movement plans included with the NFSP are a basis from which BADC and BIWTC can negotiate and plan the inland waterway transportation requirements to meet the sales targets of 1985.

3.3.2B Private carriers also bid for contracts to haul fertilizer, usually on routes not serviced by BIWTC. Currently, upstream routes from Bhairab are handled by the private sector. By 1985 much of the traffic may be handled by private carriers due to the overall increasing demands on BIWTC vessels and the increasing capacity of private firms to offer competitive service.

3.3.2C Waterway routes and products carried are shown on the Movement Plans. BIWTA has several dredging programs planned for the next five years (1980-85). Improvements to the Surma-Baulai river from Dilalpur to Chhatak are in progress. When completed these will make barge navigation possible during the dry season from Bhairab-Ashuganj to Jamalganj and Sunamganj. The ongoing improvement of the Daudkandi channel from Daudkandi to its confluence with the Meghna will allow larger vessels to reach Daudkandi in the dry season. The proposed improvement of the Madhumati Beel route will help vessels move from the Chalna/Khulna area to Padma via Gopalganj and Madaripur. This route will also be used for the movement of fertilizer from Ghorasal and Ashuganj areas to Gopalganj and Madaripur. The Baghabari inland port development (to be funded by the World Bank) includes a dredging program to provide adequate river draft for year-round operations. 1978 surveys of the river from Chandpur to Baghabari revealed severe river draft restrictions at certain points, some drafts being less than 3 feet during the dry season. An additional program has been proposed to dredge the Atrai river in order to provide an alternative cheap transportation route for shipping coal deposits discovered in that part of the country.

Exhibit 3.3.2C

The waterway route from Chalna to Shiromoni needs to be carefully analysed.. All of the Northwest Districts' TSP and MP fertilizer comes in via this route. There cannot at any time, be bottlenecks or interruptions in the flow of fertilizer between Chalna and Shiromoni.

Stocking of PDPs at Sandwip and Hatiya by barge is severely restricted and is limited by weather systems in the Bay of Bengal to the dry season only.

3.3.3 Trucks

Truck is dominated by the private sector. BADC has revised its trucking contracts, with IFDC assistance, and developed a base price schedule for routes presently relied on for truck movements. The new contracts call for bidders to insert their percentage adjustment to these base prices. This limits the previous practice of contractors submitting unbalanced bids, performing on the profitable routes and defaulting on the others. Unbalanced bids can now be easily detected and rejected prior to contract award. Truck service is both more reliable than other modes of transportation and has the lowest average transit time, estimated at two(2) days for delivery of fertilizer from origin to destinations. It is, however, the most expensive mode of transportation, on a per ton basis, for distances greater than 25 miles when compared to rail and barge costs. Trucking costs are also directly linked to full prices. The impact of the recent 45.29% increase in petroleum prices (*) on BADC's fertilizer movements is obvious and has made BADC more reliant on Bangladesh Railways and BIWTC. Although the July price increase came too late for fuel analysis and consideration in the NFSP, new cost ratios will require a review of long distance trucking operations and feasibility. In the West Zone rail service, where capacity is available, should be considered for fertilizer movements to Kushtia and Jessore Districts as a substitute for increasingly expensive truck service. If rail service is utilized to Kushtia and Jessore, normal train service capacity at Roosevelt Jetty should be employed, and fertilizer barges should be diverted to Roosevelt Jetty instead of Shiromoni for direct transfer to the railroad.

3.3.3A Trucks Provided by Private Sector

The private sector will respond to fertilizer transportation needs where the rates allow a normal profit. Under the NMS the dealers will have to rely primarily on trucks to lift fertilizer. Given the heavy demand for trucks at this level BADC should look to BR and BIWTC for long haul transport needs, thereby making available trucking capacity for the dealers. By freeing this supply of trucks the inflationary impact of overall trucking costs is diminished, particularly so in times of shortage.

(*) THE BANGLADESH OBSERVER, 21 July 1980 pg.1 High Speed Diesel Oil is priced at Taka 23.18 (Ex-Pump price) per gallon.

3.3.3B BADC Owned Trucks

In some Districts BADC-owned trucks are used to replenish stocks, or meet shortages, of fertilizer at remote Thana Sales Centers (TSC). These remote TSC's will be generally phased out when the PDP system is put into operation. TSC's will continue to exist in those areas which are so remote that private sector dealers cannot profitably operate. Excepting this case there is no justification to retain TSC's under the NMS. The success of the NMS is predicated on closure of the TSC's. USAID is monitoring the NMS implementation countrywide and Evaluation Reports for some Districts (Chittagong, Comilla and Sylhet) have been completed. The need for BADC-owned trucks will be minimal when the NMS is implemented and PDPs are brought on line.

3.3.3C Truck Routes, Constraints, Future Plans

The World Bank Aide Memoire stated that decking the Hardinge Bridge for highway use would not only facilitate the distribution of fertilizer, but would serve other road transport users by eliminating costly ferry service and vehicle waiting time. The deck would facilitate convenient and fast deliveries of fertilizer to Kushtia from Muladuli. However, there is apparently a negative view about the proposed decking, At this writing no decision has been made to provide for high way use of the bridge.

The Aide Memoire also proposed funding the final engineering of permanent deck on the Tista Bridge. This will open Lalmonirhat and Kurigram regions to more convenient road communication with Rangpur. The Khulna-Mongla road is new under construction. This will provide the Port of Chalna (at Mongla) with road access to Khulna and Barisal. Fertilizer would however be more economically moved out of Chalna by barge to Shiromoni and other points rather than trucking to destinations or to rail transfer points.

3.3.4 Summary

The river system is a natural asset to be utilized to the fullest for fertilizer movements. The river routes provide relatively inexpensive transport service to many areas of the country. The rivers are also a natural impediment to overland movements highway or sail, necessitating ferrys and bridges.

Also vital for fertilizer movement is rail transport, and long distance shipments of 1000 to 1300 tons could be made on a regular basis if equipment, schedules and shipping and receiving facilities are developed for unit train operations. Truck shipment will remain the primary mode of fertilizer transporation for short haul routes and intermediate haul routes where rail or water transport does not provide attractive alternative.

3.4 Fertilizer Movement Costs

Of the three transport modes for fertilizer, movement by rivercraft is generally the least expensive, followed by railway and road transport. River movement costs have been supplied by BIWTC, railway costs by Bangladesh Railways and road transport costs calculated from bids received by BADC. The price structure of BR's and BIWTC's service, as the price of petroleum products, is fixed by the government. The July, 1980 petrol price increase has not been included in our calculations, but will only make the truck option less viable.

3.4.1 Movements from Chittagong

Table 3-7

Chittagong has rail, river and road facilities for fertilizer movements. Movements out of Chittagong would optimally be direct from the port in order to eliminate double handling costs.

Table 3-7A

3.4.1A Railway transport is more economical than road to PDP warehouses such as Dohazari, Feni, Chaumuhani, Laksam, Comilla, Brahmanbaria and for warehouses in the Sylhet district.

3.4.1B River transport is cheaper to Narayanganj/Demra, Narsingdi, Kuliarchar and Bhairab as compared to rail transport. It is also cheaper to move by river to Narayanganj/Demra and then by truck to Joydebpur, than to move directly by rail.

3.4.1C Road transport will serve short distance hauls such as to Dohazari (to which BR does not provide goods service) and to Feni, where the rail yard has no proper siding facilities for receiving fertilizer and where the adjacent road does not facilitate fertilizer loading to trucks.

3.4.2 Movements from Chalna

At Chalna, the river is the only available transportation option. Possibly in the future, rail service may provide an alternative.

Table 3-8

The high volume of river shipments out of Chalna oblige BADC to depend on BIWTC to provide a reliable service. A barge fleet dedicated to transfer of fertilizer from Chalna to Shiromoni in sufficient volume to supply almost daily unit train shipment originating at Shiromoni, is an integral part of the movement plans of the NFSP.

3.4.3 Movements from Ghorasal

Table 3-9

Ghorasal has available all three modes of transport. Unit trains can operate from Ghorasal when the spur line is repaired and two short sidings (15 wagons each) as originally designed, are added.(*) The river has draft restrictions of 4 to 6 feet during the dry season which hampers the movement of fully loaded barges (requiring about 6 feet 6 inches draft). The road route from Ghorasal is linked to Narsingdi, and extends south to Narayanganj/ Demra.

Table 3-9A

3.4.3A Railway movements are at BR's fixed contract rates. Rail conveyance charges for the urea shipments to Gaffargaon are cheaper from Ghorasal than from Ashuganj. Urea conveyance charges by rail to Joydebpur are cheaper than competing modes, but the Joydebpur Railway Station is too small and the siding is not long enough to receive a Unit Train.

3.4.3B Movements by rivercraft are at comparatively attractive rates, but the restricted draft in the dry season severely limits the utility of the mode.

3.4.3C Trucking is cheapest for the short haul to Narsingdi. If Ghorasal were connected by a shorter road route to Joydebpur, instead of the long route via Demra, warehouses at Joydebpur, Mirzapur, Tangail and Madhupur would be conveniently supplied by road from Ghorasal.

3.4.4 Movements from Fenchuganj

Table 3-10

Rail is the only mode of transportation to be relied upon year round. During the dry season there is severe river draft restriction; and during the wet season the current is too strong and turbulent to allow barge movements. The connecting road, to Sylhet, is motorable only during the dry season as it is not paved.

(*) World Bank Aide Memoire.

Table 3-10A

3.4.4A There is no competition with rail service out of Fenchuganj. River and road transportation are not realistic options in this area served well by rail.

3.4.5 Movements from Ashuganj

Table 3-11

At Ashuganj an additional 60 wagon siding will be built just outside the main plant gate on the existing spur line, to reduce the shunting distance required to form up unit trains.(*) The plant loadout facilities were designed to permit some 75% of the urea to be shipped by river. Three barges can be loaded simultaneously, fed by a conveyor belt system. The river is navigable throughout the year. Provisions are also to be made at the plant storage facility for delivery of fertilizer to truck loading docks.

Table 3-11A

3.4.5A Direct Rail shipments to the Northwest from Ashuganj are most economical when compared to alternatives which involve transhipments to other modes with delays and costs attendant to the necessary rehandling.

3.4.5B The river route is cheaper for shipments ex-Ashuganj to other destinations east of the Brahmaputra such as Chittagong, Narayanganj/Demra, Kuliarchar, Chandpur and Narsingdi, even though rail shipments could also be made. Bhairab, on the opposite bank of the river from the Ashuganj Plant, can be supplied by country boats.

3.4.5C The main problem in generating any significant truck traffic out of Ashuganj is the narrow underpass at the railway viaduct near the depot. Not only is the road very constricted at this point but it is usually conjested with rickshaws and train passengers coming down the steps from the depot.

If an alternative truck route to Brahmanbaria existed it could be well used. Currently this constraint limits truck traffic to Brahmanbaria. No other destinations are conveniently served by truck.

3.4.6 Movements from Shiromoni

Table 3-12

Shiromoni has good road access and no river draft restrictions for barge movements. A BG railway siding to this site will facilitate fertilizer movements to the Northwest. Shiromoni is the principal rail and road transit shipment point to supply

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(*) World Bank Aide Memoire.

the Southwest and Northwest sectors of the country with imported (TSP & MP) fertilizer. Shiromoni will be the origin point for operation of unit/block trains on the broad gauge system serving Northwest districts, and will become the most important transit station in the fertilizer distribution system once this train service is in operation. At Shiromoni 60 wagons will be accomodated alongside the new and existing warehouses. Receiving supplies by barge from Chalna and loading the unit trains for delivery to the Northwest will be a large scale, full time activity at Shiromoni.

Table 3-12A

3.4.6A The institution of unit train service should have an effect on BR's freight rates to Jessore, Kushtia and the Northwest, which at present are higher than road transport rates to all points south of Muladuli.

3.4.6B Road movement contract rates to the Jessore-Kushtia area appear unrealistically low when compared to railway freight movement costs, by mode, to these short-haul destination points may point the way to the most economic fertilizer delivery system.

3.4.7 Modal Transfer Points

Table 3-13

Until Demra is developed all fertilizer to supply the PDPs at Savar, Manikganj, Joydebpur, Mirzapur and Tangail will be transferred from barge to truck at Narayanganj. Later this transfer will take place at Demra. The Madhupur warehouse will receive its fertilizer from the railhead at Mymensingh, with the Mymensingh warehouse serving as a transit. Similarly, Sherpur will be supplied by truck via Jamalpur railhead and PDP warehouse. Ullapara will be supplied from Baghabari, Pabna and Kushtia from Muladuli, rather than by road from Shiromoni. Rajbari will be supplied from barges offloading at Tepakhola ghat. Chhatak, if developed, will be a transit point from rail to river for fertilizer destined to Jamalganj & Sunamganj.

3.5 Selection of Transportation Mode

The selection of an appropriate transportation mode for fertilizer movements to each PDP warehouse depends on the location of the PDP and the transportation facilities available to reach that location. Consideration must then be given to such factors as comparative cost structures, topographical and seasonal constraints, shipping facilities at the source, receiving facilities at destination and expectations of future conditions (planned rail lines, petrol costs, etc.).

3.5.1 Availability

A. Unit Trains/Block Trains

These trains will operate from Ghorasal and Ashuganj on the MG System and Shiromoni on the BG System. The World Bank is funding a project under which 600 freight wagons (225 BG + 375 MG) are to be rehabilitated at the Saidpur workshop for the exclusive use in Unit Trains dedicated to fertilizer transportation.(*) Normal train service will continue to be provided by BR, on a booking basis, for movements from Chittagong, Fenchuganj, Santahar (BG & MG) and Parbatipur (BG & MG). Freight wagon turn-around time in Unit Train operations is estimated, by the World Bank, at 4 days. This compares to the typidal 20.9 days turnaround on MG system and 31.7 days on BG system in 1978-79.(**)

B. Water Transport

In 1973 waterborne transport carried 6.412 million tons of cargo. By 1979 it had dropped to 5.142 million tons. In 1985 water transport cargo capacity is projected to be 6.6 million tons, against a projected demand of only 5.84 million tons.(***)

C. Road Transport

Road transport is wholly in the hands of the private sector, and its availability for specific movements depends on the rates which operators can negotiate. Rates must provide a reasonable return on investment, which provides incentive for reliability of operations. Unsatisfactory rates are an open invitation for bad service, including losses in transit, which are inimical to BADC's interests.

3.5.2 Cost

The analysis of contracted rates have not taken into consideration transit losses, fertilizer damage and the transit time cost (if any to BADC). Generally the least cost mode is recommended for use except where unresolved constraints exist. When the pure cost statistics are inadequate to give a true comparison between modes, a judgement is made.

(*) World Bank Aide Memoire
(**)THE SECOND FIVE YEAR PLAN 1980-85; Planning Commission, Dacca, May 1980, pg. XV-16 Table 15.8
(***)Ibid, pg.XV-3 & XV-4, Tables 15.1, 15.2 & 15.3

3.5.3 Second Five Year Plan (SFYP)

The projections given by the SFYP are as follows:(*)

Movement of Fertilizers By Mode in 1985	Million Tons	Total 1985 Movement of Commodities Million Tons	Transport Capacity in Million Tons
By Road	0.18	2.27	18.0
By Rail	1.40	4.68	6.5
By Waterway	0.68	5.84	6.6
Total	2.26	12.79	31.1

This data projects sufficient transport capacity under the SFYP to meet projected fertilizer movements.

3.5.4 Seasonal Constraints

The dry season, in particular, affects the movement of fully load barges out of Ghorasal because of insufficient river draft. Dry season barge movements out of Ghorasal will be suspended except to supply the Kaliganj PDP, which is only a few miles downstream and can be serviced by half loaded barges. Other waterways also have insufficient draft to permit barges to reach PDP locations, and transfers to small cargo launches or small boats may be necessary. During the wet season, rivers can become ferocious and often wash away river banks. For this reason certain PDP locations which normally receive fertilizer by barge must be located up to a few miles inland from the river.

3.5.5 Effect of Fuel Price Increases

Trucking movement costs are directly related to fuel costs. Truck cartage on longer routes will eventually come under critical examination as costs increase, with a view to shifting to rail transport, if available. The recent 45.29% fuel price hike is not reflected in the rates used in the transportation cost study, although the nature of its impact is considered.

3.5.6 Losses In Transit

Transit losses of fertilizer can be reduced considerably with the introduction of Unit Trains, which will have sidings next to the Warehouses within a secured area. Of major importance is how well BADC's interest is protected by the carrier and how effectively he implements his security program.

(*) SFYP. pg.XV-4 Table 15.2, 15.3

4.0 SYSTEM STRUCTURE

This section considers the various types of fertilizer used in Bangladesh and identifies sources and movement patterns, taking as parameters the 1985 sales projection targets and the logistical constraints detailed in Section 3.

4.1 Local Fertilizer Production

Projected urea production at the three local factories in 1985 is as follows:

Ashuganj	475,000 tons per year
Ghorasal	350,000 tons per year
Fenchuganj	75,000 tons per year

A proposed Chinese-funded urea production project is not finalized and is not considered in the NFSP. Assuming these targets can be met, Bangladesh will still need to import 140,000 tons of urea in 1985. If one takes into account of any down time at the urea plants, the 1985 imports will exceed 140,000 tons.

4.1.1 The Ghorasal plant is now operating at less than full capacity due to an offtake rate lower than production rate. A critical shortage of storage space and dry season river draft restrictions force this situation, which will be alleviated when unit trains operate from Ghorasal.

There is no seasonal variation in production capacity. The constraint is BADC's ability to lift fertilizer and the timing of the shut down of the urea plant for maintenance and repairs. There is sufficient land for future expansion at Ghorasal.

The Ashuganj site has no river draft restriction. Bagged storage capacity is about 6 days production; 1600 tons per day, or 9600 tons. BADC's ability to lift fertilizer is very good with the use of all the three modes of transportation. Although yet to start production, stable monthly production levels of slightly less than 20,000 tons with no seasonal variation, is assumed.

The Fenchuganj urea plant will probably be closed in 1990 when the Chinese-funded urea plant starts production. The location of Fenchuganj is such that it has to rely strictly on rail service to lift fertilizer.

4.1.2 The TSP Plant at Chittagong is projected to produce 120,000 tons of TSP in 1985. The present production capacity is affected by BADC's ability to take delivery

of bagged fertilizer from the plant and store it elsewhere. The bagged storage capacity is minimal, holding only a few days production which varies from 300 tons to 500 tons per day. A vacant plot of land next to the TSP Plant may be used for construction of a portable bagging plant and more storage space.

The production cost of TSP is currently higher than the cost to import product. The possible conversion of the TSP Production Plant to a Bagging Plant Complex for imported fertilizer has been suggested, and may be under consideration for implementation.

4.2 Imported Fertilizer

To meet projected 1985 sales targets, BADC will have to import Urea, TSP and MP to fill short-falls in local production of Urea and TSP.

4.2.1 Urea imports for 1985 are estimated at 140,000 tons. Imports may not have to continue after the proposed Chinese Urea Plant project is in production.

4.2.2 TSP imports for 1985 are estimated at 620,000 tons. Shipments from donor countries are anticipated to make up a large part of this requirement, and careful scheduling of purchases and shipments is necessary to achieve this objective.

4.2.3 All MP fertilizer is to be imported, and careful planning in scheduling receipt and handling of incoming shipments is required.

4.2.4 In previous planning, a 5 month buffer stock plan was suggested as necessary to prevent up-country shortages of fertilizer during slack periods in deliveries from overseas. The management of such a stocking plan is complicated by present-day problems in making shipments out of the receiving ports to the up-country warehouses (i.e.: lack of available transport at crucial times); and the lack of sufficient warehouse capacity throughout the system to store great amounts of buffer stock.

Under the NFSP, the PDP locations have been selected considering ease and convenience of access for supply and for sales. Should a 5 month buffer stock plan for imported fertilizer (only) be implemented, the requirement for storage (1985) would be:

258,000 tons TSP

104,000 tons MP

217,000 tons Urea (for 2½ months sales)

579,000 tons storage capacity required.

Existing PDP warehouse storage capacity is less than 150,000 tons. If the presently planned storage facility programs are added (nominally another 173,000 tons), there remains a substantial shortfall of 256,000 tons storage facilities.

Other aspects which weigh against attempting to provide a full five month buffer stock include the following:

(a) full implementation of NMS will concentrate inventories in fewer locations, with better accessibility for restocking;

(b) domestic production of Urea will reduce the present absolute reliance on arrival schedules of shipments.

(c) rail transport system improvements will facilitate a more adequate, smooth flow of fertilizers, out of the port areas to the upcountry warehouses.

The buffer stock under the NFSP varies from two to four months at the district level. This is judged to be adequate, given the replenishment capability that is to be available in 1985,

4.2.5 Portable bagging facilities are under consideration for funding by USAID at the Chalna and Chittagong Ports. This will enable Bangladesh to import more bulk fertilizer at less unit cost than for bagged product.

4.2.6 Scheduling of import shipments to meet seasonal demands, or at least smooth out the import flow, is an important objective; and to the extent that this is possible, management of the import schedule should have important attention.

4.2.7 Local production of TSP relies on the importation of raw materials, including rock phosphate and sulphur. Studies indicate that it may be more economical to import TSP, rather than produce it. The prospect is that BADC will continue to rely on imports to meet the TSP and MP requirements.

4.3 Fertilizer Movement Plan

The transportation facilities (rail, road and river) shown on the movement plans have been selected considering the various constraints discussed in Section 3.0. The projected sales by product (Urea, TSP and MP) at each PDP are shown for the dry season and for the wet season. The TSP and MP Movement Plans show the overall picture on one map for one season. However, for the Urea Movement Plan, there are many sources involved; it is necessary to split up the sources in presenting the information, to provide a clearer picture.

4.3.1A Urea from Ashuganj (Dry Season)

Table 4-1

Exhibit 4.3.1A

Because of severe river draft restrictions at Ghorasal, Ashuganj urea production must supply riverine PDP locations; 132,210 tons or 55.66% of its dry season production is taken up by barges. The unit train service takes 92,282 tons or 38.86% of product; of this, 58,933 tons will cross the Jamuna River on the Rail Wagon ferry. The balance, 13,008 tons or 5.48% will be trucked to Brahmanbaria.

4.3.1B Urea from Ashuganj (Wet Season)

Table 4-2

Exhibit 4.3.1B

Imported urea shipments are to be scheduled to meet the dry season demand and, accordingly, no imports are anticipated during the wet season. Ashuganj, in the wet season, will meet urea requirements of those PDPs that in the dry season receive from import sources. Coasters or barges will bring urea to Shiromoni for redistribution by road. A Unit Train to Chittagong moves urea which is then carried by truck to PDPs or transhipped by coaster to Cox's Bazar. The riverine PDPs are divided between Ghorasal and Ashuganj, with the latter serving mostly the Southern and Eastern sectors. Unit Trains are committed for 134,290 tons or 56.54% of Ashuganj's output. These will serve areas from the Northwest to Chittagong. Barges ship 94,498 tons or 39.79% of production capacity. The balance of 8,712 tons or 3.67% is taken by truck to Brahmanbaria.

4.3.2A Urea from Ghorasal (Dry Season)

Table 4-3

Exhibit 4.3.2A

Barges being constrained by river draft restrictions, the unit trains at Ghorasal will move 164,034 tons or 93.73% of the production capacity. The Unit Train moves as far east as Comilla, as far south as Muladuli, as far west as Rohanpur and as far north as Mahendranagar. The rail wagon ferry will have to carry across 116,130 tons of urea from Ghorasal during the dry season. Barge movements are insignificant; the Kaliganj PDP downstream may be supplied with half loaded barges or by country boats. Trucks will move urea to Narsingdi.

4.3.2B Urea from Ghorasal (Wet Season)

Table 4-4

Exhibit 4.3.2B

Barges will move urea to PDPs in Dacca, Faridpur and Pabna Districts which are accessable by water. The barges' share of the freight is 50,151 tons or 28.65% of Ghorasal's production capacity. Unit Trains are committed for only 120,164 tons or 68.67% of production capacity, satisfying a major portion of the Northwest sector urea requirements. Road movements take a small share, 4,705 tons or 2.68%.

4.3.3A Urea from Fenchuganj (Dry Season)

Table 4-5

Exhibit 4.3.3A

Urea requirements for Sylhet District (except for Azmiriganj) are supplied from Fenchuganj by rail. The balance goes to Chaumuhani Railway Station and from there by truck to Chaumuhani PDP and Laksmipur PDP.

4.3.3B Urea from Fenchuganj (Wet Season)

Table 4-6

Exhibit 4.3.3B

As in the dry season, urea for Sylhet District (except for Azmiriganj) is supplied from Fenchuganj by rail. The balance goes to Chaumuhani Railway Station and from there is trucked to Chaumuhani PDP, Laksmipur PDP and Feni PDP.

4.3.4 Urea Imported at Chittagong Port (Dry Season)

Table 4-7

Exhibit 4.3.4

All ocean going vessels over 32,000 DWT must first anchor at the Chittagong outer anchorage and be lightered until the ship can clear the 24 foot draft restriction at Chittagong Port. In addition to the draft restriction, ships longer than 585 feet cannot negotiate the Gupta Bend in the Karnaphuli River. Entry into the Karnaphuli channel can be eliminated altogether by first lightering in the

anchorage at Chittagong, then proceeding to Chalna Port for final cargo discharge at dockside. The Pusur River imposes no restriction on length of ships, but has the same draft restriction as at Chittagong. By this procedure, 43% of imported fertilizer will be offloaded at Chittagong and the balance unloaded at Chalna.(*) Urea imported into Chittagong will move by rail to Comilla and Laksam, by barge to Hatiya and Sandwip, and by road to PDP warehouses in Chittagong District.

4.3.5 Urea Imported at Chalna Port (Dry Season)

Table 4-8

Exhibit 4.3.5

Shiromoni takes 49,262 tons or 61.73% of the imported urea at Chalna. This will be routed by road to various PDP warehouses in the Southwest Districts. The balance of the Chalna imports are barged directly to the nearby riverine PDPs and also on to Barisal.

4.3.6A TSP from Chittagong TSP Plant (Dry Season)

Table 4-9

Exhibit 4.3.6A

The Chittagong TSP plant has a rail siding which is not used for loadout. Its utilization would require extensive shunting, as a maximum of ten wagons could be loaded at one time. A preferable operation would involve trucking TSP several miles to the X- and Y-shed godowns where more extensive rail siding capacity is available. Train service to points North could start from area presenting no road traffic problem. Offloading from trucks could be made to the godowns or directly to wagons.

TSP must be moved regularly from the factory due to the acute shortage of storage space. Trucking is the most effective means of removing TSP from the factory; either to PDP's in the Chittagong District or to Feni; or moved for transhipment by rail to meet the requirements of Sylhet District (except Azmiriganj). The balance of the TSP will be shipped to Brahmanbaria and Comilla warehouses.

4.3.6B TSP from Chittagong TSP Plant (Wet Season)

Table 4-10

Exhibit 4.3.6B

Due to lower demand for TSP in the wet season many more PDPs in the Chittagong Division, particularly those served by rail and road from Chittagong, can be supplied from Chittagong's TSP Plant. Barge/Coaster movement to Cox's Bazar is possible, at considerable cost savings. Rail movements take up 37,902 tons or 63.17% of production capacity. To keep the TSP Plant working near capacity a close monitoring of available rail wagons is necessary in order to promote regular shipments.

(*) FERTILIZER IMPORT SYSTEMS. Feasibility Study Volume I Final Report prepared for BADC by SOROS Associates, April, 1979.

4.3.7A TSP Imported at Chittagong Port (Dry Season)

None of the TSP imported at Chittagong will be routed to the Northwest on the rail wagon ferry at Bahadurabad Ghat. However, TSP imports will supply east Bangladesh destinations via rail. Loading directly into rail cars at the site of the proposed bagging facilities would be a preferred operation. If rail cars are not immediately adjacent, truck transport for a short distance will be involved.

Table 4-11

Exhibit 4.3.7A

Some 85,921 tons of TSP will be moved by rail, which represents 51.88% of TSP imported at Chittagong. The balance, 79,706 tons or 48.12% of imported TSP, will be moved by barge or coaster to Sandwip, Hatiya, to various PDPs in Faridpur District, and to Baghabari; and from Chandpur upstream to PDPs in Dacca District as far upstream as Azmiriganj. The movement plan for imported TSP avoids truck movements out of the port, with associated documentation problems, and instead uses the rail sidings available for direct loading to wagons. Clearance formalities and documentation requirements for a single train are much simpler than for multiple truck shipments.

4.3.7B TSP Imported at Chittagong Port (Wet Season)

Table 4-12

Exhibit 4.3.7B

The wet season TSP Movement Plan closely follows that of the dry season except that, due to lessened demand, Madaripur, Bhola and part of Patuakhali can be supplied from Chittagong. Sandwip and Hatiya will not be supplied, due to sea conditions.

4.3.8A TSP Imported at Chalna Port (Dry Season)

Table 4-13

Exhibit 4.3.8A

Chalna is the gateway to western Bangladesh, and imported TSP will be moved to the Northwest by Unit Train from Shiromoni. For the relatively short hauls to Chuadanga and other Southwest region warehouses, truck transport will operate out of Shiromoni to supply them. The riverine PDP warehouses near Chalna will receive supplies of TSP directly from Chalna by barge. The balance of imported supplies will be barged to Demra/Narayanganj.

4.3.8B TSP Imported at Chalna Port (Wet Season)

Table 4-14

Exhibit 4.3.8B

The TSP Movement Plan assigns priority to meeting the requirements of the western side of Bangladesh. Secondarily, stock is barged east out of Chalna to PDP locations lying nearer to Chalna than to Chittagong. The balance goes to Patuakhali District.

4.3.9A MP Imported at Chittagong Port (Dry Season)

Table 4-15

MP imported at Chittagong is distributed similarly as imported TSP, except that the imported MP (64,647 tons into Chittagong) meets only the requirements for the Chittagong Division; Kishoreganj, Mymensingh and Jamalpur Districts, and parts of Tangail and Dacca Districts.

Exhibit 4.3.9A

Movements are by rail from Chittagong to Sylhet District on the eastern side, and Melandah in the central. None of the MP will cross the Jamuna River on the rail wagon ferry.

Movements by river from Chittagong serve riverine destinations in the Chittagong Division and Kuliarchar, Bhairab, Narsingdi and part of Demra's requirements in the Dacca Division.

Road movements are restricted to the Chittagong District and Feni PDP.

Rail takes up 37,111 tons or 57.40% of imports at Chittagong, river takes up 15,266 tons or 23.62% and the balance, taken by truck, is 12,270 tons or 18.98%.

4.3.9B MP Imported at Chittagong Port (Wet Season)

Table 4-16
Exhibit 4.3.9B

Wet season MP movement is similar to the dry season Movement Plan except for inclusion of additional riverine PDPs at Baghabari, Tepakhola, Sirajdikhan, Mirkadim and Kaliganj(Dacca).

4.3.10A MP Imported at Chalna Port (Dry Season)

Table 4-17

Exhibit 4.3.10A

Imported MP will be moved to the Northwest zone by Unit Train from Shiromoni. Trucks will serve some PDPs in the Southwest area, to the Kushtia District. Barges will move Imported MP to Demra, Kaliganj(Dacca), Sirajdikhan, Mirkadim, Baghabari and riverine PDPs in Faridpur, Barisal, Patuakhali, Khulna and Jessore Districts.

4.3.10B MP Imported at Chalna Port (Wet Season)

Table 4-18

Exhibit 4.3.10B

The Northwest zone and the western side of Bangladesh receive imported MP supplies from Shiromoni by Unit Train and by truck. Riverine PDPs nearer Chalna will receive MP supplies by barge. Some riverine PDPs such as Kaliganj(Dacca), Sirajdikhan, Mirkadim, Baghabari and Tepakhola will be supplied from Chittagong instead of Chalna during the wet season.

4.3.11 Summary of the Fertilizer Movement Plans

A. Unit Train Movements

Table 4-19

The Unit Train (U.T.) movements carrying Urea across the Jamuna River on the rail wagon ferry service (1985 volumes) are as follows:

Despatch From	Dry Season	Wet Season	Total
Ashuganj (Tons)	58,933	44,503	103,436
Ghorasal (Tons)	116,130	92,344	208,474
Total (Tons)	175,063	136,847	311,910
Ashuganj:			
No. of U.T. Trips	56	43	99
Ghorasal			
No. of U.T. Trips	111	88	199
Total: No. of U.T. Trips	167	131	298
Days Available	182	182	365
Ferry Service Utilization Rate	92%	72%	82%

The target ferry service capacity set up by the World Bank in its improvement financing plan is 300 trips per year or one westbound trip loaded plus one eastbound trip empties daily. The daily schedule must be adhered to in dry season, while wet season supply requirements are reduced.

Unit Trains out of Ashuganj, Ghorasal and Shiromoni will be utilized in movement of products in 1985 as follows:

Urea	510,770 Tons	or	49%
TSP	239,910 Tons	or	32%
MP	85,965 Tons	or	34%
Total	836,645		41%

B. Block Train Movements

Table 4-20

Block Trains originating at Chittagong, Fenchuganj, Santahar and Parbatipur will move major tonnage. The BG - MG transfer movements at Santahar and Parbatipur will be scheduled to complement the Unit Train movements bringing the supplies into the Northwest, and represent the most efficient method of trans-shipping and delivering incoming fertilizer to using PDP warehouses. A Block Train tonnages by product in 1985 are as follows:

Urea	201, 047 Tons	or	19%
TSP	299,635 Tons	or	40.5%
MP	103,605 Tons	or	41.5%
Total:	604,287 Tons		30%

It is essential to overall movement operations that Block Train service be instituted as a regularly scheduled reliable service. To achieve this reliability, utilization of equipment dedicated to the Block Train service should be arranged, particularly for the almost daily movements out of Santahar, Parbatipur and Chittagong warehouses.

C. Waterborne Movements

Table 4-21

Movements by water carrier originate at Chalna, Chittagong, Ashuganj, Ghorasal and Chhatak. The role of coasters, barges and country boats in the fertilizer movement program, by tonnages carried and percentages of total product tonnages (for 1985) are as follows:

Urea	380,531 Tons	or	37%
TSP	488,550 Tons	or	66%
MP	170,031 Tons	or	68%
Total:	1,038,112		51%

This high volume and substantial share of total movements bear out the relative importance of inland waterway transport in fertilizer movement planning. The lower cost of waterborne transport, in comparison to other modes, dictates that planning for operations utilize the water routes to the maximum feasible extent.

D. Road Movements

Table 4-22

Road Movements originating from Chittagong, Demra, Shiromoni, Ashuganj and Ghorasal account for 733,006 tons. Road movements by product, and percentage of product in 1985 are as follows:

Urea	214,604 Tons	or	21%
TSP	384,694 Tons	or	52%
MP	133,708 Tons	or	53.5%
Total :	733,006 Tons	or	36%

The percentage of total fertilizer moved by road is considerably higher when the numerous local transfers and shorthaul transhipments at other points are considered. Road movements play the key role where short distances are involved.

5.0 SYSTEM COMPONENTS

Under the New Marketing System (NMS), Primary Distribution Points (PDPs) are located so that they are accessible to dealers, enabling them to lift and sell fertilizer to the farmers. This creates a network of fertilizer outputs at strategic locations throughout Bangladesh. The decisions as to location, type of warehouses and storage capacity are examined here in detail as components of the Systems Model of the NFSP.

It is interesting to note early ideas formulated in the Project Paper(*) which states: "The major considerations for selection of the primary distribution points were (1) to locate them at the intersections of major transportation modes; and (2) to minimize their number; but (3) to select sufficient points such that the private sector can feasibly and economically transport fertilizer to the maximum of areas from one to another of the selected points." To locate PDPs on a transportation map of Bangladesh takes little effort. To make final site selections after this first iteration of the location process is much more difficult, involving the analysis of a myriad of real world facts and opinions.

5.1 Inventory of Existing Warehouses

An inventory of existing warehouses must be updated periodically to provide current information on gross storage capacity, fertilizer on hand and vacant storage space. These data facilitate actual periodic planning of fertilize movements. Only those existing warehouses to be used as PDPs are considered under the NFSP.

5.1.1 BADC's (Big. Intermediate & Transit) Warehouses

Table 5-1

Exhibit 5.1

Transit Warehouses presently located at Chittagong Port, Roosevelt Jetty and Narayanganj total 68,615 tons of storage capacity.(**) Under the NFSP, Roosevelt Jetty and Narayanganj transit warehouses are not suitably located and are dropped from consideration. Shiromoni will be used for transit and Demra for transit-cum-PDP.

At the District level, the Newsletter(**) reported a figure of 346,860 tons of Warehouse Capacity. Much of this capacity is in small godowns which are operating as Thana Sales Centers and are not to be used as PDP Warehouses. Subtracting this capacity from 346,860 tons gives the NFSP total warehouse capacity at the District level.

(*) BANGLADESH - Fertilizer Distribution Improvement I, USAID Project Paper No.AID/BAS-008, pg 23.

(**) BADC Monthly Fertilizer Newsletter, No.27 June 15, 1980, Appendix X.

5.1.2 Hard Core Program Warehouses

Table 5-1

Exhibit 5.1

Under the Hard Core Program, the Newsletter reported 15,200 tons of warehouse capacity completed. Most of this is at 400 ton warehouses not located for use as PDPs. However there are warehouses with 2,000 tons of storage capacity completed under this program which are considered for use as PDPs such as those at Shambhuganj, Bogra Kotwali and Tangail. Additionally there are under construction 25,000 tons of capacity at warehouses varying from 1,000 to 4,000 tons in various stages of completion. For the purpose of the NFSP, these warehouses when completed will be used as PDPs, except for Naogaon which will be converted to other use when Santahar warehouse is built. These godowns should be finished to relieve the present critical shortage of storage space.

5.1.3 USAID Loan (Phase I) Warehouses

Table 5-1

Exhibit 5.1

The BADC Monthly Newsletter reported nineteen Phase I warehouses completed, with storage capacities ranging from 500 tons to 3,000 tons, for a total of 18,000 tons of storage capacity. Only those warehouses designated for use as PDPs will be considered for the NFSP.

Nine other warehouses under construction vary from 500 Tons to 3,000 tons and would give BADC 9,500 tons of additional storage capacity when completed. Only those warehouses designated for use as PDPs will be considered for the NFSP.

5.1.4 Warehouses Acquired from Bangladesh Warehousing Corp. (BWC)

Table 5-1

Exhibit 5.1

BADC has acquired some warehouses from BWC for fertilizer storage. The capacities of these BWC warehouses are considered in the NFSP when they are designated for use as PDPs.

5.1.5 Internal BADC Warehouse Transfers

BADC's Seeds Division owns and constructs godowns for seed storage. Inter-departmental transfers sometimes occur and these godowns may be turned over for storing fertilizer. The reverse also happens. Only those godowns designated for PDP use will be considered in the NFSP.

5.1.6 Leased and Hired Godowns

Leased and hired godowns provide BADC with temporary storage until permanent facilities are built. The storage capacities of these godowns are not considered in the NFSP as they are temporary in nature. Also under this category are temporary sheds which may be erected speedily to create storage space. However, hired godowns, though not considered in the NFSP, will continue to operate as PDP at Rajapur where new construction is not planned.

5.1.7 Thana Stores or Thana Sales Centers (TSC)

These are usually small godowns of 200 to 400 tons capacity in remote areas. The operating costs of these TSC's are high, and it is not worthwhile to continue operating them when PDP's are operating. TSC's (and leased storage) may remain in service if demand exceeds projections as if construction is not completed on schedule. The implementation of the NMS usually results in closing down TSC's in certain areas. Storage capacities of these TSC's are not considered in the NFSP.

5.1.8 Uncompleted Godowns

Table 5-1

Exhibit 5.1

Uncompleted godowns at PDP locations where their storage capacities have been included in the NFSP must be completed in order to achieve the level of storage space needed under the NFSP.

5.1.9 Existing Godowns not Suitable for PDP Operation to be Abandoned

Existing godowns in certain PDP locales have been found unsuitable for use as PDP's for several reasons:

(a) Poor access, or no facilities for direct receipt of fertilizer, resulting in double handling, high cost, fertilizer damage and loss of fertilizer in transit.

(b) Location distant from the new warehouse which will have better facilities and location for receiving supplies and making sales. The anticipated drop in sales at the existing godown may justify closure, and organization of centralized management in one location. BADC plans to keep these existing godowns in operation for the time being, even though access is not good. However, their continued use should be reviewed when the new warehouses are built. Their storage capacities are included in the NFSP.

5.2 District Buffer Stock Plan

IFDC recommended a District Buffer Stock Plan with stocks varying from 2 to 4 months worth of the annual projected sales in a given District. The rationale for the difference in fertilizer stock levels between Districts is the varying degree of difficulty presently experienced in moving fertilizers to the different Districts. The Northwest was assigned a 4 month buffer stock level. The Chittagong District, being nearer to import sources and the TSP production plant, was assigned a two month buffer stock level. Higher stock levels give rise to higher requirements for storage capacity. The recommended stocks in the Buffer Stock Plan are included in calculations for storage capacity requirements at each PDP.

5.3 Buffer Stock Plan for Imported TSP and MP

The Buffer stock Plan at the District level includes holding inventories of imported TSP and MP. The originally conceived 5 month buffer stock level is now seem to be excessive, and actually unnecessary in view of the proposed improvements to the rail system operations (Unit/Block trains).

5.4 Storage Capacities at PDPs

Storage capacities at PDPs are related to the District Buffer Stock Plan. A Plan requiring higher minimum inventories would require more storage capacity at the PDPs.

5.4.1 Storage Criteria for PDP

Depending on the District, the storage needed at a PDP is calculated on a given number of months of inventory based on the projected annual fertilizer sales at the PDP. No adjustment is made for seasonal variations in sales.

5.4.2 Storage Criteria for Transit at PDP

PDPs holding fertilizer in transit for other PDPs are sized accordingly. The additional storage (transit capacity) is calculated at one month's projected annual fertilizer sales of the PDP, without adjustment for seasonal variations. This transit capacity is added to the PDP capacity to arrive at the PDP-cum-Transit warehouse size.

5.4.3 Storage Criteria for Transit Only

Two methods evolved in calculating the storage capacities of warehouses which provide only transit storage for fertilizer movements.

(1) Transit capacity calculated at one month's projected annual fertilizer sales of the PDPs receiving fertilizer from a given transit warehouse.

(2) Transit capacity derived from volume of deliveries and off-takes, including the study of the timing of arrival of deliveries and the frequency of off-takes. The difference is the storage space that must be created after allowing for a margin against unexpected arrivals.

Both methods have their merits. But whichever calculation is adopted, random situations against what is practical, it is prudent to avoid large investments in purely transit godown facilities. If arrivals are untimely, shipments onward to the PDP warehouses being served must be rescheduled and expedited as necessary to cope with the storage problem.

For the purpose of the NFSP, transit capacity criteria adopted is one month of the projected annual volume of fertilizer handled through the warehouse. This is an arbitrary criteria,selected as it is relatively conservative in terms of investment. The transit storage capacity available is the primary factor dictating fertilizer movements to be planned, scheduled and managed under the warehousing system.

5.5 Transit Warehouses

Table 5-3

Exhibit 5.5

Transit warehouses are located where required to facilitate transfers from one mode to another. The (temporary) storage capacity provided eliminates the need to intimately schedule and coordinate enroute trans-shipments, and provides necessary flexibility in the system of deliveries.

Transit warehouse locations, their projected storage capacities (1985) under the NFSP, and the added storage capacities presently proposed for initial construction (1981-82) are as follows:

Location of Transit Warehouse		Required (1985) Storage Capacity Under NFSP (Tons)	Proposed New Storage Capacity under 1981-82 Construction Programs (Tons)
F5	Chittagong Port	12,500	0
P3T	Chalna Port	48,000	22,500 (1)
P4T	Shiramoni	33,000	13,400 (2)
O5T	Parbatipur	8,500	12,000 (3)
J6T	Chhatak	1,000	1,000

Notes: (1) Tentative; dependents on available land.
(2) Add 7,500 ton existing warehouse, for a total of 20,900 tons of onsite warehouse storage.
(3) Size subject to review and adjustment.

5.6 PDP Cum Transit Warehouses

In addition to functioning for PDP sales, a half dozen warehouses are strategically situated to also serve as transit warehouses, supplying other PDPs. These are identified and summarised below:

Location of PDP cum Transit Warehouse		Required (1985) Storage Capacity Under NFSP (Tons)	Proposed New Storage Capacity Under 1981-82 Construction Program (Tons)
A1	Demra	10,500	15,000 (1)
C2	Mymensingh	7,500	3,000
C3	Jamalpur	4,500	6,000 (1)
M1	Santahar	28,000	16,000
N1	Muladuli	6,000	5,000
N3	Baghabari	7,000	4,000

Note: (1) Warehouse Sizes subject to review and adjustment.

5.7 PDP Warehouses

A total of 85 PDP Warehouse locations have been identified. The breakdown is as follows:

71 PDP's - Identified for new construction (Total 333,500 tons of new storage)

10 PDP's - Existing Warehouses to be operated to serve areas presently being supplied.

1 PDP - To be operated temporarily, pending completion of new warehouses.

3 PDP's - Existing warehouses to be operated and serve same area as a newly built PDP.

Total : 85

5.8 Warehouse Construction Planning

It has been necessary to anticipate the final results of these warehousing requirement studies, in order to advance the final engineering design and preparation contract drawings for construction of USAID-financed and IBRD-funded warehousing programs. The key decisions about warehouse sizes and dimensions to be scheduled for immediate construction were made in early May, 1980 by BADC and IECO in joint consultation with the participation and recommendations of IFDC and USAID.

Table 5-3

With 1985 NFSP PDP and Transit warehouse size requirements now identified in relation to transport system supply facilities, fertilizer sales projections and areas served by the individual warehouses, some modifications in warehouse size for immediate construction may be considered. It is intended that these will be considered in August, 1980 subsequent to publication of this (draft) NFSP, prior to finalization of documents for tender. Some additional adjustments in warehouse sizes may be considered following review of this (draft) NFSP.

At a few locations, the suitability of specific site properties for (future) construction of PDP warehouses will be critically reviewed with a view to resolving questions raised following field inspections by representatives of either BADC, USAID, or in one or two cases, IECO. The sites which will come under such review include the following:

A1 Demra - questions about warehouse size and transport operations remain.

A4 Kaliganj - question raised about suitable road access.

F5 Chittagong - The required additional transit warehouse capacity of 12,500 tons will be best developed in-port, possibly in conjunction with proposed bagging facilities. Rail sidings for direct loading from either ship or warehouse are essential.

J5 Sunamganj - warehouse building to be repositioned on-site to eliminate concerns about riverbank erosion.

L1 Rangpur -an additional site to be found for future development of a larger warehouse to meet 1985 sales requirements.

N5 Ullapara-a question about the most appropriate siting (road versus rail) has been raised.

A2 Savar - a question about suitability of the site for PDP operations has been raised.

6.0 SYSTEM IMPLEMENTATION

6.1 Site Selections

The location and selection of suitable sites for the PDP warehouses has been in progress since October 1979, when IECO's field investigations got underway. Basic preliminary information included a list of some 35 candidate locales to consider. Early reconnaisance trips for the purpose of site identification concentrated on properties already in BADC's possession, and then broadened to other sites identified by BADC's District Managers as likely properties for acquisition and development.

As the advantages, and constraints, of the existing modes in the transportation system were identified and assessed during fertilizer movements studies, particular warehouse supply/resupply requirements were established. Requisites for transportation access, the plot size to accommodate needed warehouse capacity, and the functional requirements for operation of PDP warehouses and/or transit facilities, were determined upon in advance of site visits; and suitable sites sought, generally and typically in company with BADC's Headquarters-based and District Storage Managers.

An important aspect of the site selection process concerned the emergence of access to rail transport as a prime consideration in efficient functioning of the fertilizer movement system. The potential (and actual) availability of railroad land at over thirty locations was accordingly investigated in company with Bangladesh Railways Divisional representatives and many sites were selected for their availability for acquisition and supply by rail.

6.2 Land Acquisition

As the result of the operational need to make major use of rail wagons and water transport vessels to keep warehouses supplied year round, some thirty three new construction sites are on railway land and three others are situated on, or make use of, land under control of various Waterways and Port Authorities. These properties can be leased, and the acquisition process presents no particular problems to BADC, except for the time involved in finalizing Lease terms.

Acquisition of private lands is in some instances, a lengthy process for BADC. It is important to proceed with acquisition of the properties selected and recommended, as these will then become available for site construction during an earlier stage of System Construction under the NFSP.

6.3 Land Plans

Land Plans have been developed for the acquisition of all properties required to construct NFSP warehouses throughout Bangladesh. These Land Plans are included in Volume IV of the NFSP; presented in a limited number of copies, for reference and record.

NFSP REF. **PDP CUM TRANSIT WAREHOUSE LOCATION**
A1 DEMRA

1.0 INVENTORY OF EXISTING WAREHOUSES

		Storage Capacity	No.of Units	Category
1.1	Constructed Warehouse	NIL		
1.2	Warehouse under construction	NIL		
1.3	Total	NIL		

1.4 Remarks : Existing godowns are leased/hired godowns at M.M. Oil Mills and are not considered in NFSP. Have to rely on Narayanganj facilities until Demra is built.

2.0 NFSP REQUIREMENTS

2.1	New Storage Capacity Needed	10.500 Tons (including 7000 Tons transit capacity)		
2.2	Storage Capacity for Construction	15 000 Tons		
2.3	Source of Supply:	Urea	TSP	MP
	2.3.1 Dry Season	Ashuganj	Ctg. & Chalna	Ctg. & Chalna
	2.3.2 Wet Season	Ghorasal	Ctg. & Chalna	Ctg. & Chalna
2.4	Major Mode of Delivery:	Urea	TSP	MP
	2.4.1 Dry Season	Barge	Barge	Barge
	2.4.2 Wet Season	Barge	Barge	Barge
2.5	Minor Mode of Delivery:	Coasters, Cargo Launch		
2.6	Mode of Offtake:			
	2.6.1 Major Mode	Truck		
	2.6.2 Minor Mode	Country Boat		
	2.6.3 Occasional Mode	Bullock Cart & Rail		

3.0 SITE SELECTION

3.1	Ownership	BADC-owned Property
3.2	Land Area	11.5 Acres
3.3	Site Operations	
	3.3.1 Receiving fertilizer	Barge/Coaster
	3.3.2 Offtake of fertilizer	Primarily Truck, Occassional Rail
3.4	Site Development Required:	Pontoons for barge landing facilities. Access road on Railway Right of way to connect site to main highway. Site filling above flood levels. No rail siding facilities required.

NFSP REF.	POP WAREHOUSE LOCATION
A2 .	SAVAR

1.0 INVENTORY OF EXISTING WAREHOUSES

		Storage Capacity	No.of Units	Category
1.1	Constructed Warehouse	400 Tons	1	Additional
1.2	Warehouse under construction	0		
1.3	Total	400 Tons		
1.4	Remarks			

2.0 NFSP REQUIREMENTS

2.1	New Storage Capacity Needed	2 500 Tons		
2.2	Storage Capacity for Construction	2 000 Tons		
2.3	Source of Supply:	Urea	TSP	MP
2.3.1	Dry Season(via Demra)	Ashuganj	Chittagong	Chittagong
2.3.2	Wet Season(via Demra)	Ghorasal	Chittagong	Chittagong
2.4	Major Mode of Delivery:	Urea	TSP	MP
2.4.1	Dry Season (From Demra)	Truck	Truck	Truck
2.4.2	Wet Season (From Demra)	Truck	Truck	Truck
2.5	Minor Mode of Delivery:	N/A		
2.6	Mode of Offtake:			
2.6.1	Major Mode	Truck		
2.6.2	Minor Mode	Bullock Cart		
2.6.3	Occasional Mode	Country Boat		

3.0 SITE SELECTION

3.1	Ownership	Government Khas Land
3.2	Land Area	3.85 Acres
3.3	Site Operations	
3.3.1	Receiving fertilizer	Truck
3.3.2	Offtake of fertilizer	Truck & Bullock Cart
3.4	Site Development Required:	Access to main road, and access to river for offtake by country boat. Fill required.

NFSP REF. PDP WAREHOUSE LOCATION

A3 JOYDEBPUR

1.0 INVENTORY OF EXISTING WAREHOUSES

		Storage Capacity	No.of Units	Category
1.1	Constructed Warehouse	500 Tons	1	USAID Phase I
1.2	Warehouse under construction	0		
1.3	Total	500 Tons		

1.4 Remarks: To be integrated with new warehouse for better access to main highway.

2.0 NFSP REQUIREMENTS

2.1	New Storage Capacity Needed	2 000 Tons		
2.2	Storage Capacity for Construction	3 000 Tons		
2.3	Source of Supply:	Urea	TSP	MP
	2.3.1 Dry Season (via Demra)	Ashuganj	Chittagong	Chittagong
	2.3.2 Wet Season (via Demra)	Ghorasal	Chittagong	Chittagong
2.4	Major Mode of Delivery:	Urea	TSP	MP
	2.4.1 Dry Season (From Demra)	Truck	Truck	Truck
	2.4.2 Wet Season (From Demra)	Truck	Truck	Truck
2.5	Minor Mode of Delivery:	N/A		
2.6	Mode of Offtake:			
	2.6.1 Major Mode	Truck		
	2.6.2 Minor Mode	Bullock Cart		
	2.6.3 Occasional Mode	N/A		

3.0 SITE SELECTION

3.1	Ownership	Private Land
3.2	Land Area	2.66 Acres
3.3	Site Operations	
	3.3.1 Receiving fertilizer	Truck
	3.3.2 Offtake of fertilizer	Truck & Bullock Cart
3.4	Site Development Required:	New warehouse to be integrated with existing warehouse for common usage of existing facilities and design for better access to main highway.

NFSP REF. PDP WAREHOUSE LOCATION

A4 KALIGANJ

1.0 INVENTORY OF EXISTING WAREHOUSES

		Storage Capacity	No.of Units	Category
1.1	Constructed Warehouse	400 Tons	1	Additional
1.2	Warehouse under construction	0		
1.3	Total	400 Tons		

1.4 Remarks : Existing warehouse has no direct access to river and is away from the site of the new warehouse.

2.0 NFSP REQUIREMENTS

2.1	New Storage Capacity Needed	2 000 Tons		
2.2	Storage Capacity for Construction	2 000 Tons		
2.3	Source of Supply:	Urea	TSP	MP
	2.3.1 Dry Season	Ghoraseal	Chittagong	Chittagong
	2.3.2 Wet Season	Ghoraseal	Chittagong	Chittagong
2.4	Major Mode of Delivery:	Urea	TSP	MP
	2.4.1 Dry Season	Barge/Boat	Barge	Barge
	2.4.2 Wet Season	Barge	Barge	Barge
2.5	Minor Mode of Delivery:	Urea by Country Boat, TSP by Barge		
2.6	Mode of Offtake:			
	2.6.1 Major Mode	Country Boat		
	2.6.2 Minor Mode	Bullock Cart		
	2.6.3 Occasional Mode	N/A		

3.0 SITE SELECTION

3.1	Ownership	Land abandoned by owner
3.2	Land Area	1.92 Acres
3.3	Site Operations	
	3.3.1 Receiving fertilizer	Country Boat/Barge
	3.3.2 Offtake of fertilizer	Country Boat & Bullock Cart.
3.4	Site Development Required:	Demolition of disused sugar mill.Access facilities to river for barge delivery and country boat offtake.

NFSP REF. PDP WAREHOUSE LOCATION

A5 NARSINGDI

1.0 INVENTORY OF EXISTING WAREHOUSES

		Storage Capacity	No.of Units	Category
1.1	Constructed Warehouse	500 Tons	1	Big & Inter
		400 Tons	1	Hardcore
1.2	Warehouse under construction	1 000 Tons	1	Ex-BWC
		0		
1.3	Total	1 900 Tons		

1.4 Remarks : The new warehouse site is next to the 1000 Ton Godown. The 500 Ton & 400 Ton Godowns are together in one location without river access and has poor road access. May have to consider abandoning these two small godowns when new warehouse is built.

2.0 NFSP REQUIREMENTS

2.1	New Storage Capacity Needed	2 000 Tons		
2.2	Storage Capacity for Construction	3 000 Tons		
2.3	Source of Supply:	Urea	TSP	MP
	2.3.1 Dry Season	Ghorasal	Chittagong	Chittagong
	2.3.2 Wet Season	Ghorasal	Chittagong	Chittagong
2.4	Major Mode of Delivery:	Urea	TSP	MP
	2.4.1 Dry Season	Truck	Barge	Barge
	2.4.2 Wet Season	Truck	Barge	Barge
2.5	Minor Mode of Delivery:	Coaster or Cargo Launch		
2.6	Mode of Offtake:			
	2.6.1 Major Mode	Truck		
	2.6.2 Minor Mode	Country Boat		
	2.6.3 Occasional Mode	Bullock Cart		

3.0 SITE SELECTION

3.1	Ownership	Private Land (Next to Ex-BWC Godown)
3.2	Land Area	4.08 Acres
3.3	Site Operations	
	3.3.1 Receiving fertilizer	Barge & Coaster
	3.3.2 Offtake of fertilizer	Truck, Country Boat & Bullock Cart.
3.4	Site Development Required:	No land fill required. Pontoon facilities for barges. Access road to connect site to main highway. Can integrate with Ex-BWC warehouse for sharing common facilities.

NFSP REF. **PDP WAREHOUSE LOCATION**

A6 MANIKGANJ

1.0 INVENTORY OF EXISTING WAREHOUSES

		Storage Capacity	No.of Units	Category
1.1	Constructed Warehouse	0		
1.2	Warehouse under construction	1 000 Tons	1	USAID Phase I
1.3	Total	1 000 Tons		

1.4 Remarks: Godown when completed will operate as PDP. No further new construction planned.

2.0 NFSP REQUIREMENTS

2.1	New Storage Capacity Needed	500 Tons		
2.2	Storage Capacity for Construction	NIL		
2.3	Source of Supply:	Urea	TSP	MP
	2.3.1 Dry Season (via Demra)	Ashuganj	Chittagong	Chittagong
	2.3.2 Wet Season (via Demra)	Gharasal	Chittagong	Chittagong
2.4	Major Mode of Delivery:	Urea	TSP	MP
	2.4.1 Dry Season (From Demra)	Truck	Truck	Truck
	2.4.2 Wet Season (From Demra)	Truck	Truck	Truck
2.5	Minor Mode of Delivery:	N/A		
2.6	Mode of Offtake:			
	2.6.1 Major Mode	Truck		
	2.6.2 Minor Mode	Bullock Cart		
	2.6.3 Occasional Mode	N/A		

3.0 SITE SELECTION

3.1	Ownership	N/A
3.2	Land Area	N/A
3.3	Site Operations	N/A
	3.3.1 Receiving fertilizer	N/A
	3.3.2 Offtake of fertilizer	N/A
3.4	Site Development Required:	N/A

NFSP REF. POP WAREHOUSE LOCATION

A7 . SIRAJDIKHAN

1.0 INVENTORY OF EXISTING WAREHOUSES

		Storage Capacity	No.of Units	Category
1.1	Constructed Warehouse	0		
1.2	Warehouse under construction	1 000 Tons	1	USAID Phase I
1.3	Total	1 000 Tons		

1.4 Remarks : Godown when completed will operate as PDP. Nor further new construction planned.

2.0 NFSP REQUIREMENTS

2.1	New Storage Capacity Needed	1 000 Tons		
2.2	Storage Capacity for Construction	NIL		
2.3	Source of Supply:	Urea	TSP	MP
	2.3.1 Dry Season	Ashuganj	Chittagong	Chittagong
	2.3.2 Wet Season	Ghorasal	Chittagong	Chittagong
2.4	Major Mode of Delivery:	Urea	TSP	MP
	2.4.1 Dry Season	Barge	Barge	Barge
	2.4.2 Wet Season	Barge	Barge	Barge
2.5	Minor Mode of Delivery:	N/A		
2.6	Mode of Offtake:			
	2.6.1 Major Mode	Truck		
	2.6.2 Minor Mode	Country Boat		
	2.6.3 Occesional Mode	Bullock Cart		

3.0 SITE SELECTION N/A

3.1	Ownership	N/A
3.2	Land Area	N/A
3.3	Site Operations	N/A
	3.3.1 Receiving fertilizer	N/A
	3.3.2 Offtake of fertilizer	N/A
3.4	Site Development Required:	N/A

NFSP REF. PDP WAREHOUSE LOCATION

A8 MIRKADIM

1.0 INVENTORY OF EXISTING WAREHOUSES

		Storage Capacity	No.of Units	Category
1.1	Constructed Warehouse	1 000 Tons	1	Big & Inter
1.2	Warehouse under construction	0		
1.3	Total	1 000 Tons		

1.4 Remarks: Existing godown will operate as PDP. No further new construction planned.

2.0 NFSP REQUIREMENTS

2.1	New Storage Capacity Needed	2 500 Tons		
2.2	Storage Capacity for Construction	NIL		
2.3	Source of Supply:	Urea	TSP	MP
2.3.1	Dry Season	Ashuganj	Chittagong	Chittagong
2.3.2	Wet Season	Ghoraseal	Chittagong	Chittagong
2.4	Major Mode of Delivery:	Urea	TSP	MP
2.4.1	Dry Season	Barge	Barge	Barge
2.4.2	Wet Season	Barge	Barge	Barge
2.5	Minor Mode of Delivery:	Truck		
2.6	Mode of Offtake:			
2.6.1	Major Mode	Truck		
2.6.2	Minor Mode	Bullock Cart		
2.6.3	Occasional Mode	Country Boat		

3.0 SITE SELECTION N/A

3.1	Ownership	N/A
3.2	Land Area	N/A
3.3	Site Operations	N/A
3.3.1	Receiving fertilizer	N/A
3.3.2	Offtake of fertilizer	N/A
3.4	Site Development Required:	N/A

NFSP REF. **PDP WAREHOUSE LOCATION**
B1 KISHOREGANJ

1.0 INVENTORY OF EXISTING WAREHOUSES

		Storage Capacity	No.of Units	Category
1.1	Constructed Warehouse	2000 Tons	1	Big & Inter
1.2	Warehouse under construction	0		
1.3	Total	2000 Tons		

1.4 Remarks : Existing warehouse has no rail siding facilities.

2.0 NFSP REQUIREMENTS

2.1	New Storage Capacity Needed	9 000 Tons		
2.2	Storage Capacity for Construction	4 000 Tons		
2.3	Source of Supply:	Urea	TSP	MP
	2.3.1 Dry Season	Ashuganj	Chittagong	Chittagong
	2.3.2 Wet Season	Ashuganj	Chittagong	Chittagong
2.4	Major Mode of Delivery:	Urea	TSP	MP
	2.4.1 Dry Season	Unit Train	Rail	Rail
	2.4.2 Wet Season	Unit Train	Rail	Rail
2.5	Minor Mode of Delivery:	N/A		
2.6	Mode of Offtake:			
	2.6.1 Major Mode	Truck, Bullock Cart.		
	2.6.2 Minor Mode	N/A		
	2.6.3 Occasional Mode			

3.0 SITE SELECTION

3.1	Ownership	
3.2	Land Area	
3.3	Site Operations	
	3.3.1 Receiving fertilizer	MG Rail
	3.3.2 Offtake of fertilizer	Truck & Bullock Cart.
3.4	Site Development Required:	Rail siding facilities. Road access($\pm$ 1200' long). Fill to raise platform above flood levels.

NFSP REF.	PDP WAREHOUSE LOCATION
B2	NETRAKONA

1.0 INVENTORY OF EXISTING WAREHOUSES

		Storage Capacity	No.of Units	Category
1.1	Constructed Warehouse	NIL		
1.2	Warehouse under construction	NIL		
1.3	Total	NIL		
1.4	Remarks			

2.0 NFSP REQUIREMENTS

2.1	New Storage Capacity Needed	4 500 Tons		
2.2	Storage Capacity for Construction	5 000 Tons		
2.3	Source of Supply:	Urea	TSP	MP
	2.3.1 Dry Season	Ashuganj	Chittagong	Chittagong
	2.3.2 Wet Season	Ashuganj	Chittagong	Chittagong
2.4	Major Mode of Delivery:	Urea	TSP	MP
	2.4.1 Dry Season	Unit Train	Rail	Rail
	2.4.2 Wet Season	Unit Train	Rail	Rail
2.5	Minor Mode of Delivery:	N/A		
2.6	Mode of Offtake:			
	2.6.1 Major Mode	Truck, Bullock Cart.		
	2.6.2 Minor Mode	Country Boat		
	2.6.3 Occasional Mode	N/A		

3.0 SITE SELECTION

3.1	Ownership	Railway Property
3.2	Land Area	4.50 Acres
3.3	Site Operations	
	3.3.1 Receiving fertilizer	MG Rail
	3.3.2 Offtake of fertilizer	Truck & Bullock Cart
3.4	Site Development Required:	Rail siding facilities. Road access. River access. Fill to raise platform above flood levels.

NFSP REF. **PDP WAREHOUSE LOCATION**

B3 JARIA

1.0 INVENTORY OF EXISTING WAREHOUSES

		Storage Capacity	No.of Units	Category
1.1	Constructed Warehouse	400 Tons	1	Additional
1.2	Warehouse under construction	0		
1.3	Total	400 Tons		
1.4	Remarks			

2.0 NFSP REQUIREMENTS

2.1	New Storage Capacity Needed	2 000 Tons		
2.2	Storage Capacity for Construction	2 000 Tons		
2.3	Source of Supply:	Urea	TSP	MP
2.3.1	Dry Season	Ashuganj	Chittagong	Chittagong
2.3.2	Wet Season	Ashuganj	Chittagong	Chittagong
2.4	Major Mode of Delivery:	Urea	TSP	MP
2.4.1	Dry Season	Unit Train	Rail	Rail
2.4.2	Wet Season	Unit Train	Rail	Rail
2.5	Minor Mode of Delivery:	N/A		
2.6	Mode of Offtake:			
2.6.1	Major Mode	Truck, Bullock Cart.		
2.6.2	Minor Mode	Country Boat		
2.6.3	Occasional Mode	N/A		

3.0 SITE SELECTION

3.1	Ownership	Railway Property
3.2	Land Area	10.99 Acres
3.3	Site Operations	
3.3.1	Receiving fertilizer	MG Rail
3.3.2	Offtake of fertilizer	Truck, Bullock Cart & Country Boat
3.4	Site Development Required:	Rail siding facilities. Road access. River access. Fill to raise platform above flood levels.

NFSP REF. **PDP WAREHOUSE LOCATION**

B4 **SARARCHAR**

1.0 INVENTORY OF EXISTING WAREHOUSES

		Storage Capacity	No.of Units	Category
1.1	Constructed Warehouse	2 000 Tons	1	Big & Inter.
1.2	Warehouse under construction	0		
1.3	Total	2 000 Tons		

1.4 Remarks: Existing warehouse to operate as PDP. No new construction planned.

2.0 NFSP REQUIREMENTS

2.1	New Storage Capacity Needed	1 500 Tons		
2.2	Storage Capacity for Construction	NIL		
2.3	Source of Supply:	Urea	TSP	MP
	2.3.1 Dry Season	Ashuganj	Chittagong	Chittagong
	2.3.2 Wet Season	Ashuganj	Chittagong	Chittagong
2.4	Major Mode of Delivery:	Urea	TSP	MP
	2.4.1 Dry Season	Unit Train	Rail	Rail
	2.4.2 Wet Season	Unit Train	Rail	Rail
2.5	Minor Mode of Delivery:	Truck		
2.6	Mode of Offtake:			
	2.6.1 Major Mode	Bullock Cart & Truck		
	2.6.2 Minor Mode	N/A		
	2.6.3 Occasional Mode	N/A		

3.0 SITE SELECTION

3.1	Ownership	N/A
3.2	Land Area	N/A
3.3	Site Operations	
	3.3.1 Receiving fertilizer	Rail
	3.3.2 Offtake of fertilizer	Truck, Bullock Cart.
3.4	Site Development Required:	N/A

NFSP REF. POP WAREHOUSE LOCATION

B5 KULIARCHAR

1.0 INVENTORY OF EXISTING WAREHOUSES

		Storage Capacity	No.of Units	Category
1.1	Constructed Warehouse	400 Tons	1	Additional
1.2	Warehouse under construction	2 000 Tons	1	Hardcore
1.3	Total	2 400 Tons		

1.4 Remarks : Existing warehouse to operate as POP. No new construction planned.

2.0 NFSP REQUIREMENTS

2.1	New Storage Capacity Needed	1 500 Tons		
2.2	Storage Capacity for Construction	NIL		
2.3	Source of Supply:	Urea	TSP	MP
	2.3.1 Dry Season	Ashuganj	Chittagong	Chittagong
	2.3.2 Wet Season	Ashuganj	Chittagong	Chittagong
2.4	Major Mode of Delivery:	Urea	TSP	MP
	2.4.1 Dry Season	Barge	Barge	Barge
	2.4.2 Wet Season	Barge	Barge	Barge
2.5	Minor Mode of Delivery:	Truck		
2.6	Mode of Offtake:			
	2.6.1 Major Mode	Country Boat, Bullock Cart		
	2.6.2 Minor Mode	Truck		
	2.6.3 Occasional Mode	N/A		

3.0 SITE SELECTION

3.1	Ownership	N/A
3.2	Land Area	N/A
3.3	Site Operations	
	3.3.1 Receiving fertilizer	Barge
	3.3.2 Offtake of fertilizer	Country Boat, Bullock Cart & Truck.
3.4	Site Development Required:	N/A

NFSP REF. **PDP WAREHOUSE LOCATION**

B6 BHAIRAB

1.0 INVENTORY OF EXISTING WAREHOUSES

		Storage Capacity	No.of Units	Category
1.1	Constructed Warehouse	400 Tons	1	Additional
1.2	Warehouse under construction 2 000 x 2=	4 000 Tons	2	Hardcore
1.3	Total	4 000 Tons		

1.4 Remarks : Existing warehouses to operate as PDP. No new construction planned.

2.0 NFSP REQUIREMENTS

2.1	New Storage Capacity Needed	1 500 Tons		
2.2	Storage Capacity for Construction	NIL		
2.3	Source of Supply:	Urea	TSP	MP
	2.3.1 Dry Season	Ashuganj	Chittagong	Chittagong
	2.3.2 Wet Season	Ashuganj	Chittagong	Chittagong
2.4	Major Mode of Delivery:	Urea	TSP	MP
	2.4.1 Dry Season	Country Boat	Barge	Barge
	2.4.2 Wet Season	Country Boat	Barge	Barge
2.5	Minor Mode of Delivery:	N/A		
2.6	Mode of Offtake:			
	2.6.1 Major Mode	Country Boat, Bullock Cart & Truck		
	2.6.2 Minor Mode	N/A		
	2.6.3 Occasional Mode	N/A		

3.0 SITE SELECTION

3.1	Ownership	N/A
3.2	Land Area	N/A
3.3	Site Operations	
	3.3.1 Receiving fertilizer	Barge/Country Boat
	3.3.2 Offtake of fertilizer	Country Boat, Bullock Cart & Truck.
3.4	Site Development Required:	N/A

NFSP REF. PDP WAREHOUSE LOCATION

C1 SHAMBHUGANJ

1.0 INVENTORY OF EXISTING WAREHOUSES

		Storage Capacity	No.of Units	Category
1.1	Constructed Warehouse	2 000 Tons	1	Hardcore
1.2	Warehouse under construction	0		
1.3	Total	2 000 Tons		

1.4 Remarks: Existing warehouse has no rail siding facilities.

2.0 NFSP REQUIREMENTS

2.1	New Storage Capacity Needed	4 000 Tons		
2.2	Storage Capacity for Construction	4 000 Tons		
2.3	Source of Supply:	Urea	(TSP +	MP)
2.3.1	Dry Season	Ashuganj	Chittagong	
2.3.2	Wet Season	Ashuganj	Chittagong	
2.4	Major Mode of Delivery:	Urea	TSP	MP
2.4.1	Dry Season	U.T.Rail	N.T. Rail	N.T. Rail
2.4.2	Wet Season	U.T.Rail	N.T. Rail	N.T. Rail
2.5	Minor Mode of Delivery:	N/A		
2.6	Mode of Offtake:			
2.6.1	Major Mode	Truck, Bullock Cart		
2.6.2	Minor Mode	Country Boat		
2.6.3	Occasional Mode			

3.0 SITE SELECTION

3.1	Ownership	Private Property
3.2	Land Area	3.03 Acres
3.3	Site Operations	
3.3.1	Receiving fertilizer	MG Rail(Unit Train & Normal Train)
3.3.2	Offtake of fertilizer	Truck, Bullock Cart & Country Boat.
3.4	Site Development Required:	Rail siding facilities. Road access to highway. Fill to raise platform above flood levels.

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NFSP REF. PDP CUM TRANSIT WAREHOUSE LOCATION

C2. MYMENSINGH

1.0 INVENTORY OF EXISTING WAREHOUSES

		Storage Capacity	No.of Units	Category
1.1	Constructed Warehouse	2 000 Tons	1	Big & Inter.
		200 Tons	1	Additional
1.2	Warehouse under construction	0		
1.3	Total	2 200 Tons		

1.4 Remarks : New warehouse site is integrated with existing warehouse. Due to site limitations only 3000 Tons can be built. PDP serves also as transit for Madhupur.

2.0 NFSP REQUIREMENTS

2.1	New Storage Capacity Needed	7 500 Tons (including 2000 Tons transit capacity)		
2.2	Storage Capacity for Construction	3 000 Tons		
2.3	Source of Supply:	Urea	(TSP +	MP)
	2.3.1 Dry Season	Ghorasal	Chittagong	
	2.3.2 Wet Season	Ghorasal	Chittagong	
2.4	Major Mode of Delivery:	Urea	TSP	MP
	2.4.1 Dry Season	U.T.Rail	N.T.Rail	N.T.Rail
	2.4.2 Wet Season	U.T.Rail	N.T.Rail	N.T.Rail
2.5	Minor Mode of Delivery:	N/A		
2.6	Mode of Offtake:			
	2.6.1 Major Mode	Truck		
	2.6.2 Minor Mode	Country Boat		
	2.6.3 Occasional Mode	Bullock Cart		

3.0 SITE SELECTION

3.1	Ownership	BADC's owned Land
3.2	Land Area	
3.3	Site Operations	
	3.3.1 Receiving fertilizer	MG Rail (Unit Train & Normal Train)
	3.3.2 Offtake of fertilizer	Truck
3.4	Site Development Required:	Road access to integrate with existing Warehouse complex. Integrate common facilities. Demolish buildings not required for new development scheme.

NFSP REF. **PDP CUM TRANSIT WAREHOUSE LOCATION**

C3 JAMALPUR

1.0 INVENTORY OF EXISTING WAREHOUSES

		Storage Capacity	No.of Units	Category
1.1	Constructed Warehouse	500 Tons	1	Big & Inter.
1.2	Warehouse under construction	1 000 Tons	1	Hardcore
1.3	Total	0 1 500 Tons		

1.4 Remarks : Serving also as transit for Sherpur PDP.

2.0 NFSP REQUIREMENTS

2.1	New Storage Capacity Needed	4 500 Tons (including 2000 Tons transit capacity)		
2.2	Storage Capacity for Construction	6 000 Tons		
2.3	Source of Supply:	Urea	(TSP +	MP)
2.3.1	Dry Season	Ghorasal	Chittagong	
2.3.2	Wet Season	Ghorasal	Chittagong	
2.4	Major Mode of Delivery:	Urea	TSP	MP
2.4.1	Dry Season	U.T.Rail	N.T. Rail	N.T. Rail
2.4.2	Wet Season	U.T.Rail	N.T. Rail	N.T. Rail
2.5	Minor Mode of Delivery:	N/A		
2.6	Mode of Offtake:			
2.6.1	Major Mode	Truck		
2.6.2	Minor Mode	Bullock Cart.		
2.6.3	Occasional Mode	Country Boat		

3.0 SITE SELECTION

3.1	Ownership	Railway + Private Property
3.2	Land Area	3.00 Acres + 2.44 Acres = 5.44 Acres
3.3	Site Operations	
3.3.1	Receiving fertilizer	MG Rail (Unit Train & Normal Train)
3.3.2	Offtake of fertilizer	Truck and Bullock Cart
3.4	Site Development Required:	Rail sidings for receiving fertilizers and road access for offtake of fertilizers. Fill required.

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NFSP REF. PDP WAREHOUSE LOCATION

C4 MELANDAH

1.0 INVENTORY OF EXISTING WAREHOUSES

		Storage Capacity	No.of Units	Category
1.1	Constructed Warehouse	200 Tons	1	Additional
1.2	Warehouse under construction	0		
1.3	Total	200 Tons		

1.4 Remarks : Existing warehouse too small for PDP operation. To be abandoned when new warehouse is built.

2.0 NFSP REQUIREMENTS

2.1	New Storage Capacity Needed	5 000 Tons		
2.2	Storage Capacity for Construction	5 000 Tons		
2.3	Source of Supply:	Urea	TSP	MP
	2.3.1 Dry Season	Ghorasal	Chittagong	Chittagong
	2.3.2 Wet Season	Ghorasal	Chittagong	Chittagong
2.4	Major Mode of Delivery:	Urea	TSP	MP
	2.4.1 Dry Season	U.T. Rail	N.T. Rail	N.T. Rail
	2.4.2 Wet Season	U.T. Rail	N.T. Rail	N.T. Rail
2.5	Minor Mode of Delivery:	N/A		
2.6	Mode of Offtake:			
	2.6.1 Major Mode	Truck, Bullock Cart.		
	2.6.2 Minor Mode	N/A		
	2.6.3 Occasional Mode	N/A		

3.0 SITE SELECTION

3.1	Ownership	Railway Land
3.2	Land Area	5.09 Acres
3.3	Site Operations	
	3.3.1 Receiving fertilizer	MG Rail (Unit Train & Normal Train)
	3.3.2 Offtake of fertilizer	Truck, Bullock Cart.
3.4	Site Development Required:	Rail siding facilities. Road access. Fill to raise platform above flood levels

NFSP REF.	PDP WAREHOUSE LOCATION
C5	SHERPUR

1.0 INVENTORY OF EXISTING WAREHOUSES

		Storage Capacity	No.of Units	Category
1.1	Constructed Warehouse	200 Tons	1	Additional
1.2	Warehouse under construction	0		
1.3	Total	200 Tons		

1.4 Remarks: Existing godown too small for PDP use. New warehouse is in different site with better road access and has additional river access. May have to consider abandoning existing warehouse when new warehouse is built.

2.0 NFSP REQUIREMENTS

2.1	New Storage Capacity Needed	5 000 Tons		
2.2	Storage Capacity for Construction	6 000 Tons		
2.3	Source of Supply:	Urea	TSP	MP
2.3.1	Dry Season(via Jamalpur)	Ghorasal	Chittagong	Chittagong
2.3.2	Wet Season(via Jamalpur)	Ghorasal	Chittagong	Chittagong
2.4	Major Mode of Delivery:	Urea	TSP	MP
2.4.1	Dry Season (From Jamalpur)	Truck	Truck	Truck
2.4.2	Wet Season (From Jamalpur)	Truck/Boat.	Truck/Boat	Truck/Boat
2.5	Minor Mode of Delivery:	Country Boat		
2.6	Mode of Offtake:			
2.6.1	Major Mode	Truck, Bullock Cart, Country Boat.		
2.6.2	Minor Mode	N/A		
2.6.3	Occasional Mode	N/A		

3.0 SITE SELECTION

3.1	Ownership	Private Land
3.2	Land Area	
3.3	Site Operations	
3.3.1	Receiving fertilizer	Truck/Boat
3.3.2	Offtake of fertilizer	Truck, Bullock Cart, Country Boat.
3.4	Site Development Required:	Access to main road. Access to river. Fill to raise platform above flood levels.

NFSP REF. POP WAREHOUSE LOCATION

C6 GAFFARGAON

1.0 INVENTORY OF EXISTING WAREHOUSES

		Storage Capacity	No.of Units	Category
1.1	Constructed Warehouse	1 000 Tons	1	Big & Inter.
1.2	Warehouse under construction	0		
1.3	Total	1 000 Tons		
1.4	Remarks:			

2.0 NFSP REQUIREMENTS

2.1	New Storage Capacity Needed	5 000 Tons		
2.2	Storage Capacity for Construction	4 000 Tons		
2.3	Source of Supply:	Urea	TSP	MP
	2.3.1 Dry Season	Ghorasal	Chittagong	Chittagong
	2.3.2 Wet Season	Ghorasal	Chittagong	Chittagong
2.4	Major Mode of Delivery:	Urea	TSP	MP
	2.4.1 Dry Season	U.T. Rail	N.T. Rail	N.T. Rail
	2.4.2 Wet Season	U.T. Rail	N.T. Rail	N.T. Rail
2.5	Minor Mode of Delivery:	Truck		
2.6	Mode of Offtake:			
	2.6.1 Major Mode	Truck, Bullock Cart		
	2.6.2 Minor Mode	Country Boat		
	2.6.3 Occasional Mode	N/A		

3.0 SITE SELECTION

3.1	Ownership	Railway + Private Land
3.2	Land Area	1.90 + 0.79 = 2.69 Acres
3.3	Site Operations	
	3.3.1 Receiving fertilizer	MG Rail (Unit Train & Normal Train)
	3.3.2 Offtake of fertilizer	Truck, Bullock Cart, Country Boat.
3.4	Site Development Required:	Rail access, Rail siding facilities. River access. Fill to raise platform above flood levels.

NFSP REF. **PDP WAREHOUSE LOCATION**
D1 **MADHUPUR**

1.0 INVENTORY OF EXISTING WAREHOUSES

		Storage Capacity	No.of Units	Category
1.1	Constructed Warehouse	200 Tons	1	Additional
1.2	Warehouse under construction	0		
1.3	Total	200 Tons		

1.4 Remarks: Existing warehouse has poor road access. New warehouse has direct access to main highway. Should consider abandoning existing warehouse not suitable for PDP operation when new warehouse is built.

2.0 NFSP REQUIREMENTS

2.1	New Storage Capacity Needed	4 000 Tons		
2.2	Storage Capacity for Construction	5 000 Tons		
2.3	Source of Supply:	Urea	(TSP +	MP)
2.3.1	Dry Season (via Mymensingh)	Ghorasal	Chittagong	
2.3.2	Wet Season (via Mymensingh)	Ghorasal	Chittagong	
2.4	Major Mode of Delivery:	Urea	TSP	MP
2.4.1	Dry Season (From Mymensingh)	Truck	Truck	Truck
2.4.2	Wet Season (From Mymensingh)	Truck	Truck	Truck
2.5	Minor Mode of Delivery:	N/A		
2.5	Mode of Offtake:			
2.6.1	Major Mode	Truck		
2.6.2	Minor Mode	Bullock Cart		
2.6.3	Occasional Mode	N/A		

3.0 SITE SELECTION

3.1	Ownership	BADC's Seed Production Farm Land
3.2	Land Area	4.28 Acres
3.3	Site Operations	
3.3.1	Receiving fertilizer	Truck
3.3.2	Offtake of fertilizer	Truck, Bullock Cart.
3.4	Site Development Required:	Fill to raise platform above flood level p. Culvert crossing for road access to warehouse site. Relocate 11 KV Transmission line.

NFSP REF. PDP WAREHOUSE LOCATION

D2 MIRZAPUR

1.0 INVENTORY OF EXISTING WAREHOUSES

		Storage Capacity	No.of Units	Category
1.1	Constructed Warehouse	200 Tons	1	Additional
1.2	Warehouse under construction	0		
1.3	Total	200 Tons		

1.4 Remarks: Access to existing godown is bad. May have to consider abandoning existing godown when new godown is built.

2.0 NFSP REQUIREMENTS

2.1	New Storage Capacity Needed	2 500 Tons		
2.2	Storage Capacity for Construction	2 000 Tons		
2.3	Source of Supply:	Urea	TSP	MP
2.3.1	Dry Season (via Demra)	Ashuganj	Chittagong	Chalna
2.3.2	Wet Season (via Demra)	Ghorasal	Chittagong	Chalna
2.4	Major Mode of Delivery:	Urea	TSP	MP
2.4.1	Dry Season (from Demra)	Truck	Truck	Truck
2.4.2	Wet Season (from Demra)	Truck	Truck	Truck
2.5	Minor Mode of Delivery:	N/A		
2.6	Mode of Offtake:			
2.6.1	Major Mode	Truck, Bullock Cart		
2.6.2	Minor Mode	Country Boat		
2.6.3	Occasional Mode	N/A		

3.0 SITE SELECTION

3.1	Ownership	R & H Land + Private Property
3.2	Land Area	0.40 Acres + 1.44 Acres= 2.84 Acres
3.3	Site Operations	
3.3.1	Receiving fertilizer	40' wide access road to Dacca-Tangail Trunk Road existing.
3.3.2	Offtake of fertilizer	Truck, Bullock Cart & Country Boat.
3.4	Site Development Required:	Service Road in the warehouse compound to be built. Fill to raise platform above flood levels. Facilities for offtake by Country Boat.

NFSP REF. PDP WAREHOUSE LOCATION

D3 TANGAIL

1.0 INVENTORY OF EXISTING WAREHOUSES

		Storage Capacity	No. of Units	Category
1.1	Constructed Warehouse	1 000 Tons 2 000 Tons	1 1	Big & Inter Hardcore
1.2	Warehouse under construction	0		
1.3	Total	3 000 Tons		

1.4 Remarks : Existing warehouses will operate as PDP and no new construction planned.

2.0 NFSP REQUIREMENTS

2.1	New Storage Capacity Needed	1 500 Tons		
2.2	Storage Capacity for Construction	NIL		
2.3	Source of Supply:	Urea	TSP	MP
	2.3.1 Dry Season (via Demra)	Ashuganj	Chittagong	Chittagong/Chalna
	2.3.2 Wet Season (via Demra)	Ghoraal	Chittagong	Chittagong/Chalna
2.4	Major Mode of Delivery:	Urea	TSP	MP
	2.4.1 Dry Season (From Demra)	Truck	Truck	Truck
	2.4.2 Wet Season (From Demra)	Truck	Truck	Truck
2.5	Minor Mode of Delivery:	N/A		
2.6	Mode of Offtake:			
	2.6.1 Major Mode	Truck, Bullock Cart		
	2.6.2 Minor Mode	Country Boat		
	2.6.3 Occasional Mode	N/A		

3.0 SITE SELECTION

3.1	Ownership	N/A
3.2	Land Area	N/A
3.3	Site Operations	
	3.3.1 Receiving fertilizer	Truck
	3.3.2 Offtake of fertilizer	Truck, Bullock Cart, Country Boat.
3.4	Site Development Required:	N/A.

NFSP REF. PDP WAREHOUSE LOCATION

E1 : RAJBARI

1.0 INVENTORY OF EXISTING WAREHOUSES

		Storage Capacity	No.of Units	Category
1.1	Constructed Warehouse	500 Tons	1	Big & Inter.
1.2	Warehouse under construction	0		
1.3	Total	500 Tons		
1.4	Remarks			

2.0 NFSP REQUIREMENTS

2.1	New Storage Capacity Needed	1 500 Tons		
2.2	Storage Capacity for Construction	1 000 Tons		
2.3	Source of Supply:	Urea	TSP	MP
2.3.1	Dry Season (via Tepakhola)	Ashuganj	Chittagong	Chittagong
2.3.2	Wet Season (via Tepakhola)	Ghorasal	Chittagong	Chittagong
2.4	Major Mode of Delivery:	Urea	TSP	MP
2.4.1	Dry Season (from Tepakhola)	Truck	Truck	Truck
2.4.2	Wet Season (from Tepakhola)	Truck	Truck	Truck
2.5	Minor Mode of Delivery:			
2.6	Mode of Offtake:			
2.6.1	Major Mode	Bullock Cart & Truck		
2.6.2	Minor Mode	Country Boat		
2.6.3	Occasional Mode	N/A		

3.0 SITE SELECTION

3.1	Ownership	Private Land
3.2	Land Area	2.48 Acres
3.3	Site Operations	
3.3.1	Receiving fertilizer	Truck
3.3.2	Offtake of fertilizer	Country Boat
3.4	Site Development Required:	± 200' long access road to Faridpur Highway to be built. Service road around proposed warehouse to be developed. Plot behind proposed warehouse requires ± 10' fill. ±500' long road to be developed to connect the existing and the proposed godowns.

NFSP REF. **PDP WAREHOUSE LOCATION**

E2 **PALONG**

1.0 INVENTORY OF EXISTING WAREHOUSES

	Storage Capacity	No.of Units	Category
1.1 Constructed Warehouse	NIL		
1.2 Warehouse under construction	NIL		
1.3 Total	NIL		
1.4 Remarks			

2.0 NFSP REQUIREMENTS

2.1 New Storage Capacity Needed	2 500 Tons		
2.2 Storage Capacity for Construction	2 000 Tons		
2.3 Source of Supply:	Urea	TSP	MP
2.3.1 Dry Season	Ashuganj	Chittagong	Chalna
2.3.2 Wet Season	Ghoraseal	Chittagong	Chalna
2.4 Major Mode of Delivery:	Urea	TSP	MP
2.4.1 Dry Season	Barge	Barge	Barge
2.4.2 Wet Season	Barge	Barge	Barge
2.5 Minor Mode of Delivery:	Country Boat during Dry season		
2.6 Mode of Offtake:			
2.6.1 Major Mode	Country Boat, Bullock Cart		
2.6.2 Minor Mode	Truck		
2.6.3 Occasional Mode	N/A		

3.0 SITE SELECTION

3.1 Ownership	Private Land
3.2 Land Area	2.30 Acres
3.3 Site Operations	
3.3.1 Receiving fertilizer	Barge
3.3.2 Offtake of fertilizer	Country Boat, Bullock Cart.
3.4 Site Development Required:	Jetty facilities for barges. Road access. Fill to raise platform above flood levels.

NFSP REF. **PDP WAREHOUSE LOCATION**

E3 GOPALGANJ

1.0 INVENTORY OF EXISTING WAREHOUSES

		Storage Capacity	No.of Units	Category
1.1	Constructed Warehouse	400 Tons	1	Additional
1.2	Warehouse under construction	0		
1.3	Total	400 Tons		
1.4	Remarks			

2.0 NFSP REQUIREMENTS

2.1	New Storage Capacity Needed	500 Tons		
2.2	Storage Capacity for Construction	1 000 Tons		
2.3	Source of Supply:	Urea	TSP	MP
2.3.1	Dry Season	Chalna	Chalna	Chalna
2.3.2	Wet Season	Ashuganj	Chalna	Chalna
2.4	Major Mode of Delivery:	Urea	TSP	MP
2.4.1	Dry Season	Barge	Barge	Barge
2.4.2	Wet Season	Barge	Barge	Barge
2.5	Minor Mode of Delivery:	Country Boat during dry season.		
2.6	Mode of Offtake:			
2.6.1	Major Mode	Country Boat & Bullock Cart		
2.6.2	Minor Mode	Truck		
2.6.3	Occasional Mode	N/A		

3.0 SITE SELECTION

3.1	Ownership	Private + WAPDA Property
3.2	Land Area	0.26 + 1.44 = 1.70 Acres
3.3	Site Operations	
3.3.1	Receiving fertilizer	Barge
3.3.2	Offtake of fertilizer	Country Boat & Bullock Cart
3.4	Site Development Required:	Barge unloading facilities. Road access. Fill to raise platform above flood levels. ±200' long access to river bank.

NFSP REF. PDP WAREHOUSE LOCATION

E4 Tepakhola

1.0 INVENTORY OF EXISTING WAREHOUSES

		Storage Capacity	No.of Units	Category
1.1	Constructed Warehouse	2 000 Tons	1	USAID Phase I
1.2	Warehouse under construction	0		
1.3	Total	2 000 Tons		

1.4 Remarks : River bank is shifting. Godowns away from river bank and requires trucking from ghat to warehouse. New warehouse on opposite side of road of existing warehouse.

2.0 NFSP REQUIREMENTS

2.1	New Storage Capacity Needed	3 500 Tons		
2.2	Storage Capacity for Construction	4 000 Tons		
2.3	Source of Supply:	Urea	TSP	MP
	2.3.1 Dry Season	Ashuganj	Chittagong	Chalna
	2.3.2 Wet Season	Ghorasal	Chittagong	Chalna
2.4	Major Mode of Delivery:	Urea	TSP	MP
	2.4.1 Dry Season	Barge	Barge	Barge
	2.4.2 Wet Season	Barge	Barge	Barge
2.5	Minor Mode of Delivery:	Truck from Tepakhola Ghat		
2.6	Mode of Offtake:			
	2.6.1 Major Mode	Truck		
	2.6.2 Minor Mode	Bullock Cart		
	2.6.3 Occasional Mode	Country Boat		

3.0 SITE SELECTION

3.1	Ownership	BADC's owned property (M & P Division)
3.2	Land Area	2.73 Acres
3.3	Site Operations	
	3.3.1 Receiving fertilizer	Barge & Truck
	3.3.2 Offtake of fertilizer	Truck, Bullock Cart
3.4	Site Development Required:	Site requires filling to raise platform above flood levels.

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NFSP REF. PDP WAREHOUSE LOCATION

E5 MADARIPUR

1.0 INVENTORY OF EXISTING WAREHOUSES

	Storage Capacity	No.of Units	Category
1.1 Constructed Warehouse	500 Tons	1	Big & Inter.
1.2 Warehouse under construction	500 Tons	1	USAID Phase I
1.3 Total	1 000 Tons		
1.4 Remarks			

2.0 NFSP REQUIREMENTS

2.1 New Storage Capacity Needed	2 500 Tons		
2.2 Storage Capacity for Construction	2 000 Tons		
2.3 Source of Supply:	Urea	TSP	MP
2.3.1 Dry Season	Ashuganj	Chalna	Chalna
2.3.2 Wet Season	Ghorasal	Chittagong	Chalna
2.4 Major Mode of Delivery:	Urea	TSP	MP
2.4.1 Dry Season	Barge	Barge	Barge
2.4.2 Wet Season	Barge	Barge	Barge
2.5 Minor Mode of Delivery:	Truck from Ghat		
2.6 Mode of Offtake:			
2.6.1 Major Mode	Truck, Bullock Cart		
2.6.2 Minor Mode	Country Boat		
2.6.3 Occasional Mode	N/A		

3.0 SITE SELECTION

3.1 Ownership	Private Land
3.2 Land Area	2.00 Acres
3.3 Site Operations	
3.3.1 Receiving fertilizer	Barge & Truck
3.3.2 Offtake of fertilizer	Truck, Bullcock Cart & Country Boat.
3.4 Site Development Required:	Fill to raise platform above flood levels. Road access.

NFSP REF. PDP WAREHOUSE LOCATION

F1 DOHAZARI

1.0 INVENTORY OF EXISTING WAREHOUSES

		Storage Capacity	No.of Units	Category
1.1	Constructed Warehouse	500 Tons	1	Big & Inter
1.2	Warehouse under construction	0		
1.3	Total	500 Tons		

1.4 Remarks: Existing Warehouse badly located and has very poor access to main road. Should consider for abandoning from PDP use when new Warehouse is built.

2.0 NFSP REQUIREMENTS

2.1	New Storage Capacity Needed	3 000 Tons		
2.2	Storage Capacity for Construction	2 000 Tons		
2.3	Source of Supply:	Urea	TSP	MP
2.3.1	Dry Season	Ctg. Port	TSP Plant	Chittagong Port
2.3.2	Wet Season	Ashuganj (via Ctg.)	TSP Plant	Chittagong Port
2.4	Major Mode of Delivery:	Urea	TSP	MP
2.4.1	Dry Season	Truck	Truck	Truck
2.4.2	Wet Season	Truck	Truck	Truck
2.5	Minor Mode of Delivery:	N/A		
2.6	Mode of Offtake:			
2.6.1	Major Mode	Truck, Bullock Cart		
2.6.2	Minor Mode	Country Boat		
2.6.3	Occasional Mode	N/A		

3.0 SITE SELECTION

3.1	Ownership :	Government Khas Land
3.2	Land Area :	3.12 Acres
3.3	Site Operations	
3.3.1	Receiving fertilizer :	Truck
3.3.2	Offtake of fertilizer:	Truck, Bullock Cart & Country Boat
3.4	Site Development Required:	Access to river ; Access to main Highway. Fill required to raise platform above flood levels.

NFSP REF. PDP WAREHOUSE LOCATION

F2 : CHAKARIA

1.0 INVENTORY OF EXISTING WAREHOUSES

		Storage Capacity	No.of Units	Category
1.1	Constructed Warehouse	200 Tons	1	Additional
1.2	Warehouse under construction	0		
1.3	Total	200 Tons		
1.4	Remarks			

2.0 NFSP REQUIREMENTS

2.1	New Storage Capacity Needed	2 000 Tons		
2.2	Storage Capacity for Construction	2 000 Tons		
2.3	Source of Supply:	Urea	TSP	MP
2.3.1	Dry Season	Chittagong	TSP Plant	Chittagong Port
2.3.2	Wet Season	Ashuganj (via Ctg.)	TSP Plant	Chittagong Port
2.4	Major Mode of Delivery:	Urea	TSP	MP
2.4.1	Dry Season	Truck	Truck	Truck
2.4.2	Wet Season	Truck	Truck	Truck
2.5	Minor Mode of Delivery:	N/A		
2.6	Mode of Offtake:			
2.6.1	Major Mode	Truck & Bullock Cart		
2.6.2	Minor Mode	Country Boat		
2.6.3	Occasional Mode	N/A		

3.0 SITE SELECTION

3.1	Ownership	R&H Property
3.2	Land Area	2.98 Acres
3.3	Site Operations	
3.3.1	Receiving fertilizer:	Truck.
3.3.2	Offtake of fertilizer:	Truck, Bullock Cart & Country Boat.
3.4	Site Development Required:	Access to river (± 200' long) Access to Chittagong-Cox's Bazar Highway. Fill to raise platform above flood levels.

NFSP REF. PDP WAREHOUSE LOCATION

F3 COX'S BAZAR

1.0 INVENTORY OF EXISTING WAREHOUSES

		Storage Capacity	No.of Units	Category
1.1	Constructed Warehouse	400 Tons	1	Additional
1.2	Warehouse under construction	0		
1.3	Total	400 Tons		

1.4 Remarks : New site has access to road and river.

2.0 NFSP REQUIREMENTS

2.1	New Storage Capacity Needed	2 000 Tons		
2.2	Storage Capacity for Construction	3 000 Tons		
2.3	Source of Supply:	Urea	TSP	MP
2.3.1	Dry Season	Chittagong Port	TSP Plant	Chittagong Port
2.3.2	Wet Season	Ashuganj (via Chittagong)	TSP Plant	Chittagong Port
2.4	Major Mode of Delivery:	Urea	TSP	MP
2.4.1	Dry Season	Truck	Truck	Truck
2.4.2	Wet Season	Coaster	Coaster	Coaster
2.5	Minor Mode of Delivery:	Barge		
2.6	Mode of Offtake:			
2.6.1	Major Mode	Truck, Bullock Cart.		
2.6.2	Minor Mode	Country Boat		
2.6.3	Occasional Mode	N/A.		

3.0 SITE SELECTION

3.1	Ownership :	BADC-owned except for access to river.
3.2	Land Area :	Small strip of access to river privately owned to be acquired/leased.
3.3	Site Operations	
3.3.1	Receiving fertilizer:	Truck, Coaster.
3.3.2	Offtake of fertilizer:	Truck, Bullock Cart, Country Boat.
3.4	Site Development Required:	Access to river. Site filling to raise platform above flood level. Jetty for country boats/Coaster.

NFSP REF. PDP WAREHOUSE LOCATION

F4 : SANDWIP

1.0 INVENTORY OF EXISTING WAREHOUSES

		Storage Capacity	No.of Units	Category
1.1	Constructed Warehouse	2 x 200= 400 Tons	2	Additional
1.2	Warehouse under construction	0		
1.3	Total	400 Tons		

1.4 Remarks : Site is accessible for restocking during the dry season only. Shore-lines are shifting.

2.0 NFSP REQUIREMENTS

2.1	New Storage Capacity Needed	2 500 Tons		
2.2	Storage Capacity for Construction	3 000 Tons		
2.3	Source of Supply:	Urea +	TSP +	MP
	2.3.1 Dry Season	Imports at Chittagong		
	2.3.2 Wet Season	N/A	N/A	N/A
2.4	Major Mode of Delivery:	Urea	TSP	MP
	2.4.1 Dry Season	Barge	Barge	Barge
	2.4.2 Wet Season	N/A	N/A	N/A
2.5	Minor Mode of Delivery:	Truck		
2.6	Mode of Offtake:			
	2.6.1 Major Mode	Truck		
	2.6.2 Minor Mode	Bullock Cart		
	2.6.3 Occasional Mode	Country Boat		

3.0 SITE SELECTION

3.1	Ownership:	Private Land
3.2	Land Area:	1.78 Acres
3.3	Site Operations	
	3.3.1 Receiving fertilizer:	Barge & Truck
	3.3.2 Offtake of fertilizer:	Truck, Bullock Cart
3.4	Site Development Required:	Site fill above flood level. Develop site access to main road.

NFSP REF. **PDP CUM TRANSIT WAREHOUSE LOCATION**

F5 : CHITTAGONG

1.0 INVENTORY OF EXISTING WAREHOUSES

		Storage Capacity	No.of Units	Category
1.1	Constructed Warehouse	Total 8 000 Tons	7	Big & Inter
		Total 25 000 Tons	3	Transit
1.2	Warehouse under construction	Total 200 Tons	1	Additional
		2 000 Tons	1	Hardcore
1.3	Total	35.200 Tons		

1.4 Remarks: Existing warehouses to operate as Transit warehouses and as PDPs. No new construction planned.

2.0 NFSP REQUIREMENTS

2.1	New Storage Capacity Needed	12 500 Tons		
2.2	Storage Capacity for Construction	NIL		
2.3	Source of Supply:	Urea	TSP	MP
	2.3.1 Dry Season	Imports.	Imports/Local	Imports
	2.3.2 Wet Season	Ashuganj	Imports/Local	Imports
2.4	Major Mode of Delivery:	Urea	TSP	MP
	2.4.1 Dry Season	Ship	Ship/Truck	Ship
	2.4.2 Wet Season	Unit Train	Ship/Truck.	Ship.
2.5	Minor Mode of Delivery:	Truck		
2.6	Mode of Offtake:			
	2.6.1 Major Mode	Truck, Rail		
	2.6.2 Minor Mode	Barge		
	2.6.3 Occasional Mode	Country Boat		

3.0 SITE SELECTION

3.1	Ownership :	N/A
3.2	Land Area :	N/A
3.3	Site Operations	
	3.3.1 Receiving fertilizer:	Ship & Rail
	3.3.2 Offtake of fertilizer:	Truck, Rail, Barge
3.4	Site Development Required:	N/A

NFSP REF.	PDP WAREHOUSE LOCATION
H1	FENI

1.0 INVENTORY OF EXISTING WAREHOUSES

		Storage Capacity	No.of Units	Category
1.1	Constructed Warehouse	500 Tons	1	Big & Inter
1.2	Warehouse under construction	3 000 Tons	1	USAID Phase I
1.3	Total	3 500 Tons		
1.4	Remarks;			

2.0 NFSP REQUIREMENTS

2.1	New Storage Capacity Needed	4 000 Tons		
2.2	Storage Capacity for Construction	3 000 Tons		
2.3	Source of Supply:	Urea	(TSP +	MP)
2.3.1	Dry Season	N/A	Chittagong Port	
2.3.2	Wet Season	Ashuganj & Fenchuganj (via Chaumuhani)	Chittagong Port	
2.4	Major Mode of Delivery:	Urea	TSP	MP
2.4.1	Dry Season	N/A	Truck	Truck
2.4.2	Wet Season	Rail	Truck	Truck
2.5	Minor Mode of Delivery:	Truck from Chaumuhani Railway Station (Wet Season - Urea)		
2.6	Mode of Offtake:			
2.6.1	Major Mode	Truck & Bullock Cart		
2.6.2	Minor Mode	N/A		
2.6.3	Occasional Mode	N/A		

3.0 SITE SELECTION

3.1	Ownership	BADC-owned Property
3.2	Land Area	± 6.48 Acres
3.3	Site Operations	
3.3.1	Receiving fertilizer	Truck
3.3.2	Offtake of fertilizer	Truck & Bullock Cart
3.4	Site Development Required:	A 40' wide roadway to be built which will pass by the existing 3000 Tons fertilizer godown in the PDP Warehouse Complex.

NFSP REF. PDP WAREHOUSE LOCATION

H2 CHAUMUHANI

1.0 INVENTORY OF EXISTING WAREHOUSES

		Storage Capacity	No.of Units	Category
1.1	Constructed Warehouse	500 Tons	1	Big & Inter.
1.2	Warehouse under construction	0		
1.3	Total	500 Tons		

1.4 Remarks: Road access to existing godown is bad. May have to consider abandoning existing godown when new godown is built.

2.0 NFSP REQUIREMENTS

2.1	New Storage Capacity Needed	5 000 Tons		
2.2	Storage Capacity for Construction	5 000 Tons		
2.3	Source of Supply:	Urea	TSP	MP
2.3.1	Dry Season	Fenchuganj	TSP Plant	Chittagong Port
2.3.2	Wet Season	Fenchuganj	TSP Plant	Chittagong Port
2.4	Major Mode of Delivery:	Urea	TSP	MP
2.4.1	Dry Season	Rail	Rail	Rail
2.4.2	Wet Season	Rail	Rail	Rail
2.5	Minor Mode of Delivery:	Truck from Chaumuhani Railway Station.		
2.6	Mode of Offtake:			
2.6.1	Major Mode	Truck		
2.6.2	Minor Mode	Bullock Cart		
2.6.3	Occasional Mode	Country Boat (Wet Season only)		

3.0 SITE SELECTION

3.1	Ownership	Private Property
3.2	Land Area	2.78 Acres
3.3	Site Operations	
3.3.1	Receiving fertilizer	Truck
3.3.2	Offtake of fertilizer	Truck, Bullock Cart.
3.4	Site Development Required:	40' wide service road around proposed warehouse. Road access.

NFSP REF. PDP WAREHOUSE LOCATION

H3 LAKSMIPUR

1.0 INVENTORY OF EXISTING WAREHOUSES

		Storage Capacity	No.of Units	Category
1.1	Constructed Warehouse	400 Tons	1	Additional
1.2	Warehouse under construction	1 000 Tons	1	USAID Phase I
1.3	Total	1 400 Tons		

1.4 Remarks: New warehouse site is next to the 1,000 Tons warehouse under construction.

2.0 NFSP REQUIREMENTS

2.1	New Storage Capacity Needed	2 000 Tons		
2.2	Storage Capacity for Construction	2 000 Tons		
2.3	Source of Supply:	Urea	TSP	MP
2.3.1	Dry Season(via Chaumuhani)	Fenchuganj	Ctg. Port	Chittagong Port
2.3.2	Wet Season(via Chaumuhani)	Fenchuganj	TSP Plant	Chittagong Port
2.4	Major Mode of Delivery:	Urea	TSP	MP
2.4.1	Dry Season(From Chaumuhani)	Rail	Rail	Rail
2.4.2	Wet Season(From Chaumuhani)	Rail	Rail	Rail
2.5	Minor Mode of Delivery:	Truck from Chaumuhani Railway Station.		
2.6	Mode of Offtake:			
2.6.1	Major Mode	Truck, Bullock Cart.		
2.6.2	Minor Mode	N/A		
2.6.3	Occasional Mode	N/A		

3.0 SITE SELECTION

3.1	Ownership	
3.2	Land Area	
3.3	Site Operations	
3.3.1	Receiving fertilizer	Truck
3.3.2	Offtake of fertilizer	Truck & Bullock Cart.
3.4	Site Development Required:	Culvert access to main road to be widened to facilitate trucking movements. Integrate with existing warehouse for sharing common facilities.

NFSP REF. PDP WAREHOUSE LOCATION

H4 HATIYA

1.0 INVENTORY OF EXISTING WAREHOUSES

		Storage Capacity	No.of Units	Category
1.1	Constructed Warehouse	400 Tons		Additional
1.2	Warehouse under construction	0		
1.3	Total	400 Tons		

1.4 Remarks: Hatiya islandis accessible to the barges during the dry season only.

2.0 NFSP REQUIREMENTS

2.1	New Storage Capacity Needed	3 500 Tons		
2.2	Storage Capacity for Construction	3 000 Tons		
2.3	Source of Supply:	Urea +	TSP +	MP
2.3.1	Dry Season	Imports at Chittagong.		
2.3.2	Wet Season	N/A	N/A	N/A
2.4	Major Mode of Delivery:	Urea	TSP	MP
2.4.1	Dry Season	Barge	Barge	Barge
2.4.2	Wet Season	N/A	N/A	N/A
2.5	Minor Mode of Delivery:	Truck to PDP from ghat		
2.6	Mode of Offtake:			
2.6.1	Major Mode	Truck, Bullock Cart		
2.6.2	Minor Mode	Country Boat		
2.6.3	Occasional Mode			

3.0 SITE SELECTION

3.1	Ownership	[Site not selected]
3.2	Land Area	
3.3	Site Operations	
3.3.1	Receiving fertilizer	Barge & Truck
3.3.2	Offtake of fertilizer	Truck, Bullock Cart & Country Boat
3.4	Site Development Required:	Road access. River access. Fill to raise platform above flood levels.

NFSP REF. PDP WAREHOUSE LOCATION

I1 . COMILLA

1.0 INVENTORY OF EXISTING WAREHOUSES

		Storage Capacity	No.of Units	Category
1.1	Constructed Warehouse	1 000 Tons	1	Big & Inter.
1.2	Warehouse under construction	1 000 Tons	1	Hardcore
1.3	Total	2 000 Tons		

1.4 Remarks: These two warehouses have no rail siding facilities. Should be considered for abandoning as PDP when the new warehouse is built.

2.0 NFSP REQUIREMENTS

2.1	New Storage Capacity Needed	7 000 Tons		
2.2	Storage Capacity for Construction	8 000 Tons		
2.3	Source of Supply:	Urea	TSP	MP
2.3.1	Dry Season	Ghorasal & Ctg.	TSP Plant & Ctg.	Ctg. Port
2.3.2	Wet Season	Ashuganj	TSP Plant & Ctg.	Ctg. Port
2.4	Major Mode of Delivery:	Urea	TSP	MP
2.4.1	Dry Season	Rail	Rail	Rail
2.4.2	Wet Season	Rail	Rail	Rail
2.5	Minor Mode of Delivery:	N/A		
2.6	Mode of Offtake:			
2.6.1	Major Mode	Truck		
2.6.2	Minor Mode	Bullock Cart		
2.6.3	Occasional Mode	Rail		

3.0 SITE SELECTION

3.1	Ownership	Private Land & Railway Land
3.2	Land Area	8.54 + 1.09 = 9.63 Acres
3.3	Site Operations	
3.3.1	Receiving fertilizer	MG Rail
3.3.2	Offtake of fertilizer	Truck & Bullock Cart.
3.4	Site Development Required:	Rail facilities. Access to main highway land to be filled above flood levels.

NFSP REF. PDP WAREHOUSE LOCATION

I2 . BRAHMANBARIA

1.0 INVENTORY OF EXISTING WAREHOUSES

		Storage Capacity	No.of Units	Category
1.1	Constructed Warehouse	1 000 Tons	1	Big & Inter.
1.2	Warehouse under construction	750 Tons	1	Hardcore
1.3	Total	1 750 Tons		

1.4 Remarks: The two warehouses including the new one are in different locations.

2.0 NFSP REQUIREMENTS

2.1	New Storage Capacity Needed	6 000 Tons		
2.2	Storage Capacity for Construction	6 000 Tons		
2.3	Source of Supply:	Urea	TSP	MP
	2.3.1 Dry Season	Ashuganj	TSP Plant	Chittagong Port
	2.3.2 Wet Season	Ashuganj	TSP Plant	Chittagong Port
2.4	Major Mode of Delivery:	Urea	TSP	MP
	2.4.1 Dry Season	Truck	Rail	Rail
	2.4.2 Wet Season	Truck	Rail + Truck	Rail + Truck
2.5	Minor Mode of Delivery:	Truck to PDP from Railway Station		
2.6	Mode of Offtake:			
	2.6.1 Major Mode	Truck		
	2.6.2 Minor Mode	Bullock Cart, Country Boat.		
	2.6.3 Occasional Mode			

3.0 SITE SELECTION

3.1	Ownership	BADC-owned land
3.2	Land Area	
3.3	Site Operations	
	3.3.1 Receiving fertilizer	Truck,MG Rail + Truck
	3.3.2 Offtake of fertilizer	Truck, Bullock Cart & Country Boat.
3.4	Site Development Required:	Box culvert for site access to main highway. Fill required to raise platform above flood levels. Facilities for river access for country boats to lift fertilizer.

NFSP REF. PDP WAREHOUSE LOCATION

I3 DAUDKANDI

1.0 INVENTORY OF EXISTING WAREHOUSES

		Storage Capacity	No.of Units	Category
1.1	Constructed Warehouse	400 Tons	1	Additional
1.2	Warehouse under construction	0		
1.3	Total	400 Tons		

1.4 Remarks : Existing warehouse is away from new warehouse to be built and may be considered for abandoning when new warehouse is completed.

2.0 NFSP REQUIREMENTS

2.1	New Storage Capacity Needed	3 000 Tons		
2.2	Storage Capacity for Construction	4 000 Tons		
2.3	Source of Supply:	Urea	[TSP +	MP]
2.3.1	Dry Season	Ashuganj	Chittagong Port	
2.3.2	Wet Season	Ashuganj	Chittagong Port	
2.4	Major Mode of Delivery:	Urea	TSP	MP
2.4.1	Dry Season	Barge	Barge	Barge
2.4.2	Wet Season	Barge	Barge	Barge
2.5	Minor Mode of Delivery:	N/A		
2.6	Mode of Offtake:			
2.6.1	Major Mode	Truck		
2.6.2	Minor Mode	Country Boat, Bullock Cart.		
2.6.3	Occasional Mode	N/A		

3.0 SITE SELECTION

3.1	Ownership	BADC owned + Private Land
3.2	Land Area	
3.3	Site Operations	
3.3.1	Receiving fertilizer	Barge
3.3.2	Offtake of fertilizer	Truck, Country Boat, Bullock Cart.
3.4	Site Development Required:	Land filling. Access to river including jetty facilities for barges to dock. Access to main road. Acquisition of private land for road access.

NFSP REF. POP WAREHOUSE LOCATION
I4 CHANDPUR

1.0 INVENTORY OF EXISTING WAREHOUSES

		Storage Capacity	No. of Units	Category
1.1	Constructed Warehouse	1 000 Tons	1	Big & Inter.
		500 Tons	1	Big & Inter.
1.2	Warehouse under construction	0		
1.3	Total	1 500 Tons		
1.4	Remarks			

2.0 NFSP REQUIREMENTS

2.1	New Storage Capacity Needed	3 000 Tons		
2.2	Storage Capacity for Construction	6 000 Tons		
2.3	Source of Supply:	Urea	(TSP +	MP)
2.3.1	Dry Season	Ashuganj	Chittagong Port	
2.3.2	Wet Season	Ashuganj	Chittagong Port	
2.4	Major Mode of Delivery:	Urea	TSP	MP
2.4.1	Dry Season	Barge	Barge	Barge
2.4.2	Wet Season	Barge	Barge	Barge
2.5	Minor Mode of Delivery:	N/A		
2.6	Mode of Offtake:			
2.6.1	Major Mode	Truck, Country Boat		
2.6.2	Minor Mode	Bullock Cart		
2.6.3	Occasional Mode	N/A		

3.0 SITE SELECTION

3.1	Ownership	BADC-owned Land
3.2	Land Area	6.67 Acres
3.3	Site Operations	
3.3.1	Receiving fertilizer	Barge
3.3.2	Offtake of fertilizer	Truck, Country Boat & Bullock Cart.
3.4	Site Development Required:	Tinsheds previously used as jute godowns to be demolished. Road access. River access. Filling to raise the platform above flood levels.

NFSP REF. **PDP WAREHOUSE LOCATION**

I5 LAKSAM

1.0 INVENTORY OF EXISTING WAREHOUSES

		Storage Capacity	No.of Units	Category
1.1	Constructed Warehouse 2 x 500=	1 000 Tons	2	Big & Inter.
1.2	Warehouse under construction	0		
1.3	Total	1 000 Tons		

1.4 Remarks: Existing warehouses have no rail siding facilities. May have to consider abandoning them when PDP system operates from new warehouse.

2.0 NFSP REQUIREMENTS

2.1	New Storage Capacity Needed	5 000 Tons		
2.2	Storage Capacity for Construction	5 000 Tons		
2.3	Source of Supply:	Urea	(TSP +	MP)
2.3.1	Dry Season	Chittagong	Chittagong	
2.3.2	Wet Season	Ashuganj	Chittagong	
2.4	Major Mode of Delivery:	Urea	TSP	MP
2.4.1	Dry Season	Rail	Rail	Rail
2.4.2	Wet Season	Rail	Rail	Rail
2.5	Minor Mode of Delivery:	N/A		
2.6	Mode of Offtake:			
2.6.1	Major Mode	Truck & Bullock Cart		
2.6.2	Minor Mode	N/A		
2.6.3	Occasional Mode	N/A		

3.0 SITE SELECTION

3.1	Ownership	Railway + Private Land.
3.2	Land Area	0.52 + 4.39 = 4.91 Acres.
3.3	Site Operations	
3.3.1	Receiving fertilizer	MG Rail
3.3.2	Offtake of fertilizer	Truck, Bullock Cart.
3.4	Site Development Required:	Access road to Comilla-Feni Trunk Road to be developed. Existing rail siding to be extended to serve warehouse site.

NFSP REF. POP WAREHOUSE LOCATION

J1 LASKARPUR

1.0 INVENTORY OF EXISTING WAREHOUSES

		Storage Capacity	No.of Units	Category
1.1	Constructed Warehouse	NIL		
1.2	Warehouse under construction	NIL		
1.3	Total	NIL		
1.4	Remarks			

2.0 NFSP REQUIREMENTS

2.1	New Storage Capacity Needed	6 500 Tons		
2.2	Storage Capacity for Construction	5 000 Tons		
2.3	Source of Supply:	Urea	TSP	MP
	2.3.1 Dry Season	Fenchuganj	TSP Plant	Chittagong Port
	2.3.2 Wet Season	Fenchuganj	TSP Plant	Chittagong Port
2.4	Major Mode of Delivery:	Urea	TSP	MP
	2.4.1 Dry Season	Rail	Rail	Rail
	2.4.2 Wet Season	Rail	Rail	Rail
2.5	Minor Mode of Delivery:	N/A		
2.6	Mode of Offtake:			
	2.6.1 Major Mode	Truck, Bullock Cart		
	2.6.2 Minor Mode	Country Boat		
	2.6.3 Occasional Mode	N/A		

3.0 SITE SELECTION

3.1	Ownership	
3.2	Land Area	
3.3	Site Operations	
	3.3.1 Receiving fertilizer	MG Rail
	3.3.2 Offtake of fertilizer	Truck, Bullock Cart & Country Boat.
3.4	Site Development Required:	Rail siding facilities to site. Access to main highway. Fill to raise platform above flood levels.

NFSP REF. **PDP WAREHOUSE LOCATION**

J2 . KULAURA

1.0 INVENTORY OF EXISTING WAREHOUSES

		Storage Capacity	No.of Units	Category
1.1	Constructed Warehouse	400 Tons	1	Hardcore
1.2	Warehouse under construction	0		
1.3	Total	400 Tons		

1.4 Remark: The new warehouse site is away from existing Hardcore warehouse. May have to consider abandoning existing warehouse when new warehouse is built.

2.0 NFSP REQUIREMENTS

2.1	New Storage Capacity Needed	1 000 Tons		
2.2	Storage Capacity for Construction	2 000 Tons		
2.3	Source of Supply:	Urea	TSP	MP
2.3.1	Dry Season	Fenchuganj	TSP Plant	Chittagong Port
2.3.2	Wet Season	Fenchuganj	TSP Plant	Chittagong Port
2.4	Major Mode of Delivery:	Urea	TSP	MP
2.4.1	Dry Season	Rail	Rail	Rail
2.4.2	Wet Season	Rail	Rail	Rail
2.5	Minor Mode of Delivery:	N/A		
2.6	Mode of Offtake:			
2.6.1	Major Mode	Truck		
2.6.2	Minor Mode	Bullock Cart		
2.6.3	Occasional Mode	N/A		

3.0 SITE SELECTION

3.1	Ownership	Railway + Private Land
3.2	Land Area	3.24 Acres + 0.09 Acres = 3.33 Acres
3.3	Site Operations	
3.3.1	Receiving fertilizer	MG Rail (Normal Trains)
3.3.2	Offtake of fertilizer	Truck & Bullock Cart
3.4	Site Development Required:	Extending existing Rail sidings to serve warehouse site. Road access from warehouse site to main highway. Fill required.

NFSP REF. PDP WAREHOUSE LOCATION

J3 . AZMIRIGANJ

1.0 INVENTORY OF EXISTING WAREHOUSES

	Storage Capacity	No.of Units	Category
1.1 Constructed Warehouse	200 Tons	1	Additional
1.2 Warehouse under construction	0		
1.3 Total	200 Tons		
1.4 Remarks			

2.0 NFSP REQUIREMENTS

2.1 New Storage Capacity Needed	5 000 Tons		
2.2 Storage Capacity for Construction	3 000 Tons		
2.3 Source of Supply:	Urea	(TSP +	MP)
2.3.1 Dry Season	Ashuganj	Chittagong Port	
2.3.2 Wet Season	Ashuganj	Chittagong Port	
2.4 Major Mode of Delivery:	Urea	TSP	MP
2.4.1 Dry Season	Cargo Launch	Cargo Launch	Cargo Launch
2.4.2 Wet Season	Barge	Barge	Barge
2.5 Minor Mode of Delivery:	Country Boat during dry season		
2.6 Mode of Offtake:			
2.6.1 Major Mode	Country Boat, Bullock Cart		
2.6.2 Minor Mode	N/A		
2.6.3 Occasional Mode	Truck		

3.0 SITE SELECTION

3.1 Ownership	
3.2 Land Area	
3.3 Site Operations	
3.3.1 Receiving Fertilizer	Barge/ Cargo Launch/Country Boat
3.3.2 Offtake of Fertilizer	Country Boat, Bullock Cart & Truck
3.4 Site Development Required:	

NFSP REF.	POP WAREHOUSE LOCATION
J4	JAMALGANJ

1.0 INVENTORY OF EXISTING WAREHOUSES

	Storage Capacity	No.of Units	Category
1.1 Constructed Warehouse	NIL		
1.2 Warehouse under construction	NIL		
1.3 Total	NIL		
1.4 Remarks			

2.0 NFSP REQUIREMENTS

2.1 New Storage Capacity Needed	1 500 Tons		
2.2 Storage Capacity For Construction	2 000 Tons		
2.3 Source of Supply:	Urea	TSP	MP
2.3.1 Dry Season (via Chhatak)	Fenchuganj	TSP Plant	Chittagong Port
2.3.2 Wet Season (via Chhatak)	Fenchuganj	TSP Plant	Chittagong Port
2.4 Major Mode of Delivery:	Urea	TSP	MP
2.4.1 Dry Season	Rail	Rail	Rail
2.4.2 Wet Season	Rail	Rail	Rail
2.5 Minor Mode of Delivery:	Cargo Launch/Country Boat from Chhatak		
2.6 Mode of Offtake:			
2.6.1 Major Mode	Country Boat		
2.6.2 Minor Mode	Bullock Cart		
2.6.3 Occasional Mode	Cargo Launch		

3.0 SITE SELECTION

3.1 Ownership	Private Land
3.2 Land Area	0.93 Acres
3.3 Site Operations	
3.3.1 Receiving fertilizer	Country Boat
3.3.2 Offtake of fertilizer	Country Boat, Bullock Cart & Cargo Launch.
3.4 Site Development Required:	Facilities for Country Boat to dock.

NFSP REF.	POP WAREHOUSE LOCATION
J5	SUNAMGANJ

1.0 INVENTORY OF EXISTING WAREHOUSES

		Storage Capacity	No.of Units	Category
1.1	Constructed Warehouse	NIL		
1.2	Warehouse under construction	NIL		
1.3	Total	NIL		
1.4	Remarks			

2.0 NFSP REQUIREMENTS

2.1	New Storage Capacity Needed	2 000 Tons		
2.2	Storage Capacity for Construction	2 000 Tons		
2.3	Source of Supply:	Urea	TSP	MP
2.3.1	Dry Season (via Chhatak)	Fenchuganj	TSP Plant	Chittagong Port
2.3.2	Wet Season (via Chhatak)	Fenchuganj	TSP Plant	Chittagong Port
2.4	Major Mode of Delivery:	Urea	TSP	MP
2.4.1	Dry Season	Rail	Rail	Rail
2.4.2	Wet Season	Rail	Rail	Rail
2.5	Minor Mode of Delivery:	Cargo Launch/Country Boat from Chhatak.		
2.6	Mode of Offtake:			
2.6.1	Major Mode	Country Boat, Truck, Bullock Cart		
2.6.2	Minor Mode	N/A		
2.6.3	Occasional Mode	N/A		

3.0 SITE SELECTION

3.1	Ownership	Private Land
3.2	Land Area	3.03 Acres
3.3	Site Operations	
3.3.1	Receiving fertilizer	Cargo Launch/Country Boat
3.3.2	Offtake of fertilizer	Country Boat, Truck, Bullock Cart
3.4	Site Development Required:	Fill required to raise platform above flood levels. Jetty facilities to receive cargo launch/country boat . Access to main highway.

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NFSP REF. **TRANSIT WAREHOUSE LOCATION**

J6T . CHHATAK

1.0 INVENTORY OF EXISTING WAREHOUSES

		Storage Capacity	No.of Units	Category
1.1	Constructed Warehouse	200 Tons	1	Additional
1.2	Warehouse under construction	0		
1.3	Total	200 Tons		

1.4 Remarks : Existing warehouse has no access to river & rail. Road access is not good. May have to consider abandoning existing warehouse when new warehouse is built.

2.0 NFSP REQUIREMENTS

2.1	New Storage Capacity Needed	1 000 Tons		
2.2	Storage Capacity for Construction	1 000 Tons		
2.3	Source of Supply:	Urea	TSP	MP
	2.3.1 Dry Season	Fenchuganj	TSP Plant	Chittagong
	2.3.2 Wet Season	Fenchuganj	TSP Plant	Chittagong
2.4	Major Mode of Delivery:	Urea	TSP	MP
	2.4.1 Dry Season	Rail	Rail	Rail
	2.4.2 Wet Season	Rail	Rail	Rail
2.5	Minor Mode of Delivery:	N/A		
2.6	Mode of Offtake:			
	2.6.1 Major Mode	Cargo Launch/Country Boat		
	2.6.2 Minor Mode	N/A		
	2.6.3 Occasional Mode	N/A		

3.0 SITE SELECTION

3.1	Ownership	
3.2	Land Area	
3.3	Site Operations	
	3.3.1 Receiving fertilizer	MG Rail
	3.3.2 Offtake of fertilizer	Cargo Launch/Country Boat
3.4	Site Development Required:	Rail sidings to warhouse site. Access to river for loading to Cargo Launch/Country Boat. Fill to raise platform above flood levels.

NFSP REF.	PDP WAREHOUSE LOCATION
J7	SYLHET

1.0 INVENTORY OF EXISTING WAREHOUSES

		Storage Capacity	No.of Units	Category
1.1	Constructed Warehouse	1 000 Tons	1	Big & Inter.
1.2	Warehouse under construction	0		
1.3	Total	1 000 Tons		

1.4 Remarks : Existing warehouse has no rail siding facilities.

2.0 NFSP REQUIREMENTS

2.1	New Storage Capacity Needed	2 500 Tons		
2.2	Storage Capacity for Construction	2 000 Tons		
2.3	Source of Supply:	Urea	TSP	MP
2.3.1	Dry Season	Fenchuganj	TSP Plant	Chittagong Port
2.3.2	Wet Season	Fenchuganj	TSP Plant	Chittagong Port
2.4	Major Mode of Delivery:	Urea	TSP	MP
2.4.1	Dry Season	Rail	Rail	Rail
2.4.2	Wet Season	Rail	Rail	Rail
2.5	Minor Mode of Delivery:	N/A		
2.6	Mode of Offtake:			
2.6.1	Major Mode	Truck, Bullock Cart		
2.6.2	Minor Mode	Country Boat		
2.6.3	Occasional Mode	N/A		

3.0 SITE SELECTION

3.1	Ownership	
3.2	Land Area	
3.3	Site Operations	
3.3.1	Receiving fertilizer	MG Rail
3.3.2	Offtake of fertilizer	Truck & Bullock Cart
3.4	Site Development Required:	Rail siding facilities. Road access to highway level crossing gate. Fill to raise platform above flood levels.

NFSP REF. PDP WAREHOUSE LOCATION

J8 SRIMANGAL

1.0 INVENTORY OF EXISTING WAREHOUSES

		Storage Capacity	No.of Units	Category
1.1	Constructed Warehouse	1 000 Tons	1	Hardcore
1.2	Warehouse under construction	0		
1.3	Total	1 000 Tons		

1.4 Remarks : Existing warehouse adequate for operation as PDP . No new construction planned.

2.0 NFSP REQUIREMENTS

2.1	New Storage Capacity Needed	1 500 Tons		
2.2	Storage Capacity for Construction	NIL		
2.3	Source of Supply:	Urea	TSP	MP
	2.3.1 Dry Season	Fenchuganj	TSP Plant	Chittagong
	2.3.2 Wet Season	Fenchuganj	TSP Plant	Chittagong
2.4	Major Mode of Delivery:	Urea	TSP	MP
	2.4.1 Dry Season	Rail	Rail	Rail
	2.4.2 Wet Season	Rail	Rail	Rail
2.5	Minor Mode of Delivery:	N/A		
2.6	Mode of Offtake:			
	2.6.1 Major Mode	Truck, Bullock Cart		
	2.6.2 Minor Mode	N/A		
	2.6.3 Occasional Mode	N/A		

3.0 SITE SELECTION

3.1	Ownership	N/A
3.2	Land Area	N/A
3.3	Site Operations	
	3.3.1 Receiving fertilizer	MG Rail
	3.3.2 Offtake of fertilizer	Truck, Bullock Cart
3.4	Site Development Required:	N/A

NFSP REF. PDP WAREHOUSE LOCATION

K1 , RAJSHAHI

1.0 INVENTORY OF EXISTING WAREHOUSES

		Storage Capacity	No.of Units	Category
1.1	Constructed Warehouse	1 000 Tons	1	Big & Inter.
1.2	Warehouse under construction	0		
1.3	Total	1 000 Tons		

1.4 Remarks : Existing warehouse is away from new warehouse. It has no rail siding facilities. May consider existing warehouse for other uses such as storing seeds.

2.0 NFSP REQUIREMENTS

2.1	New Storage Capacity Needed	10 500 Tons		
2.2	Storage Capacity for Construction	8 000 Tons		
2.3	Source of Supply:	Urea	(TSP +	MP)
2.3.1	Dry Season	Ghorasal/Santahar	Chalna/Shiromoni	
2.3.2	Wet Season	Ghorasal/Santahar	Chalna/Shiromoni	
2.4	Major Mode of Delivery:	Urea (Via Santahar)	TSP(From Shiromoni)	MP(From Shiromoni)
2.4.1	Dry Season	Rail	Rail	Rail
2.4.2	Wet Season	Rail	Rail	Rail
2.5	Minor Mode of Delivery:	N/A		
2.6	Mode of Offtake:			
2.6.1	Major Mode	Truck		
2.6.2	Minor Mode	Bullock Cart		
2.6.3	Occasional Mode	Rail		

3.0 SITE SELECTION

3.1	Ownership	Railway Land
3.2	Land Area	5.24 Acres
3.3	Site Operations	
3.3.1	Receiving fertilizer	BG Rail (Siding existing)
3.3.2	Offtake of fertilizer	Truck & Bullock Cart
3.4	Site Development Required:	Siding facilities. Road access required. Fill to raise platform above flood levels.

NFSP REF. PDP WAREHOUSE LOCATION

K2 . AMNURA

1.0 INVENTORY OF EXISTING WAREHOUSES

		Storage Capacity	No.of Units	Category
1.1	Constructed Warehouse	NIL		
1.2	Warehouse under construction	NIL		
1.3	Total	NIL		
1.4	Remarks			

2.0 NFSP REQUIREMENTS

2.1	New Storage Capacity Needed	5 500 Tons		
2.2	Storage Capacity for Construction	6 000 Tons		
2.3	Source of Supply:	Urea	(TSP +	MP)
2.3.1	Dry Season	Ghorasal/Santahar.	Chalna/Shiromoni	
2.3.2	Wet Season	Ghorasal/Santahar.	Chalna/Shiromoni	
2.4	Major Mode of Delivery:	Urea (Via Santahar)	TSP (From Shiromoni)	MP (From Shiromoni)
2.4.1	Dry Season	Rail	Rail	Rail
2.4.2	Wet Season	Rail	Rail	Rail
2.5	Minor Mode of Delivery:	N/A		
2.6	Mode of Offtake:			
2.6.1	Major Mode	Bullock Cart		
2.6.2	Minor Mode	N/A		
2.6.3	Occasional Mode	N/A		

3.0 SITE SELECTION

3.1	Ownership	Railway Land
3.2	Land Area	3.98 Acres
3.3	Site Operations	
3.3.1	Receiving fertilizer	BG Rail
3.3.2	Offtake of fertilizer	Bullock Cart/Truck
3.4	Site Development Required:	Rail siding facilities. Fill to raise platform above flood levels.

NFSP REF. PDP WAREHOUSE LOCATION

K3 ROHANPUR

1.0 INVENTORY OF EXISTING WAREHOUSES

		Storage Capacity	No.of Units	Category
1.1	Constructed Warehouse	NIL		
1.2	Warehouse under construction	NIL		
1.3	Total	NIL		

1.4 Remarks: Rohanpur is very remote, accessable by rail. Main mode of communication is bullock carts.

2.0 NFSP REQUIREMENTS

2.1	New Storage Capacity Needed	5 000 Tons	
2.2	Storage Capacity for Construction	6 000 Tons	
2.3	Source of Supply:	Urea	(TSP + MP)
2.3.1	Dry Season	Ghoraseal/Santahar	Chalna/Shiromoni
2.3.2	Wet Season	Ghoraseal/Santahar	Chalna/Shiromoni
2.4	Major Mode of Delivery:	Urea (Via Santahar)	(TSP + MP)
2.4.1	Dry Season	BG Rail	Unit Train (From Shiromoni)
2.4.2	Wet Season	BG Rail	Unit Train (From Shiromoni)
2.5	Minor Mode of Delivery:	N/A	
2.6	Mode of Offtake:		
2.6.1	Major Mode	Bullock Cart	
2.6.2	Minor Mode	Country Boat	
2.6.3	Occasional Mode	N/A	

3.0 SITE SELECTION

3.1	Ownership	Railway Property
3.2	Land Area	4.55 Acres
3.3	Site Operations	
3.3.1	Receiving fertilizer	BG Rail
3.3.2	Offtake of fertilizer	Bullock Cart & Country Boat

3.4 Site Development Required: Rail siding facilities. Access to river for off-takes by country boats. No fill required.

NFSP REF. PDP WAREHOUSE LOCATION

K4 NATORE

1.0 INVENTORY OF EXISTING WAREHOUSES

		Storage Capacity	No.of Units	Category
1.1	Constructed Warehouse	200 Tons	1	Additional
1.2	Warehouse under construction	0		
1.3	Total	200 Tons		

1.4 Remarks: Existing godown has no rail facilities and is away from new godown site. May consider abandoning existing warehouse from PDP use.

2.0 NFSP REQUIREMENTS

2.1	New Storage Capacity Needed	9 000 Tons		
2.2	Storage Capacity for Construction	8 000 Tons		
2.3	Source of Supply:	Urea	(TSP +	MP)
2.3.1	Dry Season	Ghorasal/Santahar	Chalna/Shiromoni	
2.3.2	Wet Season	Ghorasal/Santahar	Chalna/Shiromoni	
2.4	Major Mode of Delivery:	Urea (via Santahar)	TSP (From Shiromoni)	MP (From Shiromoni)
2.4.1	Dry Season	Rail	Rail	Rail
2.4.2	Wet Season	Rail	Rail	Rail
2.5	Minor Mode of Delivery:	N/A		
2.6	Mode of Offtake:			
2.6.1	Major Mode	Truck		
2.6.2	Minor Mode	Bullock Cart		
2.6.3	Occasional Mode	N/A		

3.0 SITE SELECTION

3.1	Ownership	Railway Land
3.2	Land Area	9.11 Acres
3.3	Site Operations	
3.3.1	Receiving fertilizer	BG Rail
3.3.2	Offtake of fertilizer	Truck & Bullock Cart
3.4	Site Development Required:	Access road to Rajshahi-Natore Trunk Road to be built. Rail siding facilities.

NFSP REF. POP WAREHOUSE LOCATION
K5 ATRAI

1.0 INVENTORY OF EXISTING WAREHOUSES

		Storage Capacity	No. of Units	Category
1.1	Constructed Warehouse	500 Tons	1	Big & Inter.
1.2	Warehouse under construction	0		
1.3	Total	500 Tons		
1.4	Remarks			

2.0 NFSP REQUIREMENTS

2.1	New Storage Capacity Needed	4 500 Tons		
2.2	Storage Capacity for Construction	3 000 Tons		
2.3	Source of Supply:	Urea	(TSP +	MP)
2.3.1	Dry Season	Ghorasal/Santahar	Chalna/Shiromoni	
2.3.2	Wet Season	Ghorasal/Santahar	Chalna/Shiromoni	
2.4	Major Mode of Delivery:	Urea (via Santahar)	TSP (From Shiromoni)	MP (From Shiromoni)
2.4.1	Dry Season	Rail	Rail	Rail
2.4.2	Wet Season	Rail	Rail	Rail
2.5	Minor Mode of Delivery:	By barge from Baghabari if river is dredged		
2.6	Mode of Offtake:			
2.6.1	Major Mode	Country Boat		
2.6.2	Minor Mode	Bullock Cart		
2.6.3	Occasional Mode	N/A		

3.0 SITE SELECTION

3.1	Ownership	Railway Land
3.2	Land Area	2.25 Acres
3.3	Site Operations	
3.3.1	Receiving fertilizer	BG Rail
3.3.2	Offtake of fertilizer	Country Boat, Bullock Cart.
3.4	Site Development Required:	Rail siding facilities. Access to river. Fill to raise platform above flood levels Access to road (± 100' long).

NFSP REF. PDP WAREHOUSE LOCATION

L1 RANGPUR

1.0 INVENTORY OF EXISTING WAREHOUSES

		Storage Capacity	No.of Units	Category
		500 Tons	1	Big & Inter
1.1	Constructed Warehouse	200 Tons	1	Additional
1.2	Warehouse under construction	3 000 Tons	1	USAID Phase I
1.3	Total	3 700 Tons		

1.4 Remarks : All three existing warehouses have no rail siding facilities and are in different locations. May have to consider abandoning the 200 Ton & 500Ton warehouses when the new warehouse is built.

2.0 NFSP REQUIREMENTS

2.1	New Storage Capacity Needed	10 500 Tons		
2.2	Storage Capacity for Construction	10 000 Tons (Only 4000 Tons due to site limitations)		
2.3	Source of Supply:	Urea	(TSP +	MP)
2.3.1	Dry Season	Ashuganj	Chalna/Shiromoni/Parbatipur	
2.3.2	Wet Season	Ashuganj	Chalna/Shiromoni/Parbatipur	
2.4	Major Mode of Delivery:	Urea	TSP	MP
2.4.1	Dry Season	Unit Train	Rail	Rail
2.4.2	Wet Season	Unit Train	Rail	Rail
2.5	Minor Mode of Delivery:	N/A		
2.6	Mode of Offtake:			
2.6.1	Major Mode	Truck, Bullock Cart		
2.6.2	Minor Mode	N/A		
2.6.3	Occasional Mode	N/A		

3.0 SITE SELECTION

3.1	Ownership	Railway Property
3.2	Land Area	3.52 Acres
3.3	Site Operations	
3.3.1	Receiving fertilizer	MG Rail
3.3.2	Offtake of fertilizer	Truck, Bullock Cart
3.4	Site Development Required:	Rail siding facilities. Road access. Fill to raise platform above flood levels. Another site to be chosen to construct the balance 6000 Tons with rail siding facilities.

NFSP REF. PDP WAREHOUSE LOCATION

L2 . LALMONIRHAT

1.0 INVENTORY OF EXISTING WAREHOUSES

		Storage Capacity	No.of Units	Category
1.1	Constructed Warehouse	500 Tons	1	Big & Inter
1.2	Warehouse under construction	0		
1.3	Total	500 Tons		

1.4 Remarks : Existing warehouse has no rail siding facilities. Site not available in Lalmonirhat. Substitute site found at Mahendranagar with rail siding facilities. Existing warehouse used as PDP and serves same area as Mahendranagar PDP.

2.0 NFSP REQUIREMENTS

2.1	New Storage Capacity Needed	N/A		
2.2	Storage Capacity for Construction	N/A		
2.3	Source of Supply:	Urea	(TSP +	MP)
2.3.1	Dry Season (via Mahendranagar)	Ghorasal	Chalna/Shiromoni/Parbatipur	
2.3.2	Wet Season (via Mahendranagar)	Ghorasal	Chalna/Shiromoni/Parbatipur	
2.4	Major Mode of Delivery:	Urea	TSP	MP
2.4.1	Dry Season	Rail	Rail	Rail
2.4.2	Wet Season	Rail	Rail	Rail
2.5	Minor Mode of Delivery:	Truck from Mahendranagar Railway Station.		
2.6	Mode of Offtake:			
2.6.1	Major Mode	Truck, Bullock Cart		
2.6.2	Minor Mode	Rail		
2.6.3	Occasional Mode	Country Boat		

3.0 SITE SELECTION

3.1	Ownership	N/A
3.2	Land Area	N/A
3.3	Site Operations	
3.3.1	Receiving fertilizer	Truck
3.3.2	Offtake of fertilizer	Truck, Bullock Cart
3.4	Site Development Required:	N/A

NFSP REF.	PDP WAREHOUSE LOCATION
L3	SAIDPUR

1.0 INVENTORY OF EXISTING WAREHOUSES

		Storage Capacity	No.of Units	Category
1.1	Constructed Warehouse	400 Tons	1	Additional
1.2	Warehouse under construction	2 000 Tons	1	Hardcore
1.3	Total	2 400 Tons		

1.4 Remarks : Existing 2000 Tons warehouse to be integrated with proposed warehouse. Use of MG Railway track from Parbatipur to Saidpur Repair Yard for Urea movement to eliminate transhipment needs at Parbatipur.

2.0 NFSP REQUIREMENTS

2.1	New Storage Capacity Needed	7 000 Tons		
2.2	Storage Capacity for Construction	5 000 Tons		
2.3	Source of Supply:	Urea (via Parbatipur)	(TSP +	MP)
2.3.1	Dry Season	Ashuganj	Chalna/Shiromoni	
2.3.2	Wet Season	Ashuganj	Chalna/Shiromoni	
2.4	Major Mode of Delivery:	Urea	TSP	MP
2.4.1	Dry Season	Rail	Rail	Rail
2.4.2	Wet Season	Rail	Rail	Rail
2.5	Minor Mode of Delivery:	Truck from Saidpur Railway Station.		
2.6	Mode of Offtake:			
2.6.1	Major Mode	Truck		
2.6.2	Minor Mode	Bullock Cart		
2.6.3	Occasional Mode	N/A		

3.0 SITE SELECTION

3.1	Ownership	BADC owned Land - Govt.owned Road
3.2	Land Area	2.60 - 0.07 = 2.53 Acres.
3.3	Site Operations	
3.3.1	Receiving fertilizer	Truck
3.3.2	Offtake of fertilizer	Truck & Bullock Cart
3.4	Site Development Required:	± 6 ft. fill is required. Paved access road connecting Nilphamari Road to be built.

NFSP REF. PDP WAREHOUSE LOCATION

L4 . DOMAR

1.0 INVENTORY OF EXISTING WAREHOUSES

	Storage Capacity	No.of Units	Category
1.1 Constructed Warehouse	NIL		
1.2 Warehouse under construction	NIL		
1.3 Total	NIL		
1.4 Remarks			

2.0 NFSP REQUIREMENTS

2.1 New Storage Capacity Needed	6 500 Tons		
2.2 Storage Capacity for Construction	4 000 Tons		
2.3 Source of Supply:	Urea(via Parbatipur)	(TSP +	MP)
2.3.1 Dry Season	Ashuganj	Chalna/Shiromoni	
2.3.2 Wet Season	Ashuganj	Chalna/Shiromoni	
2.4 Major Mode of Delivery:	Urea	TSP (From Shiromoni)	MP (From Shiromoni)
2.4.1 Dry Season	Rail	U.T. Rail	U.T. Rail
2.4.2 Wet Season	Rail	U.T. Rail	U.T. Rail
2.5 Minor Mode of Delivery:	N/A		
2.6 Mode of Offtake:			
2.6.1 Major Mode	Truck, Bullock Cart		
2.6.2 Minor Mode	N/A		
2.6.3 Occasional Mode	N/A		

3.0 SITE SELECTION

3.1 Ownership	
3.2 Land Area	
3.3 Site Operations	
3.3.1 Receiving fertilizer	BG Rail
3.3.2 Offtake of fertilizer	Truck & Bullock Cart
3.4 Site Development Required:	Rail siding facilities. Road access to highway. Fill to raise platform above flood levels.

NFSP REF. PDP WAREHOUSE LOCATION
L5 KURIGRAM

1.0 INVENTORY OF EXISTING WAREHOUSES

		Storage Capacity	No.of Units	Category
1.1	Constructed Warehouse	200 Tons	1	Additional
1.2	Warehouse under construction	2 000 Tons	1	USAID PHASE I
1.3	Total	2 200 Tons		

1.4 Remarks : Both existing godowns have no rail siding facilties. Site not available in Kurigram. Substitute site found at Mahendranagar with rail siding facilities. Existing godown used as PDP and serves same area as Mahendranagar PDP.

2.0 NFSP REQUIREMENTS

2.1	New Storage Capacity Needed	N/A		
2.2	Storage Capacity for Construction	N/A		
2.3	Source of Supply:	Urea	(TSP +	MP)
2.3.1	Dry Season (via Mahendranagar)	Ghorasal	Chalna/Shiromoni/Parbatipur	
2.3.2	Wet Season (via Mahendranagar)	Ghorasal	Chalna/Shiromoni/Parbatipur	
2.4	Major Mode of Delivery:	Urea	TSP	MP
2.4.1	Dry Season	Rail	Rail	Rail
2.4.2	Wet Season	Rail	Rail	Rail
2.5	Minor Mode of Delivery:	Truck from Mahendranagar Railway Station		
2.6	Mode of Offtake:			
2.6.1	Major Mode	Truck, Bullock Cart		
2.6.2	Minor Mode	Rail		
2.6.3	Occasional Mode	Country Boat		

3.0 SITE SELECTION

3.1	Ownership	N/A
3.2	Land Area	N/A
3.3	Site Operations	
3.3.1	Receiving fertilizer	Truck
3.3.2	Offtake of fertilizer	Truck, Bullock Cart
3.4	Site Development Required:	N/A

NFSP REF. **PDP WAREHOUSE LOCATION**

L6 GAIBANDHA

1.0 INVENTORY OF EXISTING WAREHOUSES

		Storage Capacity	No.of Units	Category
1.1	Constructed Warehouse	1000 x 4 = 4 000 Tons	4	Ex-BWC
1.2	Warehouse under construction	2 000 Tons	1	USAID Phase 1
1.3	Total	0 6 000 Tons		

1.4 Remarks: Existing warehouses have no rail siding facilities and are spread out in two locations. New warehouse site has rail siding facilities.

2.0 NFSP REQUIREMENTS

2.1	New Storage Capacity Needed	7 000 Tons		
2.2	Storage Capacity for Construction	8 000 Tons		
2.3	Source of Supply:	Urea	(TSP +	MP)
2.3.1	Dry Season	Ghorasal & Ashuganj	Chalna/Shiromoni/Santahar	
2.3.2	Wet Season	Ghorasal & Ashuganj	Chalna/Shiromoni/Santahar	
2.4	Major Mode of Delivery:	Urea	TSP	MP
2.4.1	Dry Season	UT Rail	Rail	Rail
2.4.2	Wet Season	UT Rail	Rail	Rail
2.5	Minor Mode of Delivery:	N/A		
2.6	Mode of Offtake:			
2.6.1	Major Mode	Truck		
2.6.2	Minor Mode	Bullock Cart		
2.6.3	Occasional Mode	N/A		

3.0 SITE SELECTION

3.1	Ownership	Railway Property
3.2	Land Area	11.86 Acres
3.3	Site Operations	
3.3.1	Receiving fertilizer	MG Rail
3.3.2	Offtake of fertilizer	Truck, Bullock Cart.
3.4	Site Development Required:	Rail siding facilities. Filling to raise platform above flood levels.

NFSP REF.	PDP WAREHOUSE LOCATION
L7	MAHENDRANAGAR

1.0 INVENTORY OF EXISTING WAREHOUSES

		Storage Capacity	No.of Units	Category
1.1	Constructed Warehouse	NIL		
1.2	Warehouse under construction	NIL		
1.3	Total	NIL		

1.4 Remarks : Site substitutes both Lalmonirhat & Kurigram.

2.0 NFSP REQUIREMENTS

2.1	New Storage Capacity Needed	13 000 Tons		
2.2	Storage Capacity for Construction	12 000 Tons		
2.3	Source of Supply:	Urea	(TSP +	MP)
2.3.1	Dry Season	Ghorasal	Chalna/Shiromoni/Parbatipu	
2.3.2	Wet Season	Ghorasal	Chalna/Shiromoni/Parbatipur	
2.4	Major Mode of Delivery:	Urea	TSP	MP
2.4.1	Dry Season	Rail	Rail	Rail
2.4.2	Wet Season	Rail	Rail	Rail
2.5	Minor Mode of Delivery:	N/A		
2.6	Mode of Offtake:			
2.6.1	Major Mode	Truck		
2.6.2	Minor Mode	Bullock Cart		
2.6.3	Occasional Mode	N/A		

3.0 SITE SELECTION

3.1	Ownership	Railway Land
3.2	Land Area	5.93 Acres
3.3	Site Operations	
3.3.1	Receiving fertilizer	MG Rail
3.3.2	Offtake of fertilizer	Truck, Bullock Cart
3.4	Site Development Required:	Rail siding facilities, Road access to site.Land fill above flood levels.

NFSP REF. **PDP CUM TRANSIT WAREHOUSE LOCATION**

M1 SANTAHAR

1.0 INVENTORY OF EXISTING WAREHOUSES

		Storage Capacity	No.of Units	Category
		1 000 x 2= 2 000 Tons	2	Big & Inter
1.1	Constructed Warehouse	1 000 Tons	1	USAID Phase 1
1.2	Warehouse under construction	400 Tons*	1	Additional
		2 000 Tons*	1	Hardcore
1.3	Total	5 400 Tons		

1.4 Remarks : Major rail transit center for Northwest Zone serving as transit for Bogra, Gaibandha, Joypurhat, Atrai, Natore, Rohanpur, Amura, Rajshahi Muladuli and Sirajganj. Existing warehouses to be abandoned from PDP use when Santahar is built.

2.0 NFSP REQUIREMENTS

2.1	New Storage Capacity Needed	28 000 Tons	(including 13 500 Tons transit capacity)
2.2	Storage Capacity for Construction	16 000 Tons	
2.3	Source of Supply:	Urea	(TSP + MP)
	2.3.1 Dry Season	Ghorasal	Chalna/Shiromoni
	2.3.2 Wet Season	Ghorasal	Chalna/Shiromoni
2.4	Major Mode of Delivery:	Urea	(TSP + MP)
	2.4.1 Dry Season (Unit Trains)	MG Rail	BG Rail
	2.4.2 Wet Season (Unit Trains)	MG Rail	BG Rail
2.5	Minor Mode of Delivery:	N/A	
2.6	Mode of Offtake:		
	2.6.1 Major Mode	Truck, Rail for transfer	
	2.6.2 Minor Mode	Bullock Cart	
	2.6.3 Occasional Mode	N/A	

3.0 SITE SELECTION

3.1	Ownership	Railway Property
3.2	Land Area	30.03 Acres
3.3	Site Operations	
	3.3.1 Receiving fertilizer	BG Rail & MG Rail (Unit Trains)
	3.3.2 Offtake of fertilizer	BG Rail & MG Rail (Normal Trains) & Truck, Bullock Cart.
3.4	Site Development Required:	Major rail siding facilities for direct BG to MG transfer and also MG to BG transfer. Access for truck to offtakes. Fill required.

* Located at Naogaon.

NFSP REF. **PDP WAREHOUSE LOCATION**

M2 JOYPURHAT

1.0 INVENTORY OF EXISTING WAREHOUSES

		Storage Capacity	No.of Units	Category
1.1	Constructed Warehouse	400 Tons	1	Additional
1.2	Warehouse under construction	2 000 Tons	1	Hardcore
1.3	Total	2 400 Tons		

1.4 Remarks : Existing warehouses have no rail siding facilities.

2.0 NFSP REQUIREMENTS

2.1	New Storage Capacity Needed	6 500 Tons		
2.2	Storage Capacity for Construction	5 000 Tons		
2.3	Source of Supply:	Urea	(TSP +	MP)
2.3.1	Dry Season	Ghorasal/Santahar	Chalna/Shiromoni	
2.3.2	Wet Season	Ghorasal/Santahar	Chalna/Shiromoni	
2.4	Major Mode of Delivery:	Urea(From Santahar)	TSP(From Shiromoni)	MP(From Shiromoni)
2.4.1	Dry Season	N.T. Rail	U.T. Rail	U.T. Rail
2.4.2	Wet Season	N.T. Rail	U.T. Rail	U.T. Rail
2.5	Minor Mode of Delivery:	N/A		
2.6	Mode of Offtake:			
2.6.1	Major Mode	Truck, Bullock Cart		
2.6.2	Minor Mode	N/A		
2.6.3	Occasional Mode	N/A		

3.0 SITE SELECTION

3.1	Ownership	Railway + Private Land
3.2	Land Area	2.21 + 4.10 = 6.31 Acres
3.3	Site Operations	
3.3.1	Receiving fertilizer	BG Rail
3.3.2	Offtake of fertilizer	Truck & Bullock Cart
3.4	Site Development Required:	Rail siding facilities. Road access to highway. Fill to raise platform above flood levels.

NFSP REF.	POP WAREHOUSE LOCATION
M3	BOGRA

1.0 INVENTORY OF EXISTING WAREHOUSES

		Storage Capacity	No.of Units	Category
1.1	Constructed Warehouse	500 Tons	1	Big & Inter
1.2	Warehouse under construction	2 000 Tons	1	Hardcore
1.3	Total	2 500 Tons		

1.4 Remarks : Existing warehouses have no rail siding facilities. May have to consider for other users when new wareshouse is built.

2.0 NFSP REQUIREMENTS

2.1	New Storage Capacity Needed	20 000 Tons		
2.2	Storage Capacity for Construction	12 000 Tons		
2.3	Source of Supply:	Urea	(TSP +	MP)
2.3.1	Dry Season	Ghorasal/Santahar	Chalna/Shiromoni	
2.3.2	Wet Season	Ghorasal/Santahar	Chalna/Shiromoni	
2.4	Major Mode of Delivery:	Urea	TSP (From Shiromoni)	MP (From Shiromoni)
2.4.1	Dry Season	Rail	Rail	Rail
2.4.2	Wet Season	Rail	Rail	Rail
2.5	Minor Mode of Delivery:	Truck from Baghabari also possible		
2.6	Mode of Offtake:			
2.6.1	Major Mode	Truck		
2.6.2	Minor Mode	Bullock Cart		
2.6.3	Occasional Mode	N/A		

3.0 SITE SELECTION

3.1	Ownership	Private Land
3.2	Land Area	
3.3	Site Operations	
3.3.1	Receiving fertilizer	MG Rail
3.3.2	Offtake of fertilizer	Truck & Bullock Cart
3.4	Site Development Required:	Rail siding facilities (7450' long) 800' long road access to highway. Fill to raise platform above flood levels.

NFSP REF. **POP CUM TRANSIT WAREHOUSE LOCATION**

N1 MULADULI

1.0 INVENTORY OF EXISTING WAREHOUSES

		Storage Capacity	No.of Units	Category
1.1	Constructed Warehouse	2x500= 1 000 Tons	2	Big & Inter
1.2	Warehouse under construction	0		
1.3	Total	1 000 Tons		

1.4 Remarks: Located at Ishurdi with no rail facilities. May be abandoned from POP use when new warehouse is built.

2.0 NFSP REQUIREMENTS

2.1	New Storage Capacity Needed	6 000 Tons (Including 4 500 Tons Transit Capacity)
2.2	Storage Capacity for Construction	5 000 Tons
2.3	Source of Supply:	Urea (Via Santahar) (TSP + MP)
	2.3.1 Dry Season	Ghorasal Chalna/Shiromoni
	2.3.2 Wet Season	Ghorasal Chalna/Shiromoni
2.4	Major Mode of Delivery:	Urea TSP(From Shiromoni) MP(From Shiromoni)
	2.4.1 Dry Season	Rail Rail Rail
	2.4.2 Wet Season	Rail Rail Rail
2.5	Minor Mode of Delivery:	Truck, Normal Train
2.6	Mode of Offtake:	
	2.6.1 Major Mode	Truck
	2.6.2 Minor Mode	Bullock Cart
	2.6.3 Occasional Mode	N/A

3.0 SITE SELECTION

3.1	Ownership	Railway Property
3.2	Land Area	4.80 Acres
3.3	Site Operations	
	3.3.1 Receiving fertilizer	BG Rail
	3.3.2 Offtake of fertilizer	Truck/Bullock Cart
3.4	Site Development Required:	Road access to Natore Road to be built. Rail siding facilities to be built.

NFSP REF. **PDP WAREHOUSE LOCATION**

N2 · **PABNA**

1.0 INVENTORY OF EXISTING WAREHOUSES

		Storage Capacity	No.of Units	Category
1.1	Constructed Warehouse	200 Tons	1	Additional
1.2	Warehouse under construction	0		
1.3	Total	200 Tons		

1.4 Remarks : New warehouse site is away from existing warehouse. Should consider abandoning existing warehouse when new one is built.

2.0 NFSP REQUIREMENTS

2.1	New Storage Capacity Needed	4 500 Tons		
2.2	Storage Capacity for Construction	2 000 Tons		
2.3	Source of Supply:	Urea	(TSP +	MP)
2.3.1	Dry Season (Via Muladuli)	Ghorasal	Chalna/Shiromoni	
2.3.2	Wet Season (Via Muladuli)	Ghorasal	Chalna/Shiromoni	
2.4	Major Mode of Delivery:	Urea	TSP	MP
2.4.1	Dry Season	Rail	Rail	Rail
2.4.2	Wet Season	Rail	Rail	Rail
2.5	Minor Mode of Delivery:	Truck from Muladuli		
2.6	Mode of Offtake:			
2.6.1	Major Mode	Truck		
2.6.2	Minor Mode	Bullock Cart		
2.6.3	Occasional Mode	N/A		

3.0 SITE SELECTION

3.1	Ownership	Private Land
3.2	Land Area	2.77 Acres
3.3	Site Operations	
3.3.1	Receiving fertilizer	Truck
3.3.2	Offtake of fertilizer	Truck, Bullock Cart
3.4	Site Development Required:	Fill to raise platform above flood level. Road access to main road.

NFSP REF. **POP CUM TRANSIT WAREHOUSE LOCATION**

N3 . BAGHABARI

1.0 INVENTORY OF EXISTING WAREHOUSES

		Storage Capacity	No.of Units	Category
1.1	Constructed Warehouse	NIL		
1.2	Warehouse under construction	NIL		
1.3	Total	NIL		
1.4	Remarks			

2.0 NFSP REQUIREMENTS

2.1	New Storage Capacity Needed	7 000 Tons (including 2000 Tons transit capacity)		
2.2	Storage Capacity for Construction	4 000 Tons		
2.3	Source of Supply:	Urea	TSP	MP
2.3.1	Dry Season	Ashuganj	Chittagong	Chalna
2.3.2	Wet Season	Ghorasal	Chittagong	Chalna
2.4	Major Mode of Delivery:	Urea	TSP	MP
2.4.1	Dry Season	Barge	Barge	Barge
2.4.2	Wet Season	Barge	Barge	Barge
2.5	Minor Mode of Delivery:	N/A		
2.6	Mode of Offtake:			
2.6.1	Major Mode	Truck, Bullock Cart		
2.6.2	Minor Mode	Country Boat		
2.6.3	Occasional Mode	N/A		

3.0 SITE SELECTION

3.1	Ownership	Land leased from BIWTA
3.2	Land Area	
3.3	Site Operations	
3.3.1	Receiving fertilizer	Barge
3.3.2	Offtake of fertilizer	Truck, Country Boat & Bullock Cart
3.4	Site Development Required:	Movable conveyor system for high speed unloading from barges. Barge unloading facilities will be provided by BIWTA in their Baghabari Port Development Program. Land fill carried out by BIWTA.

NFSP REF. PDP WAREHOUSE LOCATION

N3A SHAHJADPUR

1.0 INVENTORY OF EXISTING WAREHOUSES

		Storage Capacity	No.of Units	Category
1.1	Constructed Warehouse	0		
1.2	Warehouse under construction	2 000 Tons	1	USAID Phase I
1.3	Total	2 000 Tons		

1.4 Remarks: Existing warehouse will be used as PDP serving same area as Baghabari. Relies on Baghabari for fertilizer supplies.

2.0 NFSP REQUIREMENTS

2.1	New Storage Capacity Needed	N/A		
2.2	Storage Capacity for Construction	N/A		
2.3	Source of Supply:	Urea	TSP	MP
2.3.1	Dry Season(Via Baghabari)	Ashuganj	Chittagong	Chalna
2.3.2	Wet Season(Via Baghabari)	Ghorasal	Chittagong	Chalna
2.4	Major Mode of Delivery:	Urea	TSP	MP
2.4.1	Dry Season(From Baghabari)	Truck	Truck	Truck
2.4.2	Wet Season(From Baghabari)	Truck	Truck	Truck
2.5	Minor Mode of Delivery:	Country Boat in Wet Season.		
2.6	Mode of Offtake:			
2.6.1	Major Mode	Truck		
2.6.2	Minor Mode	Bullock Cart		
2.6.3	Occasional Mode	Country Boat		

3.0 SITE SELECTION

3.1	Ownership	N/A
3.2	Land Area	N/A
3.3	Site Operations	
3.3.1	Receiving fertilizer	Truck
3.3.2	Offtake of fertilizer	Truck, Bullock Cart, Country Boat.
3.4	Site Development Required:	N/A

NFSP REF. PDP WAREHOUSE LOCATION

N4 . SIRAJGANJ

1.0 INVENTORY OF EXISTING WAREHOUSES

		Storage Capacity	No.of Units	Category
1.1	Constructed Warehouse	500 Tons	1	Big & Inter
1.2	Warehouse under construction	0		
1.3	Total	500 Tons		

1.4 Remarks : Existing warehouse has no rail siding facilities.

2.0 NFSP REQUIREMENTS

2.1	New Storage Capacity Needed	6 000 Tons		
2.2	Storage Capacity for Construction	6 000 Tons		
2.3	Source of Supply:	Urea (Via Santahar)	(TSP +	MP)
2.3.1	Dry Season	Ghorasal	Chalna/Shiromoni	
2.3.2	Wet Season	Ghorasal	Chalna/Shiromoni	
2.4	Major Mode of Delivery:	Urea	TSP (From Shiromoni)	MP (From Shiromoni)
2.4.1	Dry Season	Rail	Rail	Rail
2.4.2	Wet Season	Rail	Rail	Rail
2.5	Minor Mode of Delivery:	N/A		
2.6	Mode of Offtake:			
2.6.1	Major Mode	Truck, Bullock Cart		
2.6.2	Minor Mode	Country Boat		
2.6.3	Occasional Mode	N/A		

3.0 SITE SELECTION

3.1	Ownership	
3.2	Land Area	
3.3	Site Operations	
3.3.1	Receiving fertilizer	BG Rail
3.3.2	Offtake of fertilizer	Truck, Bullock Cart
3.4	Site Development Required:	

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NFSP REF. POP WAREHOUSE LOCATION
N5 . ULLAPARA

1.0 INVENTORY OF EXISTING WAREHOUSES

		Storage Capacity	No.of Units	Category
1.1	Constructed Warehouse	0		
1.2	Warehouse under construction	2 000 Tons	1	USAID Phase I
1.3	Total	2 000 Tons		
1.4	Remarks			

2.0 NFSP REQUIREMENTS

2.1	New Storage Capacity Needed	6 000 Tons		
2.2	Storage Capacity for Construction	2 000 Tons		
2.3	Source of Supply:	Urea	TSP	MP
2.3.1	Dry Season (Via Baghabari)	Ashuganj	Chalna	Chalna
2.3.2	Wet Season (Via Baghabari)	Ghorasal	Chalna	Chalna
2.4	Major Mode of Delivery:	Urea	TSP	MP
2.4.1	Dry Season (From Baghabari)	Truck	Truck	Truck
2.4.2	Wet Season (From Baghabari)	Truck	Truck	Truck
2.5	Minor Mode of Delivery:	By Rail		
2.6	Mode of Offtake:			
2.6.1	Major Mode	Truck & Bullock Cart		
2.6.2	Minor Mode	Country Boat		
2.6.3	Occasional Mode	Rail		

3.0 SITE SELECTION

3.1	Ownership	Railway Property
3.2	Land Area	4.11 Acres
3.3	Site Operations	
3.3.1	Receiving Fertilizer	Truck
3.3.2	Offtake of Fertilizer	Truck & Bullock Cart
3.4	Site Development Required:	Access to main highway. Fill to raise platform above flood levels.

NFSP REF.	POP WAREHOUSE LOCATION
01	DINAJPUR

1.0 INVENTORY OF EXISTING WAREHOUSES

		Storage Capacity	No.of Units	Category
1.1	Constructed Warehouse	1 000 Tons	1	Big & Inter
1.2	Warehouse under construction	0		
1.3	Total	1 000 Tons		

1.4 Remarks : New warehouse requires site with rail siding facilities but a site with such facilities was not available.

2.0 NFSP REQUIREMENTS

2.1	New Storage Capacity Needed	10 000 Tons		
2.2	Storage Capacity for Construction	4 000 Tons		
2.3	Source of Supply:	Urea	(TSP +	MP)
2.3.1	Dry Season	Ashuganj	Chalna/Shiromoni/Parbatipur	
2.3.2	Wet Season	Ashuganj	Chalna/Shiromoni/Parbatipur	
2.4	Major Mode of Delivery:	Urea	TSP	MP
2.4.1	Dry Season	U.T.Rail	N.T.Rail	N.T.Rail
2.4.2	Wet Season	U.T.Rail	N.T.Rail	N.T.Rail
2.5	Minor Mode of Delivery:	Truck from Railway Station(1½ miles)		
2.6	Mode of Offtake:			
2.6.1	Major Mode	Truck, Bullock Cart		
2.6.2	Minor Mode	N/A		
2.6.3	Occasional Mode	N/A		

3.0 SITE SELECTION

3.1	Ownership	BADC-owned site
3.2	Land Area	3.99 Acres
3.3	Site Operations	
3.3.1	Receiving fertilizer	MG Rail + Truck
3.3.2	Offtake of fertilizer	Truck, Bullock Cart
3.4	Site Development Required:	Road access. Not possible to have siding facilities.

NFSP REF. PDP WAREHOUSE LOCATION

02 SHIBGANJ

1.0 INVENTORY OF EXISTING WAREHOUSES

		Storage Capacity	No.of Units	Category
1.1	Constructed Warehouse	2 000 Tons	2	Ex-BWC
1.2	Warehouse under construction	0		
1.3	Total	2 000 Tons		
1.4	Remarks			

2.0 NFSP REQUIREMENTS

2.1	New Storage Capacity Needed	11 500 Tons		
2.2	Storage Capacity for Construction	10 000 Tons		
2.3	Source of Supply:	Urea	(TSP +	MP)
2.3.1	Dry Season	Ashuganj	Chalna/Shiromoni/Parbatipur	
2.3.2	Wet Season	Ashuganj	Chalna/Shiromoni/Parbatipur	
2.4	Major Mode of Delivery:	Urea	TSP(From Shiromoni)	MP (From Shiromoni)
2.4.1	Dry Season	U.T.Rail	N.T.Rail	N.T.Rail
2.4.2	Wet Season	U.T.Rail	N.T.Rail	N.T.Rail
2.5	Minor Mode of Delivery:	N/A		
2.6	Mode of Offtake:			
2.6.1	Major Mode	Truck		
2.6.2	Minor Mode	Bullock Cart		
2.6.3	Occasional Mode	N/A		

3.0 SITE SELECTION

3.1	Ownership	Railway Land + Private Land
3.2	Land Area	7.40 Acres
3.3	Site Operations	
3.3.1	Receiving fertilizer	MG Rail (Siding existing)
3.3.2	Offtake of fertilizer	Truck & Bullock Cart
3.4	Site Development Required:	Rail siding facilities. Access to main road. Fill to raise platform above flood levels.

NFSP REF. PDP WAREHOUSE LOCATION

03 PANCHAGAR

1.0 INVENTORY OF EXISTING WAREHOUSES

		Storage Capacity	No.of Units	Category
1.1	Constructed Warehouse	200 Tons	1	Additional
1.2	Warehouse under construction	0		
1.3	Total	200 Tons		

1.4 Remarks: Warehouse too small for PDP operation. May have to consider abandoning warehouse when new PDP warehouse is built.

2.0 NFSP REQUIREMENTS

2.1	New Storage Capacity Needed	6 000 Tons		
2.2	Storage Capacity for Construction	4 000 Tons		
2.3	Source of Supply:	Urea	(TSP +	MP)
2.3.1	Dry Season	Ashuganj	Chalna/Shiromoni/Parbatipur	
2.3.2	Wet Season	Ashuganj	Chalna/Shiromoni/Parbatipur	
2.4	Major Mode of Delivery:	Urea	TSP(From Shiromoni)	MP(From Shiromoni)
2.4.1	Dry Season	U.T.Rail	N.T.Rail	N.T.Rail
2.4.2	Wet Season	U.T.Rail	N.T.Rail	N.T.Rail
2.5	Minor Mode of Delivery:	N/A		
2.6	Mode of Offtake:			
2.6.1	Major Mode	Truck & Bullock Cart		
2.6.2	Minor Mode	N/A		
2.6.3	Occasional Mode	N/A		

3.0 SITE SELECTION

3.1	Ownership	Railway Land
3.2	Land Area	5.68 Acres
3.3	Site Operations	
3.3.1	Receiving fertilizer	MG Rail
3.3.2	Offtake of fertilizer	Truck & Bullock Cart
3.4	Site Development Required:	About 1/2 mile access road connecting C&B Trunk Road to be built. Existing rail sidings to be improved to serve site.

NFSP REF. **PDP WAREHOUSE LOCATION**

04 , CHARKAI

1.0 INVENTORY OF EXISTING WAREHOUSES

		Storage Capacity	No.of Units	Category
1.1	Constructed Warehouse	NIL		
1.2	Warehouse under construction	NIL		
1.3	Total	NIL		
1.4	Remarks			

2.0 NFSP REQUIREMENTS

2.1	New Storage Capacity Needed	7 000 Tons		
2.2	Storage Capacity for Construction	3 000 Tons		
2.3	Source of Supply:	Urea(via Parbatipur)	(TSP + MP)	
2.3.1	Dry Season	Ashuganj	Chalna/Shiromoni	
2.3.2	Wet Season	Ashuganj	Chalna/Shiromoni	
2.4	Major Mode of Delivery:	Urea	TSP	MP
2.4.1	Dry Season	N.T. Rail	U.T. Rail	U.T. Rail
2.4.2	Wet Season	N.T. Rail	U.T. Rail.	U.T. Rail.
2.5	Minor Mode of Delivery:	N/A		
2.6	Mode of Offtake:			
2.6.1	Major Mode	Truck		
2.6.2	Minor Mode	Bullock Cart		
2.6.3	Occasional Mode	N/A		

3.0 SITE SELECTION

3.1	Ownership	Railway Land
3.2	Land Area	3.95 Acres
3.3	Site Operations	
3.3.1	Receiving fertilizer	BG Rail
3.3.2	Offtake of fertilizer	Truck & Bullock Cart.
3.4	Site Development Required:	Rail sidings. Road access. Fill to raise platform above flood level.

NFSP REF. **TRANSIT WAREHOUSE LOCATION**

OST , PARBATIPUR

1.0 INVENTORY OF EXISTING WAREHOUSES

		Storage Capacity	No.of Units	Category
1.1	Constructed Warehouse	500 x 2 = 1 000 Tons	2	Big & Inter
1.2	Warehouse under construction	0		
1.3	Total	1 000 Tons		

1.4 Remarks: Major rail transit center for Northwest Zone serving as Transit for Panchagar, Shibganj, Dinajpur, Rangpur, Mahendranagar, Domar and Charkai.

2.0 NFSP REQUIREMENTS

2.1	New Storage Capacity Needed	8 500 Tons	
2.2	Storage Capacity for Construction	12,000 Tons	
2.3	Source of Supply:	Urea	(TSP + MP)
2.3.1	Dry Season	Ashuganj	Chalna/Shiromoni
2.3.2	Wet Season	Ashuganj	Chalna/Shiromoni
2.4	Major Mode of Delivery:	Urea	(TSP + MP)
2.4.1	Dry Season (Unit Train)	MG Rail	BG Rail
2.4.2	Wet Season (Unit Train)	MG Rail	BG Rail
2.5	Minor Mode of Delivery:	N/A	
2.6	Mode of Offtake:		
2.6.1	Major Mode	Rail for transfer	
2.6.2	Minor Mode	N/A	
2.6.3	Occasional Mode	N/A	

3.0 SITE SELECTION

3.1	Ownership	Railway + Private Property
3.2	Land Area	10.52 Acres + 13.49 Acres = 24.84 Acres
3.3	Site Operations	
3.3.1	Receiving fertilizer	BG Rail & MG Rail (Unit Trains)
3.3.2	Offtake of fertilizer	BG Rail & MG Rail (Normal Trains)
3.4	Site Development Required:	Major rail siding facilities for direct BG to MG transfer and also MG to BG transfer. Fill required.

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NFSP REF. **PDP WAREHOUSE LOCATION**

P1 SATKHIRA

1.0 INVENTORY OF EXISTING WAREHOUSES

		Storage Capacity	No.of Units	Category
1.1	Constructed Warehouse	500 Tons	1	Big & Inter.
1.2	Warehouse under construction	0 Tons		
1.3	Total	500 Tons		
1.4	Remarks:			

2.0 NFSP REQUIREMENTS

2.1	New Storage Capacity Needed	3 000 Tons		
2.2	Storage Capacity for Construction	3 000 Tons		
2.3	Source of Supply:	Urea	(TSP +	MP)
2.3.1	Dry Season	Chalna	Chalna	
2.3.2	Wet Season	Ashuganj	Chalna	
2.4	Major Mode of Delivery:	Urea	TSP	MP
2.4.1	Dry Season (from Shiromoni)	Truck	Truck	Truck
2.4.2	Wet Season (from Shiromoni)	Truck	Truck	Truck
2.5	Minor Mode of Delivery:	N/A		
2.6	Mode of Offtake:			
2.6.1	Major Mode	Truck, Bullock Cart		
2.6.2	Minor Mode	Country Boat		
2.6.3	Occasional Mode	N/A		

3.0 SITE SELECTION

3.1	Ownership	
3.2	Land Area	
3.3	Site Operations	
3.3.1	Receiving fertilizer	Truck
3.3.2	Offtake of fertilizer	Truck Bullock Cart & Country Boat.
3.4	Site Development Required:	Road access. ±300' paved road access to river. 2' Fill to raise platform above flood levels.

NFSP REF. **PDP WAREHOUSE LOCATION**

P2 **BAGERHAT**

1.0 INVENTORY OF EXISTING WAREHOUSES

		Storage Capacity	No.of Units	Category
1.1	Constructed Warehouse	400 Tons	1	Additional
1.2	Warehouse under construction	0		
1.3	Total	400 Tons		

1.4 **Remarks :** Existing godown is far away from new godown site and may have to be abandoned when new godown is built.

2.0 NFSP REQUIREMENTS

2.1	New Storage Capacity Needed	500 Tons		
2.2	Storage Capacity for Construction	2 000 Tons		
2.3	Source of Supply:	Urea	TSP	MP
2.3.1	Dry Season (via Shiromoni)	Chalna	Chalna	Chalna
2.3.2	Wet Season	Ashuganj	Chalna	Chalna
2.4	Major Mode of Delivery:	Urea	TSP	MP
2.4.1	Dry Season (From Shiromoni)	Truck	Truck	Truck
2.4.2	Wet Season (From Chalna)	Barge	Barge	Barge
2.5	Minor Mode of Delivery:	Truck during wet season from ferry ghat.		
2.6	Mode of Offtake:			
2.6.1	Major Mode	Truck, Country Boat		
2.6.2	Minor Mode	Bullock Cart		
2.6.3	Occasional Mode	N/A		

3.0 SITE SELECTION

3.1	Ownership	Private Land
3.2	Land Area	5.02 Acres
3.3	Site Operations	
3.3.1	Receiving fertilizer	Truck & Barge
3.3.2	Offtake of fertilizer	Country Boat & Bullock Cart.
3.4	Site Development Required:	Land requires filling. Culvert crossing as access to main highway. Relocation of transmission tower. Possible dredging of Khal for direct barge access to site.

NFSP REF. **TRANSIT WAREHOUSE LOCATION**

P3T CHALNA

1.0 INVENTORY OF EXISTING WAREHOUSES

		Storage Capacity	No.of Units	Category
1.1	Constructed Warehouse	NIL		
1.2	Warehouse under construction	NIL		
1.3	Total	NIL		

1.4 Remarks: Warehouse scheme to integrate with Chalna Port Development Master Plan.

2.0 NFSP REQUIREMENTS

2.1	New Storage Capacity Needed	48 000 Tons		
2.2	Storage Capacity for Construction	22 500 Tons		
2.3	Source of Supply:	Urea	TSP	MP
2.3.1	Dry Season	Imports	Imports	Imports
2.3.2	Wet Season	N/A	Imports	Imports
2.4	Major Mode of Delivery:	Urea	TSP	MP
2.4.1	Dry Season	Ship	Ship	Ship
2.4.2	Wet Season	N/A	Ship	Ship
2.5	Minor Mode of Delivery:	N/A		
2.6	Mode of Offtake:			
2.6.1	Major Mode	Barge & Coaster		
2.6.2	Minor Mode	N/A		
2.6.3	Occasional Mode	N/A		

3.0 SITE SELECTION

3.1	Ownership	Chalna Port Authorities
3.2	Land Area	5.63 Acres
3.3	Site Operations	
3.3.1	Receiving fertilizer	Ship
3.3.2	Offtake of fertilizer	Barge, Coaster
3.4	Site Development Required:	Movable Conveyor Systems. Portable Bagging facilities to handle bulk fertilizers.

NFSP REF. **TRANSIT WAREHOUSE LOCATION**

P4T SHIROMONI

1.0 INVENTORY OF EXISTING WAREHOUSES

		Storage Capacity	No.of Units	Category
1.1	Constructed Warehouse	7 500 Tons	1	Transit
1.2	Warehouse under construction	0		
1.3	Total	7 500 Tons		
1.4	Remarks			

2.0 NFSP REQUIREMENTS

2.1	New Storage Capacity Needed	33 000 Tons		
2.2	Storage Capacity for Construction	13 400 Tons		
2.3	Source of Supply:	Urea	TSP	MP
	2.3.1 Dry Season	Chalna	Chalna	Chalna
	2.3.2 Wet Season	Ashuganj	Chalna	Chalna
2.4	Major Mode of Delivery:	Urea	TSP	MP
	2.4.1 Dry Season	Barge	Barge	Barge
	2.4.2 Wet Season	Barge	Barge	Barge
2.5	Minor Mode of Delivery:	N/A		
2.6	Mode of Offtake:			
	2.6.1 Major Mode	Rail		
	2.6.2 Minor Mode	Road		
	2.6.3 Occasional Mode	N/A		

3.0 SITE SELECTION

3.1 Ownership — Railway + KDA* + Private Land

3.2 Land Area — 0.94 + 4.16 + 6.54 =11.64 Acres.

3.3 Site Operations

3.3.1 Receiving fertilizer — Barge

3.3.2 Offtake of fertilizer — BG Rail (Unit Train) & Road.

3.4 Site Development Required: : Rail siding facilities for unit train operation. Pontoon facilities for barges. Movable conveyor belt systems from warehouse and from Pontoon for high speed delivery for loading unit train. Road access and facilities for trucking operations.

*KDA: Khulna Development Authority.

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NFSP REF. PDP WAREHOUSE LOCATION

P5 ROOSEVELT JETTY

1.0 INVENTORY OF EXISTING WAREHOUSES

		Storage Capacity	No.of Units	Category
1.1	Constructed Warehouse	0		
1.2	Warehouse under construction	3 000 Tons	1	Hardcore
1.3	Total	3 000 Tons		

1.4 Remarks : Warehouse is just outside jetty area and is not accessible to country boats to lift fertilizers. Completed warehouse is adequate for PDP operation. New warehouse construction is not needed.

2.0 NFSP REQUIREMENTS

2.1	New Storage Capacity Needed	NIL		
2.2	Storage Capacity for Construction	NIL		
2.3	Source of Supply:	Urea	TSP	MP
	2.3.1 Dry Season	Chalna	Chalna	Chalna
	2.3.2 Wet Season	Ashuganj	Chalna	Chalna
2.4	Major Mode of Delivery:	Urea	TSP	MP
	2.4.1 Dry Season	Barge	Barge	Barge
	2.4.2 Wet Season	Barge	Barge	Barge
2.5	Minor Mode of Delivery:	Truck from jetty to warehouse		
2.6	Mode of Offtake:			
	2.6.1 Major Mode	Truck, Bullock Cart		
	2.6.2 Minor Mode	N/A		
	2.6.3 Occasional Mode	N/A		

3.0 SITE SELECTION

3.1	Ownership	N/A
3.2	Land Area	N/A
3.3	Site Operations	
	3.3.1 Receiving fertilizer	Barge
	3.3.2 Offtake of fertilizer	Truck, Bullock Cart
3.4	Site Development Required:	N/A

NFSP REF.	PDP WAREHOUSE LOCATION
P6	RAJAPUR

1.0 INVENTORY OF EXISTING WAREHOUSES

		Storage Capacity	No.of Units	Category
1.1	Constructed Warehouse	NIL		
1.2	Warehouse under construction	NIL		
1.3	Total	NIL		

1.4 Remarks : Hired/leased godown used for PDP operation. Godown is on opposite side of river bank of Roosevelt Jetty. Serves as PDP for offtake by country boats. Adequate for PDP needs no new construction is planned.

2.0 NFSP REQUIREMENTS

2.1	New Storage Capacity Needed	1 000 Tons		
2.2	Storage Capacity for Construction	NIL		
2.3	Source of Supply:	Urea	TSP	MP
	2.3.1 Dry Season	Chalna	Chalna	Chalna
	2.3.2 Wet Season	Ashuganj	Chalna	Chalna
2.4	Major Mode of Delivery:	Urea	TSP	MP
	2.4.1 Dry Season	Barge	Barge	Barge
	2.4.2 Wet Season	Barge	Barge	Barge
2.5	Minor Mode of Delivery:	N/A		
2.6	Mode of Offtake:			
	2.6.1 Major Mode	Country Boat, Bullock Cart		
	2.6.2 Minor Mode	N/A		
	2.6.3 Occasional Mode	Truck		

3.0 SITE SELECTION

3.1	Ownership	N/A
3.2	Land Area	N/A
3.3	Site Operations	
	3.3.1 Receiving fertilizer	Barge
	3.3.2 Offtake of fertilizer	Country Boat, Bullock Cart
3.4	Site Development Required:	N/A

NFSP REF. POP WAREHOUSE LOCATION

Q1 BHOLA

1.0 INVENTORY OF EXISTING WAREHOUSES

		Storage Capacity	No.of Units	Category
1.1	Constructed Warehouse	1 000 + 500 = 1 500 Tons	2	Big & Inter
1.2	Warehouse under construction	0		
1.3	Total	1 500 Tons		
1.4	Remarks			

2.0 NFSP REQUIREMENTS

2.1	New Storage Capacity Needed	9 000 Tons	
2.2	Storage Capacity for Construction	8 000 Tons	
2.3	Source of Supply:	Urea	(TSP + MP)
2.3.1	Dry Season	Ashuganj	Chalna
2.3.2	Wet Season	Ashuganj	Chalna
2.4	Major Mode of Delivery:	Urea	(TSP + MP)
2.4.1	Dry Season	Barge	Barge/Coaster
2.4.2	Wet Season	Barge	Barge/Coaster
2.5	Minor Mode of Delivery:	N/A	
2.6	Mode of Offtake:		
2.6.1	Major Mode	Country Boat	
2.6.2	Minor Mode	Truck, Bullock Cart	
2.6.3	Occasional Mode	N/A	

3.0 SITE SELECTION

3.1	Ownership	BADC-owned land
3.2	Land Area	3.86 Acres
3.3	Site Operations	
3.3.1	Receiving fertilizer	Barge, Coaster
3.3.2	Offtake of fertilizer	Country Boat, Truck & Bullock Cart.
3.4	Site Development Required:	Barge unloading facilities. Access to road. Fill to raise platform above flood levels.

NFSP REF. **PDP WAREHOUSE LOCATION**

Q2 KAWKHALI

1.0 INVENTORY OF EXISTING WAREHOUSES

	Storage Capacity	No.of Units	Category
1.1 Constructed Warehouse	NIL		
1.2 Warehouse under construction	NIL		
1.3 Total	NIL		
1.4 Remarks			

2.0 NFSP REQUIREMENTS

2.1 New Storage Capacity Needed	3 500 Tons		
2.2 Storage Capacity for Construction	4 000 Tons		
2.3 Source of Supply:	Urea	(TSP +	MP)
2.3.1 Dry Season	Chalna	Chalna	
2.3.2 Wet Season	Ashuganj	Chalna	
2.4 Major Mode of Delivery:	Urea	TSP	MP
2.4.1 Dry Season	Barge	Barge	Barge
2.4.2 Wet Season	Barge	Barge	Barge
2.5 Minor Mode of Delivery:	N/A		
2.6 Mode of Offtake:			
2.6.1 Major Mode	Country Boat		
2.6.2 Minor Mode	Bullock Cart		
2.6.3 Occasional Mode	N/A		

3.0 SITE SELECTION

3.1 Ownership	BADC-owned Land
3.2 Land Area	7.00 Acres
3.3 Site Operations	
3.3.1 Receiving fertilizer	Barge
3.3.2 Offtake of fertilizer	Bullock Cart
3.4 Site Development Required:	Barge unloading facilities. ± 6' Fill to raise platform above flood levels.

NFSP REF. PDP WAREHOUSE LOCATION

Q3 TUSHKHALI

1.0 INVENTORY OF EXISTING WAREHOUSES

		Storage Capacity	No. of Units	Category
1.1	Constructed Warehouse	400 Tons	1	Additional
1.2	Warehouse under construction	0		
1.3	Total	400 Tons		
1.4	Remarks			

2.0 NFSP REQUIREMENTS

2.1	New Storage Capacity Needed	5 000 Tons	
2.2	Storage Capacity for Construction	3 000 Tons	
2.3	Source of Supply:	Urea	(TSP + MP)
2.3.1	Dry Season	Chalna	Chalna
2.3.2	Wet Season	Ashuganj	Chalna
2.4	Major Mode of Delivery:	Urea	(TSP + MP)
2.4.1	Dry Season	Barge/Coaster	Barge/Coaster
2.4.2	Wet Season	Barge	Barge/Coaster
2.5	Minor Mode of Delivery:	N/A	
2.6	Mode of Offtake:		
2.6.1	Major Mode	Country Boat	
2.6.2	Minor Mode	Bullock Cart	
2.6.3	Occasional Mode	N/A	

3.0 SITE SELECTION

3.1	Ownership	Government + Private Land
3.2	Land Area	0.81 + 1.82 = 2.63 Acres
3.3	Site Operations	
3.3.1	Receiving fertilizer	Barge/Coaster
3.3.2	Offtake of fertilizer	Country Boat, Bullock Cart
3.4	Site Development Required:	Barge unloading facilities. ± 5' Fill to raise platform above flood levels. ± 250' long road access to river.

NFSP REF. PDP WAREHOUSE LOCATION

Q4 BARISAL

1.0 INVENTORY OF EXISTING WAREHOUSES

		Storage Capacity	No.of Units	Category
1.1	Constructed Warehouse	500	1	Big & Inter
1.2	Warehouse under construction 2x2000=	4 000 Tons	2	Hardcore
1.3	Total	4 500 Tons		

1.4 Remarks : Site of new godown is next to the two uncompleted Hardcore godowns. The 500 Tons godown can be abandoned when new godowns including the Hardcore are completed. New godown may also serve as transit for other PDPs in the district.

2.0 NFSP REQUIREMENTS

2.1	New Storage Capacity Needed	500 Tons		
2.2	Storage Capacity for Construction	3 000 Tons		
2.3	Source of Supply:	Urea	TSP	MP
	2.3.1 Dry Season	Ashuganj	Chalna	Chalna
	2.3.2 Wet Season	Ashuganj	Chalna	Chalna
2.4	Major Mode of Delivery:	Urea	TSP	MP
	2.4.1 Dry Season	Barge	Barge	Barge
	2.4.2 Wet Season	Barge	Barge	Barge
2.5	Minor Mode of Delivery:	Trolley		
2.6	Mode of Offtake:			
	2.6.1 Major Mode	Truck, Bullock Cart		
	2.6.2 Minor Mode	Country Boat		
	2.6.3 Occasional Mode	N/A		

3.0 SITE SELECTION

3.1	Ownership	BADC-owned land
3.2	Land Area	
3.3	Site Operations	
	3.3.1 Receiving fertilizer	Barge
	3.3.2 Offtake of fertilizer	Country Boat, Truck , Bullock Cart
3.4	Site Development Required:	Land requires filling. Access to main road and access to river to be developed. Facilities for barges to dock.

NFSP REF. PDP WAREHOUSE LOCATION

R1 . PATUAKHALI

1.0 INVENTORY OF EXISTING WAREHOUSES

		Storage Capacity	No.of Units	Category
1.1	Constructed Warehouse	500 Tons	1	Big & Inter
1.2	Warehouse under construction	2 000 Tons	1	Hardcore
1.3	Total	2 500 Tons		
1.4	Remarks :			

2.0 NFSP REQUIREMENTS

2.1	New Storage Capacity Needed	3 000 Tons		
2.2	Storage Capacity for Construction	3 000 Tons		
2.3	Source of Supply:	Urea	TSP	MP
	2.3.1 Dry Season	Ashuganj	Chalna	Chalna
	2.3.2 Wet Season	Ashuganj	Chalna & Chittagong	Chalna
2.4	Major Mode of Delivery:	Urea	TSP	MP
	2.4.1 Dry Season	Barge	Barge	Barge
	2.4.2 Wet Season	Barge	Barge	Barge
2.5	Minor Mode of Delivery:	N/A		
2.6	Mode of Offtake:			
	2.6.1 Major Mode	Country Boat		
	2.6.2 Minor Mode	Bullock Cart		
	2.6.3 Occasional Mode	N/A		

3.0 SITE SELECTION

3.1	Ownership	BADC -owned Land
3.2	Land Area	2.00 Acres
3.3	Site Operations	
	3.3.1 Receiving fertilizer	Barge
	3.3.2 Offtake of fertilizer	Country Boat & Bullock Cart
3.4	Site Development Required:	Jetty to be built on river bank to facilitate unloading from barge. The brick road between river and proposed godown to be paved. Service road inside the godown complex to be built.

NFSP REF. POP WAREHOUSE LOCATION

R2 BARGUNA

1.0 INVENTORY OF EXISTING WAREHOUSES

		Storage Capacity	No. of Units	Category
1.1	Constructed Warehouse	200 Tons	1	
1.2	Warehouse under construction	0		
1.3	Total	200 Tons		
1.4	Remarks			

2.0 NFSP REQUIREMENTS

2.1	New Storage Capacity Needed	4 000 Tons		
2.2	Storage Capacity for Construction	3 000 Tons		
2.3	Source of Supply:	Urea	(TSP +	MP)
2.3.1	Dry Season	Chalna	Chalna	
2.3.2	Wet Season	Ashuganj	Chalna	
2.4	Major Mode of Delivery:	Urea	TSP	MP
2.4.1	Dry Season	Barge	Barge	Barge
2.4.2	Wet Season	Barge	Barge	Barge
2.5	Minor Mode of Delivery:	N/A		
2.6	Mode of Offtake:			
2.6.1	Major Mode	Country Boat		
2.6.2	Minor Mode	Bullock Cart		
2.6.3	Occasional Mode	N/A		

3.0 SITE SELECTION

3.1	Ownership	BADC- owned Land
3.2	Land Area	2.25 Acres
3.3	Site Operations	
3.3.1	Receiving fertilizer	Barge
3.3.2	Offtake of fertilizer	Country Boat & Bullock Cart
3.4	Site Development Required:	Pontoon for barges. ± 4' Fill to raise platform above flood levels. Road access.

NFSP REF. **PDP WAREHOUSE LOCATION**

S1 JESSORE

1.0 INVENTORY OF EXISTING WAREHOUSES

		Storage Capacity	No.of Units	Category
		2x1000= 2 000 Tons	2	Big & Inter
1.1	Constructed Warehouse	500 Tons	1	USAID Phase I
1.2	Warehouse under construction	0		
1.3	Total	2 500 Tons		
1.4	Remarks			

2.0 NFSP REQUIREMENTS

2.1	New Storage Capacity Needed	4 000 Tons		
2.2	Storage Capacity for Construction	5 000 Tons		
2.3	Source of Supply:	Urea	(TSP +	MP)
2.3.1	Dry Season	Chalna/Shiromoni	Chalna/Shiromoni	
2.3.2	Wet Season	Ashuganj/Shiromoni	Chalna/Shiromoni	
2.4	Major Mode of Delivery:	Urea	TSP	MP
2.4.1	Dry Season (From Shiromoni)	Truck	Truck	Truck
2.4.2	Wet Season (From Shiromoni)	Truck	Truck	Truck
2.5	Minor Mode of Delivery:	Rail + Truck		
2.6	Mode of Offtake:			
2.6.1	Major Mode	Truck, Bullock Cart		
2.6.2	Minor Mode	N/A		
2.6.3	Occasional Mode	Country Boat		

3.0 SITE SELECTION

3.1	Ownership	BADC- Owned Land
3.2	Land Area	3.5 Acres
3.3	Site Operations	
3.3.1	Receiving fertilizer	Truck
3.3.2	Offtake of fertilizer	Truck, Bullock Cart
3.4	Site Development Required:	Road access. Fill to raise platform above flood levels.

NFSP REF. **PDP WAREHOUSE LOCATION**

S2 **KALIGANJ**

1.0 INVENTORY OF EXISTING WAREHOUSES

		Storage Capacity	No.of Units	Category
1.1	Constructed Warehouse	500 Tons	1	Big 6 Inter
		1 000 Tons	1	USAID Phase I
1.2	Warehouse under construction	0		
1.3	Total	1 500 Tons		

1.4 Remarks : Site of new godown is away from existing warehouses.

2.0 NFSP REQUIREMENTS

2.1	New Storage Capacity Needed	1 000 Tons		
2.2	Storage Capacity for Construction	2 000 Tons		
2.3	Source of Supply:	Urea	(TSP +	MP)
2.3.1	Dry Season	Chalna/Shiromoni	Chalna/Shiromoni	
2.3.2	Wet Season	Ashuganj/Shiromoni	Chalna/Shiromoni	
2.4	Major Mode of Delivery:	Urea	TSP	MP
2.4.1	Dry Season (From Shiromoni)	Truck	Truck	Truck
2.4.2	Wet Season (From Shiromoni)	Truck	Truck	Truck
2.5	Minor Mode of Delivery:	N/A		
2.6	Mode of Offtake:			
2.6.1	Major Mode	Truck		
2.6.2	Minor Mode	Bullock Cart		
2.6.3	Occasional Mode	N/A		

3.0 SITE SELECTION

3.1	Ownership	Private
3.2	Land Area	3.5 Acres
3.3	Site Operations	
3.3.1	Receiving fertilizer	Truck
3.3.2	Offtake of fertilizer	Truck, Bullock Cart
3.4	Site Development Required:	Fill to raise site above flood levels. Rail crossing gate.

NFSP REF. **PDP WAREHOUSE LOCATION**

S3 , **MAGURA**

1.0 INVENTORY OF EXISTING WAREHOUSES

		Storage Capacity	No.of Units	Category
1.1	Constructed Warehouse	200 Tons	1	Additional
1.2	Warehouse under construction	0		
1.3	Total	200 Tons		
1.4	Remarks			

2.0 NFSP REQUIREMENTS

2.1	New Storage Capacity Needed	2 500 Tons		
2.2	Storage Capacity for Construction	3 000 Tons		
2.3	Source of Supply:	Urea	(TSP +	MP)
2.3.1	Dry Season	Chalna/Shiromoni	Chalna/Shiromoni	
2.3.2	Wet Season	Ashuganj/Shiromoni	Chalna/Shiromoni	
2.4	Major Mode of Delivery:	Urea	TSP	MP
2.4.1	Dry Season (From Shiromoni)	Truck	Truck	Truck
2.4.2	Wet Season (From Shiromoni)	Truck	Truck	Truck
2.5	Minor Mode of Delivery:	N/A		
2.6	Mode of Offtake:			
2.6.1	Major Mode	Truck, Bullock Cart		
2.6.2	Minor Mode	Country Boat (Wet Season)		
2.6.3	Occasional Mode	N/A		

3.0 SITE SELECTION

3.1	Ownership	
3.2	Land Area	
3.3	Site Operations	
3.3.1	Receiving fertilizer	Truck, Bullock Cart
3.3.2	Offtake of fertilizer	Country Boat (Wet Season)
3.4	Site Development Required:	Road access. River access. Fill to raise platform above flood level

NFSP REF. **PDP WAREHOUSE LOCATION**

S4 : **NARAIL**

1.0 INVENTORY OF EXISTING WAREHOUSES

	Storage Capacity	No.of Units	Category
1.1 Constructed Warehouse	NIL		
1.2 Warehouse under construction	NIL		
1.3 Total	NIL		
1.4 Remarks			

2.0 NFSP REQUIREMENTS

2.1 New Storage Capacity Needed	1 000 Tons		
2.2 Storage Capacity for Construction	2 000 Tons		
2.3 Source of Supply:	Urea	TSP	MP
2.3.1 Dry Season	Chalna	Chalna	Chalna
2.3.2 Wet Season	Ashuganj	Chalna	Chalna
2.4 Major Mode of Delivery:	Urea	TSP	MP
2.4.1 Dry Season	Barge	Barge	Barge
2.4.2 Wet Season	Barge	Barge	Barge
2.5 Minor Mode of Delivery:	N/A		
2.6 Mode of Offtake:			
2.6.1 Major Mode	Truck, Country Boat		
2.6.2 Minor Mode	Bullock Cart		
2.6.3 Occasional Mode	N/A		

3.0 SITE SELECTION

3.1 Ownership	Private Land
3.2 Land Area	1.41 Acres
3.3 Site Operations	
3.3.1 Receiving fertilizer	Barge
3.3.2 Offtake of fertilizer	Truck, Country Boat & Bullock Cart
3.4 Site Development Required:	± 150' long access road from Ghat to PDP to be built. Service road inside proposed warehouse complex to be developed. Brick road leading to Narail Market to be paved.

NFSP REF. **PDP WAREHOUSE LOCATION**

85 . **JHENAIDAH**

1.0 INVENTORY OF EXISTING WAREHOUSES

		Storage Capacity	No.of Units	Category
1.1	Constructed Warehouse	0		
1.2	Warehouse under construction	500 Tons		USAID Phase I
1.3	Total	500 Tons		
1.4	Remarks			

2.0 NFSP REQUIREMENTS

2.1	New Storage Capacity Needed	3 000 Tons		
2.2	Storage Capacity for Construction	3 000 Tons		
2.3	Source of Supply:	Urea	(TSP +	MP)
2.3.1	Dry Season	Chalna/Shiromoni	Chalna/Shiromoni	
2.3.2	Wet Season	Ashuganj/Shiromoni	Chalna/Shiromoni	
2.4	Major Mode of Delivery:	Urea	TSP	MP
2.4.1	Dry Season(From Shiromoni)	Truck	Truck	Truck
2.4.2	Wet Season(From Shiromoni)	Truck	Truck	Truck
2.5	Minor Mode of Delivery:	N/A		
2.6	Mode of Offtake:			
2.6.1	Major Mode	Truck		
2.6.2	Minor Mode	Bullock Cart		
2.6.3	Occasional Mode	N/A		

3.0 SITE SELECTION

3.1	Ownership	Private Land
3.2	Land Area	2.27 Acres
3.3	Site Operations	
3.3.1	Receiving fertilizer	Truck
3.3.2	Offtake of fertilizer	Truck & Bullock Cart
3.4	Site Development Required:	Road access to Jessore-Faridpur Trunk Road to be developed.

NFSP REF. **PDP WAREHOUSE LOCATION**

T1 **CHUADANGA**

1.0 INVENTORY OF EXISTING WAREHOUSES

		Storage Capacity	No.of Units	Category
1.1	Constructed Warehouse	NIL		
1.2	Warehouse under construction	NIL		
1.3	Total	NIL		
1.4	Remarks			

2.0 NFSP REQUIREMENTS

2.1	New Storage Capacity Needed	7 000 Tons		
2.2	Storage Capacity for Construction	7 000 Tons		
2.3	Source of Supply:	Urea	(TSP +	MP)
2.3.1	Dry Season	Chalna/Shiromoni	Chalna/Shiromoni	
2.3.2	Wet Season	Ashuganj/Shiromoni	Chalna/Shiromoni	
2.4	Major Mode of Delivery:	Urea	TSP	MP
2.4.1	Dry Season(From Shiromoni)	Truck	Truck	Truck
2.4.2	Wet Season(From Shiromoni)	Truck	Truck	Truck
2.5	Minor Mode of Delivery:	Rail		
2.6	Mode of Offtake:			
2.6.1	Major Mode	Truck, Bullock Cart		
2.6.2	Minor Mode	N/A		
2.6.3	Occasional Mode	N/A		

3.0 SITE SELECTION

3.1	Ownership	BADC Property + Private Property
3.2	Land Area	3.18 Acres + 1.66 Acres = 4.84 Acres
3.3	Site Operations	
3.3.1	Receiving fertilizer	Truck
3.3.2	Offtake of fertilizer	Truck, Bullock Cart
3.4	Site Development Required:	Road access. Fill to raise platform above flood levels.

NFSP REF. POP WAREHOUSE LOCATION
T2 KUSHTIA

1.0 INVENTORY OF EXISTING WAREHOUSES

		Storage Capacity	No.of Units	Category
1.1	Constructed Warehouse	2 000 Tons	1	Big & Inter
1.2	Warehouse under construction	0		
1.3	Total	2 000 Tons		
1.4	Remarks			

2.0 NFSP REQUIREMENTS

2.1	New Storage Capacity Needed	4 000 Tons		
2.2	Storage Capacity for Construction	3 000 Tons		
2.3	Source of Supply:	Urea	(TSP +	MP)
2.3.1	Dry Season	N/A	Chalna/Shiromoni/Muladuli	
2.3.2	Wet Season	Ghorasal (via Santahar/Muladuli)	Chalna/Shiromoni/Muladuli	
2.4	Major Mode of Delivery:	Urea	TSP	MP
2.4.1	Dry Season (Upto Muladuli)	Rail	Rail	Rail
2.4.2	Wet Season (Upto Muladuli)	Rail	Rail	Rail
2.5	Minor Mode of Delivery:	Truck from Muladuli		
2.6	Mode of Offtake:			
2.6.1	Major Mode	Truck		
2.6.2	Minor Mode	Bullock Cart		
2.6.3	Occasional Mode	N/A		

3.0 SITE SELECTION

3.1	Ownership	BADC-owned property
3.2	Land Area	2.53 Acres
3.3	Site Operations	
3.3.1	Receiving fertilizer	Truck
3.3.2	Offtake of fertilizer	Truck & Bullock Cart
3.4	Site Development Required:	Paved access road to Kushtia-Jhenaidah Trunk Road to be built.

VLP

Bangladesh Agricultural Development Corporation
USAID Fertilizer Distribution
Improvement Grant 388-0024

Engineering Consultancy Services Contract for Bagged Product Fertilizer Warehouses Project

NATIONAL FERTILIZER STORAGE PLAN

VOLUME II - TABLES

JULY 1980

CONSULTING
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NATIONAL FERTILIZER STORAGE PLAN

Comprises Of

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VOLUME II	-	TABLES
VOLUME III	-	EXHIBIT MAPS
VOLUME IV	-	LAND PLANS

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TABLE 3-1 DISTRICTWISE AGRONOMIC REQUIREMENTS AND FERTILIZER SALES PROJECTIONS, 1985

Sheet 1 of 2

Name of District	Agronomic Requirements (Tons)	Sales Projections (Tons)			
		Urea	TSP	MP	Total
A. DACCA	235 463	65.000 (48.15)	52 000 (38.52)	18 000 (13.33)	135 000 (100)
B. KISHOREGANJ	183 310	57 000 (51.82)	38 000 (34.55)	15 000 (13.63)	110 000 (100)
C. MYMENSINGH & JAMALPUR	350 415	75 000 (50.00)	57 000 (38.00)	18 000 (12.00)	150 000 (100)
D. TANGAIL	134 034	32 000 (49.23)	23 000 (35.38)	10 000 (15.39)	65 000 (100)
E. FARIDPUR	190 841	28 000 (50.91)	20 000 (36.36)	7 000 (12.73)	55 000 (100)
F. CHITTAGONG	178 140	64 000 (53.33)	40 000 (33.33)	16 000 (13.34)	120 000 (100)
G. CHITTAGONG HILL TRACTS	34 046	8 000 (57.14)	4 000 (28.57)	2 000 (14.29)	14 000 (100)
H. NOAKHALI	196 672	53 000 (54.08)	36 000 (36.74)	9 000 (9.18)	98 000 (100)
I. COMILLA	263 031	90 000 (46.39)	79 000 (40.72)	25 000 (12.89)	194 000 (100)
J. SYLHET	292 868	50 000 (58.82)	26 000 (30.59)	9 000 (10.59)	85 000 (100)
K. RAJSHAHI	288 690	75 000 (48.70)	57 000 (37.01)	22 000 (14.29)	154 000 (100)
L. RANGPUR	370 985	75 000 (45.45)	65 000 (39.40)	25 000 (15.15)	165 000 (100)
M. BOGRA	167 862	56 000 (53.85)	37 000 (35.58)	11 000 (10.57)	104 000 (100)
N. PABNA	159 002	48 000 (53.33)	34 000 (37.78)	8 000 (8.89)	90 000 (100)

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TABLE 3-1 DISTRICTWISE AGRONOMIC REQUIREMENTS AND FERTILIZER SALES PROJECTIONS, 1985

Sheet 2 of 2

Name of District	Agronomic Requirements (Tons)	Sales Projections (Tons)			
		Urea	TSP	MP	Total
O. DINAJPUR	190 052	62 000 (47.69)	48 000 (36.92)	20 000 (15.39)	130 000 (100)
P. KHULNA	149 379	26 000 (57.78)	14 000 (31.11)	5 000 (11.11)	45 000 (100)
Q. BARISAL	225 093	57 000 (63.33)	25 000 (27.78)	8 000 (8.89)	90 000 (100)
R. PATUAKHALI	104 387	29 000 (63.04)	13 000 (28.26)	4 000 (8.70)	46 000 (100)
S. JESSORE	176 528	50 000 (50.00)	40 000 (40.00)	10 000 (10.00)	100 000 (100)
T. KUSHTIA	94 555	40 000 (50.00)	32 000 (40.00)	8 000 (10.00)	80 000 (100)
NATIONAL TOTAL	3 985 254	1 040 000 (51.23)	740 000 (36.45)	250 000 (12.32)	2 030 000 (100)

Note: Figures in parentheses are percentages.

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TABLE 3-2 THANAWISE AGRONOMIC REQUIREMENTS & SALES PROJECTIONS, 1985.

A. DACCA DISTRICT

Name of Thana	Agronomic Requirements (Tons)	Sales Projection (Tons)			
		Urea	TSP	MP	Total
1. Tejgaon	5676	2245	1795	620	4660
2. Keraniganj	4029	1770	1420	490	3680
3. Nawabganj	6007	590	475	165	1230
4. Dohar	3210	295	235	80	610
5. Sripur	11259	2070	1655	575	4300
6. Kapasia	10620	1770	1420	490	3680
7. Kaliganj	9340	1480	1180	410	3070
8. Joydebpur	11237	3345	2835	980	7360
9. Savar	10005	4430	3545	1225	9200
10. Dhamrai	15901	3430	2740	950	7120
11. Kaliakair	6330	1770	1420	490	3680
12. Munshiganj	8415	4725	3780	1315	9820
13. Lohajang	4256	1165	950	325	2460
14. Srinagar	8001	2070	1655	475	4300
15. Sirajdikhan	5600	2660	2125	735	5520
16. Tongibari	5009	2660	2125	735	5520
17. Gazaria	3047	1105	950	325	2460
18. Manikganj	7220	885	710	245	1840
19. Saturia	6111	1185	950	325	2460
20. Singair	10378	1770	1420	490	3680
21. Harirampur	6952	885	710	245	1840
22. Shibalaya	4043	710	565	195	1470
23. Daulatpur	7829	295	235	80	610
24. Ghior	8381	470	375	135	980
25. Narayanganj	3009	1770	1420	490	3680
26. Araihazar	4818	1480	1180	410	3070
27. Rupganj	5653	1770	1420	490	3680
28. Badyerbazar	4491	1480	1180	410	3070
29. Fatulla	3574	1065	850	295	2210
30. Narsingdi	6160	2365	1890	655	4910
31. Raipura	11539	4725	3780	1315	9820
32. Shibpur	8751	2245	1795	620	4660
33. Monohardi	8532	4020	3215	1115	8350
DISTRICT TOTAL	235463	65000	52000	18000	135000

TABLE 3-2 THANAWISE AGRONOMIC REQUIREMENTS & SALES PROJECTIONS, 1985

B. KISHOREGANJ DISTRICT

Name of Thana	Agronomic Requirements (Tons)	Sales Projection (Tons)			
		Urea	TSP	MP	Total
1. Kishoreganj	9938	3420	2280	900	6600
2. Hossainpur	5766	1900	1270	500	3670
3. Pakundia	9441	3040	2030	800	5870
4. Karimganj	8718	2660	1770	700	5130
5. Tarail	3376	1140	760	300	2200
6. Bajitpur	7541	3800	2530	1000	7330
7. Kuliarchar	4426	1900	1270	500	3670
8. Katiadi	10915	4560	3040	1200	8800
9. Bhairab	3122	1900	1270	500	3670
10. Astagram	7693	4560	3040	1200	8800
11. Nikli	7767	2280	1520	600	4400
12. Itna	12466	4560	3040	1200	8800
13. Netrakona	12015	3800	2530	1000	7330
14. Purbadhala	10645	2280	1520	600	4400
15. Durgapur	14538	2660	1770	700	5130
16. Barhatta	6785	1520	1010	400	2930
17. Mohanganj	5897	1140	760	300	2200
18. Atpara	4839	1520	1010	400	2930
19. Kendua	16885	3040	2030	800	5870
20. Madan	6585	1900	1270	500	3670
21. Khaliajuri	6450	2280	1520	600	4400
22. Kalmakanda	7502	1140	760	300	2200
DISTRICT TOTAL	183310	57000	38000	15000	110000

TABLE 3-2 THANAWISE AGRONOMIC REQUIREMENTS & SALES PROJECTIONS, 1985

C. MYMENSINGH & JAMALPUR DISTRICTS

Name of Thana	Agronomic Requirements (Tons)	Sales Projection (Tons)			
		Urea	TSP	MP	Total
1. Mymensingh	21057	4035	3065	970	8070
2. Muktagacha	16543	4710	3580	1130	9420
3. Phulbaria	24816	5045	3835	1210	10090
4. Trisal	15228	4035	3065	970	8070
5. Bhaluka	15330	4035	3065	970	8070
6. Gaffargaon	25578	8070	6135	1935	16140
7. Nandail	17060	4710	3580	1130	9420
8. Iswarganj	17255	2020	1535	485	4040
9. Gouripur	13557	2020	1535	485	4040
10. Phulpur	27903	3365	2555	810	6730
11. Haluaghat	18701	3365	2555	810	6730
12. Jamalpur	26517	5380	4090	1290	10760
13. Islampur	7870	2005	1525	480	4010
14. Sherpur	16955	3365	2555	810	6730
15. Sribardi	11813	2355	1795	560	4710
16. Sarishabari	10961	3365	2555	810	6730
17. Nalitabari	22842	2690	2045	645	5380
18. Nakhla	9570	2355	1795	560	4710
19. Melandah	13959	4710	3580	1130	9420
20. Madarganj	7304	1345	1020	325	2690
21. Dewanganj	9596	2020	1535	485	4040
DISTRICT TOTAL	350415	75000	57000	18000	150000

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TABLE 3-2 THANAWISE AGRONOMIC REQUIREMENTS & SALES PROJECTIONS, 1985

D. TANGAIL DISTRICT

Name of Thana	Agronomic Requirements (Tons)	Sales Projection (Tons)			
		Urea	TSP	MP	Total
1. Tangail	15522	4650	3345	1455	9450
2. Basail	20123	2910	2090	910	5910
3. Ghatail	18858	4950	3555	1545	10050
4. Kalihati	20325	4650	3345	1455	9450
5. Nagarpur	10469	1460	1050	450	2960
6. Mirzapur	15629	4070	2925	1275	8270
7. Gopalpur	10809	3490	2510	1090	7090
8. Madhupur	16886	4650	3345	1455	9450
9. Bhuapur	5514	1170	835	365	2370
DISTRICT TOTAL	134035	32000	23000	10000	65000

TABLE 3-2 THANAWISE AGRONOMIC REQUIREMENTS & SALES PROJECTIONS, 1985

E. FARIDPUR DISTRICT

Name of Thana	Agronomic Requirements (Tons)	Sales Projection (Tons)			
		Urea	TSP	MP	Total
1. Faridpur	11563	2510	1790	630	4930
2. Charbhadrasan	3527	940	675	235	1850
3. Sadarpur	5787	1260	895	315	2470
4. Bhanga	7266	2510	1790	630	4930
5. Nagarkanda	7697	1260	895	315	2470
6. Alfadanga	2709	345	245	90	680
7. Boalmari	12159	2825	2020	705	5550
8. Rajbari	8777	1570	1120	390	3080
9. Goalunda	3525	285	205	70	560
10. Pangsa	10385	1570	1120	390	3080
11. Baliakandi	8155	565	400	145	1110
12. Muksudpur	9946	940	675	235	1850
13. Gopalganj	10466	940	675	235	1850
14. Kotwalipara	12010	375	270	95	740
15. Kasiani	7341	315	225	80	620
16. Rajore	5710	940	675	235	1850
17. Kalkini	9934	1570	1120	390	3080
18. Goshairhat	5578	1005	715	250	1970
19. Bhedarganj	7168	940	675	235	1850
20. Naria	7540	1005	715	250	1970
21. Jazira	7379	880	630	220	1730
22. Shibchar	12681	940	675	235	1850
23. Madaripur	9189	1570	1120	390	3080
24. Palong	4349	940	675	235	1850
DISTRICT TOTAL	190841	28000	20000	7000	55000

TABLE 3-2 THANAWISE AGRONOMIC REQUIREMENTS & SALES PROJECTIONS, 1985

F. CHITTAGONG DISTRICT

Name of Thana	Agronomic Requirements (Tons)	Sales Projection (Tons)			
		Urea	TSP	MP	Total
1. Double Mooring	2295	2730	1705	675	5110
2. Panchlaish	2046	820	510	200	1530
3. Hathazari	8147	3400	2125	855	6380
4. Sandwip	10883	3065	1915	770	5750
5. Mirsarai	14097	4770	2980	1190	8940
6. Sitakunda	7644	2385	1490	595	4470
7. Fatikchari	13928	3400	2125	855	6380
8. Rauzan	9838	3400	2125	855	6380
9. Rangunia	10227	3745	2340	935	7020
10. Anwara	7048	3400	2125	855	6380
11. Banshkhali	8640	4085	2555	1020	7660
12. Boalkhali	5475	1700	1065	425	3190
13. Patiya.	11765	4900	3065	1225	9190
14. Satkania	18278	6400	4000	1600	12000
15. Cox's Bazar	7155	2385	1490	595	4470
16. Chakaria	12176	6130	3830	1530	11490
17. Kutubdia	8737	1160	725	285	2170
18. Ramu	4108	2040	1275	515	3830
19. Moheshkhali	5794	1360	850	340	2550
20. Ukhiya	3215	1700	1065	425	3190
21. Teknaf	4890	1025	640	255	1920
22. Tea Estates	1754	-	-	-	-
DISTRICT TOTAL	178140	64000	40000	16000	120000

TABLE 3-2 THANAWISE AGRONOMIC REQUIREMENTS & SALES PROJECTIONS, 1985

G. CHITTAGONG HILL TRACTS

Name of Thana	Agronomic Requirements (Tons)	Sales Projection (Tons)			
		Urea	TSP	MP	Total
1. Rangamati	3477	800	400	200	1400
2. Chandraghona	3142	1485	745	370	2600
3. Subalong	496	345	170	85	600
4. Bagaichari	2682	345	170	85	600
5. Longadu	2182	230	115	55	400
6. Ramgarh	3757	1140	570	290	2000
7. Khagrachari	4074	455	230	115	800
8. Mahalchari	1545	25	10	5	40
9. Dighinala	2819	455	230	115	800
10. Bandarban	2346	800	400	200	1400
11. Ruma	2624	90	45	25	160
12. Lama	2994	1030	515	255	1800
13. Nakhiongchari	1876	800	400	200	1400
14. Tea Estates	32	-	-	-	-
DISTRICT TOTAL	34046	8000	4000	2000	14000

TABLE 3-2 THANAWISE AGRONOMIC REQUIREMENTS & SALES PROJECTIONS, 1985

H. NOAKHALI DISTRICT

Name of Thana	Agronomic Requirements (Tons)	Sales Projection (Tons)			
		Urea	TSP	MP	Total
1. Sudharam	28304	5750	3905	975	10630
2. Companyganj	8686	1275	865	220	2360
3. Hatiya	28370	4470	3040	760	8270
4. Ramgati	23858	3830	2600	650	7080
5. Laksmipur	17096	4155	2820	705	7680
6. Raipur	9485	3190	2165	545	5900
7. Begumganj	14707	7665	5210	1295	14170
8. Senbagh	7313	1915	1300	325	3540
9. Ramganj	4961	1275	865	220	2360
10. Chatkhil	6160	1595	1085	270	2950
11. Feni	20042	6385	4340	1085	11810
12. Sonagazi	12663	2555	1735	430	4720
13. Chagalnaiya	12138	5750	3905	975	10630
14. Parshuram	7889	3190	2165	545	5900
DISTRICT TOTAL	196672	53000	36000	9000	98000

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TABLE 3-2 THANAWISE AGRONOMIC REQUIREMENTS & SALES PROJECTIONS, 1985

I. COMILLA DISTRICT

Name of Thana	Agronomic Requirements (Tons)	Sales Projection (Tons)			
		Urea	TSP	MP	Total
1. Comilla	15709	6430	5645	1785	13860
2. Burichang	14210	2926	2565	810	6300
3. Debidwar	12835	3510	3080	970	7560
4. Chandina	11282	4385	3850	1215	9450
5. Barura	12628	4090	3590	1140	8820
6. Kachua	8930	3800	3335	1055	8190
7. Laksam	20131	8180	7180	2270	17630
8. Chowddagram	20305	4670	4100	1300	10070
9. Hajiganj	9466	4090	3590	1140	8820
10. Faridganj	7776	2925	2565	810	6300
11. Chandpur	11096	2925	2565	810	6300
12. Matlab Bazar	13687	4670	4100	1300	10070
13. Daudkandi	17745	5260	4620	1460	11340
14. Homna	5469	1170	1030	320	2520
15. Muradnagar	12303	4090	3590	1140	8820
16. Bancharampur	7409	1755	1540	485	3780
17. Nabinagar	11323	5260	4620	1460	11340
18. Kasba	13292	4670	4100	1300	10070
19. Brahmanbaria	18196	7015	6155	1950	15120
20. Nasirnagar	8869	4090	3590	1140	8820
21. Sarail	10359	4090	3590	1140	8820
22. Tea Estates	11	-	-	-	-
DISTRICT TOTAL	263031	90000	79000	25000	194000

TABLE 3-2 THANAWISE AGRONOMIC REQUIREMENTS & SALES PROJECTIONS, 1985

J. SYLHET DISTRICT

Name of Thana	Agronomic Requirements (Tons)	Sales Projection (Tons)			
		Urea	TSP	MP	Total
1. Sylhet	11139	2705	1410	485	4600
2. Gowainghat	8688	470	245	85	800
3. Balaganj	3506	135	70	25	230
4. Tajpur	3400	335	175	60	570
5. Biswanath	4637	1145	595	210	1950
6. Fenchuganj	2238	335	175	60	570
7. Golapganj	5929	880	455	155	1490
8. Jaintiapur	3992	205	110	35	350
9. Kanaighat	9397	540	280	100	920
10. Zakiganj	5914	605	315	110	1030
11. Bianibazar	2993	470	245	85	800
12. Habiganj	6598	3380	1755	605	5740
13. Madhabpur	9787	3380	1755	605	5740
14. Chunarughat	15727	3380	1755	605	5740
15. Bahubal	5958	1220	635	215	2070
16. Baniachung	11618	3040	1580	550	5170
17. Nabiganj	5020	540	280	100	920
18. Lakhai	5613	2365	1230	425	4020
19. Azmiriganj	4583	2365	1230	425	4020
20. Sunamganj	15083	2030	1055	365	3450
21. Chhatak	15504	2365	1230	425	4020
22. Jagannathpur	9028	810	420	150	1380
23. Tahirpur	7977	1010	525	185	1720
24. Dharmapasha	10455	1355	705	250	2310
25. Dirai	9199	1010	525	185	1720
26. Sulla	5902	1690	880	300	2870
27. Jamalganj	9128	1690	880	300	2870
28. Moulvibazar	11750	1690	880	300	2870
29. Rajnagar	9093	1010	525	185	1720
30. Kulaura	12116	3040	1580	550	5170
31. Srimangal	8368	1355	705	250	2310
32. Kamalganj	12912	2365	1230	425	4020
33. Barlekha	8510	1085	565	190	1840
34. Tea Estates	21106	-	-	-	-
DISTRICT TOTAL	292868	50000	26000	9000	85000

TABLE 3-2 THANAWISE AGRONOMIC REQUIREMENTS & SALES PROJECTIONS, 1985

K. RAJSHAHI DISTRICT

Name of Thana	Agronomic Requirements (Tons)	Sales Projection (Tons)			
		Urea	TSP	MP	Total
1. Paba	8677	3890	2955	1145	7990
2. Tanore	9672	2500	1900	730	5130
3. Mohanpur	4068	1110	845	325	2280
4. Bagmara	10408	2220	1690	650	4560
5. Durgapur	6630	1110	845	325	2280
6. Puthia	7789	1950	1480	570	4000
7. Godagari	14139	3330	2530	980	6840
8. Charghat	13333	3890	2955	1145	7990
9. Nawabganj	13105	3330	2530	980	6840
10. Bholahat	2317	285	215	80	580
11. Nachole	9674	2220	1690	650	4560
12. Shibganj	15982	1390	1060	400	2850
13. Gomastapur	8259	1950	1480	570	4000
14. Porsha	14242	3330	2530	980	6840
15. Naogaon	12679	4450	3385	1295	9130
16. Badalgachi	9681	1950	1480	570	4000
17. Niamatpur	13363	2220	1690	650	4560
18. Manda	10002	3615	2745	1060	7420
19. Mahadebpur	6351	3890	2955	1145	7990
20. Atrai	9166	3330	2530	980	6840
21. Raninagar	7461	2775	2110	815	5700
22. Dhamoirhat	11623	2775	2110	815	5700
23. Patnitala	12915	3890	2955	1145	7990
24. Natore	12687	2775	2110	815	5700
25. Bagatipura	7951	1665	1265	490	3420
26. Lalpur	10296	3330	2530	980	6840
27. Baraigram	6902	1665	1265	490	3420
28. Gurudaspur	7432	1665	1265	490	3420
29. Singra	11886	2500	1900	730	5130
DISTRICT TOTAL	288690	75000	57000	22000	154000

TABLE 3-2 THANAWISE AGRONOMIC REQUIREMENTS & SALES PROJECTIONS, 1985

L. RANGPUR DISTRICT

Name of Thana	Agronomic Requirements (Tons)	Sales Projection (Tons)			
		Urea	TSP	MP	Total
1. Rangpur	11423	4500	3900	1500	9900
2. Kawnia	7644	1000	870	330	2200
3. Gangachara	8076	2000	1730	670	4400
4. Mithapukur	19531	5000	4330	1670	11000
5. Pirganj	16118	3750	3245	1255	8250
6. Pirgacha	14802	2000	1730	670	4400
7. Badarganj	14312	2500	2170	830	5500
8. Kaliganj	15207	3250	2815	1085	7150
9. Hatibandha	10719	1500	1300	500	3300
10. Patgram	6721	1250	1085	415	2750
11. Gaibandha	13291	3000	2600	1000	6600
12. Palashbari	9886	2000	1730	670	4400
13. Gobindaganj	20152	5000	4330	1670	11000
14. Saghata	8378	1750	1515	585	3850
15. Sundarganj	16247	3250	2815	1085	7150
16. Sadullapur	10969	2250	1950	750	4950
17. Phulchari	6790	1250	1085	415	2750
18. Kurigram	8770	1750	1515	585	3850
19. Ulipur	21306	3500	3035	1165	7700
20. Chilmari	6620	1000	870	330	2200
21. Rawmari	7337	1250	1085	415	2750
22. Bhurungamari	10711	1250	1085	415	2750
23. Nageswari	18543	2500	2170	830	5500
24. Lalmonirhat	13163	3500	3035	1165	7700
25. Phulbari	9911	1000	870	330	2200
26. Nilphamari	12444	3500	3035	1165	7700
27. Saidpur	5640	1750	1515	585	3850
28. Dimla	10068	1500	1300	500	3300
29. Domar	13812	1750	1515	585	3850
30. Jaldhaka	10998	2500	2170	830	5500
31. Kishoreganj	11296	3000	2600	1000	6600
DISTRICT TOTAL	370885	75000	65000	25000	165000

TABLE 3-2 THANAWISE AGRONOMIC REQUIREMENTS & SALES PROJECTIONS, 1985

M. BOGRA DISTRICT

Name of Thana	Agronomic Requirements (Tons)	Sales Projection (Tons)			
		Urea	TSP	MP	Total
1. Bogra	21621	5230	3455	1025	9710
2. Kahaloo	9416	2610	1725	515	4850
3. Shibganj	18222	5230	3455	1025	9710
4. Gabtali	18285	6720	4440	1320	12480
5. Sariakandi	13120	3880	2565	765	7210
6. Dhunat	10431	3730	2465	735	6930
7. Nandigram	10274	2610	1725	515	4850
8. Sherpur	10176	3730	2465	735	6930
9. Adamdighi	6265	2840	1875	555	5270
10. Dubchanchia	6467	2610	1725	515	4850
11. Akkelpur	5727	2610	1725	515	4850
12. Joypurhat	13084	5230	3455	1025	9710
13. Panchbibi	12255	3370	2225	655	6250
14. Khetlal	12519	5600	3700	1100	10400
DISTRICT TOTAL	167862	56000	37000	11000	104000

TABLE 3-2 THANAWISE AGRONOMIC REQUIREMENTS & SALES PROJECTIONS, 1985

N. PABNA DISTRICT

Name of Thana	Agronomic Requirements (Tons)	Sales Projection (Tons)			
		Urea	TSP	MP	Total
1. Pabna	12305	3690	2615	615	6920
2. Atgharia	5638	1540	1095	255	2890
3. Ishurdi	7917	1540	1095	255	2890
4. Chatmohar	10268	3080	2175	515	5770
5. Faridpur	5486	1540	1095	255	2890
6. Santhia	11279	2155	1525	360	4040
7. Bera	5416	1540	1095	255	2890
8. Sujanagar	10162	2465	1745	410	4620
9. Sirajganj	14103	5225	3705	870	9800
10. Kazipur	12774	4615	3265	770	8650
11. Raiganj	11150	4615	3265	770	8650
12. Tarash	10839	2155	1525	360	4040
13. Ullapara	17602	5840	4130	980	10950
14. Kamarkhand	3672	925	650	155	1730
15. Belkuchi	5741	1540	1095	255	2890
16. Chouhali	3519	310	220	50	580
17. Shahjadpur	11131	5225	3705	870	9800
DISTRICT TOTAL	159002	48000	34000	8000	90000

TABLE 3-2 THANAWISE AGRONOMIC REQUIREMENTS & SALES PROJECTIONS, 1985

D. DINAJPUR DISTRICT

Name of Thana	Agronomic Requirements (Tons)	Sales Projection (Tons)			
		Urea	TSP	MP	Total
1. Dinajpur	9444	4960	3840	1600	10400
2. Chirirbandar	12171	3100	2400	1000	6500
3. Parbatipur	16343	4960	3840	1600	10400
4. Phulbari	10912	3720	2880	1200	7800
5. Nawabganj	11838	2480	1920	800	5200
6. Hakimpur	5771	1860	1440	600	3900
7. Ghoraghat	7021	1860	1440	600	3900
8. Birganj	8028	3100	2400	1000	6500
9. Khansama	6516	1240	960	400	2600
10. Kaharul	4677	1240	960	400	2600
11. Biral	7774	2480	1920	800	5200
12. Bochaganj	7231	2480	1920	800	5200
13. Thakurgaon	16211	7440	5760	2400	15600
14. Baliadanga	7397	1240	960	400	2600
15. Ranisankail	7995	2480	1920	800	5200
16. Haripur	4136	620	480	200	1300
17. Pirganj	12032	4960	3840	1600	10400
18. Panchagar	4629	2480	1920	800	5200
19. Debiganj	9891	3100	2400	1000	6500
20. Boda	11249	3100	2400	1000	6500
21. Atwari	4664	1860	1440	600	3900
22. Tetulia	4122	1240	960	400	2600
DISTRICT TOTAL	190052	62000	48000	20000	130000

TABLE 3-2 THANAWISE AGRONOMIC REQUIREMENTS & SALES PROJECTIONS, 1985

P. KHULNA DISTRICT

Name of Thana	Agronomic Requirements (Tons)	Sales Projection (Tons)			
		Urea	TSP	MP	Total
1. Khulna	2319	520	280	100	900
2. Baitaghata	6292	325	175	60	560
3. Daulatpur	1352	325	175	60	560
4. Fultala	1654	520	280	100	900
5. Terakhada	5577	655	350	125	1130
6. Dumuria	8393	1625	875	310	2810
7. Dacopa	5944	325	175	60	560
8. Paikgacha	14048	1300	700	250	2250
9. Bagerhat	6517	1300	700	250	2250
10. Fakirhat	4619	655	350	125	1130
11. Mollahat	11572	1300	700	250	2250
12. Kachua	5063	655	350	125	1130
13. Sarankhola	4809	1300	700	250	2250
14. Rampal	9140	655	350	125	1130
15. Morelganj	9881	1950	1050	380	3380
16. Satkhira	8105	3240	1750	620	5610
17. Kalaroa	8182	3240	1750	620	5610
18. Kaliganj	7696	1950	1050	380	3380
19. Tala Magura	6802	1950	1050	380	3380
20. Debnath	3698	780	420	150	1350
21. Asasuni	8374	715	385	140	1240
22. Syamnagar	9342	715	385	140	1240
DISTRICT TOTAL	149379	26000	14000	5000	45000

TABLE 3-2 THANAWISE AGRONOMIC REQUIREMENTS & SALES PROJECTIONS, 1985

Q. BARISAL DISTRICT

Name of Thana	Agronomic Requirements (Tons)	Sales Projection (Tons)			
		Urea	TSP	MP	Total
1. Barisal	9159	3030	1335	425	4790
2. Babuganj	9062	2120	930	300	3350
3. Uzirpur	7627	1515	660	215	2390
4. Bakerganj	8497	1820	795	255	2870
5. Gournadi	15833	3030	1335	425	4790
6. Muladi	7162	1820	795	255	2870
7. Hijla	5690	1515	660	215	2390
8. Mehediganj	5505	3640	1600	510	5750
9. Jhalakathi	7707	1820	795	255	2870
0. Nalchiti	8315	1515	660	215	2390
11. Rajapur	5326	1215	535	170	1920
12. Kathalia	5032	910	405	125	1440
13. Pirozpur	6701	1820	795	255	2870
14. Kawkhali	2615	610	265	85	960
15. Swarupkathi	7524	1215	535	170	1920
16. Banaripura	4238	1215	535	170	1920
17. Nazirpur	12182	1515	660	215	2390
18. Bhandaria	5228	1515	660	215	2390
19. Mathbaria	11041	4245	1865	590	6700
20. Bhola	19308	4850	2130	680	7660
21. Daulatkhan	7694	2120	930	300	3350
22. Burhanuddin	13817	5150	2260	720	8130
23. Tazumuddin	9873	1515	660	215	2390
14. Lalmohan	12236	3640	1600	510	5750
15. Charfasson	17721	3640	1600	510	5750
	225093	57000	25000	8000	90000

TABLE 3-2 THANAWISE AGRONOMIC REQUIREMENTS & SALES PROJECTIONS, 1985

R. PATUAKHALI DISTRICT

Name of Thana	Agronomic Requirements (Tons)	Sales Projection (Tons)			
		Urea	TSP	MP	Total
1. Patuakhali	12521	3165	1420	435	5020
2. Bauphal	17722	5265	2360	725	8350
3. Galachipa	17947	2110	950	290	3350
4. Mirzaganj	5879	1585	705	220	2510
5. Khepupara & Kalapara	6812	1585	705	220	2510
6. Barguna	11457	7375	3305	1020	11700
7. Amtali	15741	2110	950	290	3350
8. Bamna	4338	1585	705	220	2510
9. Betagi	6108	2110	950	290	3350
10. Patharghata	5862	2110	950	290	3350
DISTRICT TOTAL	104387	29000	13000	4000	46000

TABLE 3-2 THANAWISE AGRONOMIC REQUIREMENTS & SALES PROJECTIONS, 1985

8. JESSORE DISTRICT

Name of Thana	Agronomic Requirements (Tons)	Sales Projection (Tons)			
		Urea	TSP	MP	Total
1. Jessore	10317	3675	2940	735	7350
2. Sarsa	9741	3920	3140	780	7840
3. Jhikargacha	10352	3430	2745	685	6860
4. Abhoynagar	5703	1720	1375	345	3440
5. Bagherpara	7936	2695	2155	540	5390
6. Manirampur	13037	2940	2350	590	5880
7. Keshabpur	7424	2205	1765	440	4410
8. Jhenaidah	11206	3675	2940	735	7350
9. Sailkupa	11562	4165	3330	835	8330
10. Harinakunda	7200	2205	1765	440	4410
11. Kaliganj	12786	3675	2940	735	7350
12. Kotchandpur	5956	1475	1180	295	2950
13. Maheshpur	13028	2940	2350	590	5880
14. Magura	10487	3430	2745	685	6860
15. Sripur	7763	1720	1375	345	3440
16. Salikha	5789	1720	1375	345	3440
17. Mohammadpur	6029	980	785	195	1960
18. Narail	7691	2205	1765	440	4410
19. Kalia	5300	245	195	50	490
20. Lohagara	7221	980	785	195	1960
DISTRICT TOTAL	176528	50000	40000	10000	100000

TABLE 3-2 THANAWISE AGRONOMIC REQUIREMENTS & SALES PROJECTIONS, 1985

T. KUSHTIA DISTRICT

Sheet 20 of 20

Name of Thana	Agronomic Requirements (Tons)	Sales Projection (Tons)			
		Urea	TSP	MP	Total
1. Kushtia	9709	4800	3840	960	9600
2. Khoksha	2794	800	640	160	1600
3. Kumarkhali	8050	2000	1600	400	4000
4. Mirpur	9813	4240	3390	850	8480
5. Bheramara	3114	1760	1410	350	3520
6. Daulatpur	10301	4000	3200	800	8000
7. Chuadanga	8645	3600	2880	720	7200
8. Alamdanga	9127	4400	3520	880	8800
9. Damurhuda	7930	4800	3840	960	9600
10. Jibannagar	4259	1600	1280	320	3200
11. Meherpur	12526	4000	3200	800	8000
12. Gangni	8287	4000	3200	800	8000
DISTRICT TOTAL	94555	40000	32000	8000	80000

TABLE 3-3

PDP LOCATIONS, SERVICE AREAS AND PRODUCTWISE SALES PROJECTIONS, 1985

DACCA DISTRICT

NFSP Ref.	PDP Location	Service Area (Thanas)	1985 Sales Projection (Tons) Urea	TSP	MP	Total
A1	Demra	Tejgaon	2 245	1 795	620	4 660
		Keraniganj	1 770	1 420	490	3 680
		Rupganj 1/2	885	710	245	1 840
		Fatulla	1 065	850	295	2 210
		Narayanganj	1 770	1 420	490	3 680
		Badyerbazar	1 480	1 180	410	3 070
		Araihazar 1/2	740	590	205	1 535
		Sub-Total	9 955	7 965	2 755	20 675
A2	Savar	Savar 3/4	3 320	2 660	920	6 900
		Dhamrai	3 430	2 740	950	7 120
		Singair	1 770	1 420	490	3 680
		Sub-Total	8 520	6 820	2 360	17 700
A3	Joydebpur	Joydebpur	3 545	2 835	980	7 360
		Kaliakair 3/4	1 330	1 065	365	2 760
		Sripur 2/3	1 380	1 100	385	2 865
		Savar 1/4	1 110	885	305	2 300
		Sub-Total	7 365	5 885	2 035	15 285
A4	Kaliganj	Kaliganj	1 480	1 180	410	3 070
		Rupganj 1/2	885	710	245	1 840
		Kapasia	1 770	1 420	490	3 680
		Sripur 1/3	690	555	190	1 435
		Shibpur 1/3	750	600	206	1 555
		Monohardi 1/4	1 005	805	280	2 090
		Sub-Total	6 580	5 270	1 820	13 670
A5	Narsingdi	Narsingdi	2 365	1 890	655	4 910
		Shibpur 2/3	1 495	1 195	415	3 105
		Araihazar 1/2	740	590	205	1 535
		Monohardi 3/4	3 015	2 410	835	6 260
		Raipura 1/2	2 360	1 890	660	4 910
		Bancharampur (Comilla)	1 755	1 540	485	3 780
		Sub-Total	11 730	9 515	3 255	24 500

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TABLE 3-3 PDP LOCATIONS, SERVICE AREAS AND PRODUCTWISE SALES PROJECTIONS, 1985

DACCA DISTRICT

NFSP Ref.	PDP Location	Service Area (Thanas)	1985 Sales Projection (Tons) Urea	TSP	MP	Total
A6	Manikganj	Manikganj	885	710	245	1 840
		Shibalaya	710	565	195	1 470
		Ghior	470	375	135	980
		Harirampur	885	710	245	1 840
		Saturia	1 185	950	325	2 460
		Daulatpur	295	235	80	610
		Sub-Total	4 430	3 545	1 225	9 200
A7	Sirajdikhan	Sirajdikhan	2 660	2 125	735	5 520
		Srinagar	2 070	1 655	475	4 300
		Nawabganj	590	475	165	1 230
		Dohar	295	235	80	610
		Sub-Total	5 615	4 490	1 555	11 660
A8	Mirkadim	Munshiganj	4 725	3 780	1 315	9 820
		Gazaria	1 185	950	325	2 460
		Lohajang	1 185	950	325	2 460
		Tongibari	2 660	2 125	735	5 520
		Sub-Total	9 755	7 805	2 700	20 260
		Total	63 950	51 295	17 705	132 950

TABLE 3-3 POP LOCATIONS, SERVICE AREAS AND PRODUCTWISE SALES PROJECTIONS, 1985

KISHOREGANJ DISTRICT

NFSP Ref.	POP Location	Service Area (Thanas)	1985 Sales Projection (Tons) Urea	TSP	MP	Total
B1	Kishoreganj	Kishoreganj	3 420	2 280	900	6 600
		Pakundia	3 040	2 030	800	5 870
		Karimganj	2 660	1 770	700	5 130
		Tarail	1 140	760	300	2 200
		Kendua	3 040	2 030	800	5 870
		Madan	1 900	1 270	500	3 670
		Hossainpur	1 900	1 270	500	3 670
		Iswarganj 1/4 (Mymensingh)	505	385	120	1 010
		Nandail (Mymensingh)	4 710	3 580	1 130	9 420
		Sub-Total	22 315	15 375	5 750	43 440
B2	Netrakona	Netrakona	3 800	2 530	1 000	7 330
		Atpara	1 520	1 010	400	2 930
		Mohanganj	1 140	760	300	2 200
		Barhatta	1 520	1 010	400	2 930
		Kalmakanda	1 140	760	300	2 200
		Sub-Total	9 120	6 070	2 400	17 590
B3	Jaria	Purbadhala	2 280	1 520	600	4 400
		Durgapur	2 660	1 770	700	5 130
		Sub-Total	4 940	3 290	1 300	9 530
B4	Sararchar	Katiadi	4 560	3 040	1 200	8 800
		Nikli 1/4	570	380	150	1 100
		Bajitpur 1/2	1 900	1 265	500	3 665
		Sub-Total	7 030	4 685	1 850	13 565
B5	Kuliarchar	Kuliarchar	1 900	1 270	500	3 670
		Bajitpur 1/2	1 900	1 265	500	3 665
		Nikli 3/4	1 710	1 140	450	3 300
		Itna 1/2	2 280	1 520	600	4 400
		Sub-Total	7 790	5 195	2 050	15 036

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TABLE 3-3 PDP LOCATIONS, SERVICE AREAS AND PRODUCTWISE SALES PROJECTIONS, 1985

KISHOREGANJ DISTRICT

NFSP Ref.	PDP Location	Service Area (Thanas)	1985 Sales Projection (Tons) Urea	TSP	MP	Total
B6	Bhairab	Bhairab	1 900	1 270	500	3 670
		Astagram	4 560	3 040	1 200	8 800
		Sarail 1/2 (Comilla)	2 045	1 795	570	4 410
		Nasirnagar 1/3 (Comilla)	1 360	1 200	380	2 940
		Raipura 1/2 (Dacca)	2 365	1 890	655	4 910
		Sub-Total	12 230	9 195	3 305	24 730
		Total	63 425	43 810	16 655	123 890

TABLE 3-3 PDP LOCATIONS, SERVICE AREAS AND PRODUCTWISE SALES PROJECTIONS, 1985

MYMENSINGH & JAMALPUR DISTRICTS

NFSP Ref.	PDP Location	Service Area (Thanas)	1985 Sales Projection (Tons) Urea	TSP	MP	Total
C1	Shambhuganj	Phulpur	3 365	2 555	810	6 730
		Haluaghat	3 365	2 555	810	6 730
		Gouripur	2 020	1 535	485	4 040
		Iswarganj 3/4	1 515	1 150	365	3 030
		Mymensingh 1/2	2 015	1 535	485	4 035
		Sub-Total	12 280	9 330	2 955	24 565
C2	Mymensingh	Mymensingh 1/2	2 020	1 530	485	4 035
		Muktagacha	4 710	3 580	1 130	9 420
		Phulbaria	5 045	3 835	1 210	10 090
		Trisal	4 035	3 065	970	8 070
		Sub-Total	15 810	12 010	3 795	31 615
C3	Jamalpur	Jamalpur	5 380	4 090	1 290	10 760
		Sarishabari	3 365	2 555	810	6 730
		Sub-Total	8 745	6 645	2 100	17 490
C4	Melandah	Melandah	4 710	3 580	1 130	9 420
		Madarganj	1 345	1 020	325	2 690
		Islampur	2 005	1 525	480	4 010
		Dewanganj	2 020	1 535	485	4 040
		Sub-Total	10 080	7 660	2 420	20 160
C5	Sherpur	Sherpur	3 365	2 555	810	6 730
		Nakhla	2 355	1 795	560	4 710
		Nalitabari	2 690	2 045	645	5 380
		Sribardi	2 355	1 795	560	4 710
		Sub-Total	10 765	8 190	2 575	21 530
C6	Gaffargaon	Gaffargaon	8 070	6 135	1 935	16 140
		Bhaluka	4 035	3 065	970	8 070
		Sub-Total	12 105	9 200	2 905	24 210
		TOTAL	69 785	53 035	16 750	139 570

TABLE 3-3

PDP LOCATIONS, SERVICE AREAS AND PRODUCTWISE SALES PROJECTIONS, 1985

TANGAIL DISTRICT

NFSP Ref.	PDP Location	Service Area (Thanas)	1985 Sales Projection (Tons) Urea	TSP	MP	Total
D1	Madhupur	Madhupur	4 650	3 345	1 455	9 450
		Gopalpur	3 490	2 510	1 090	7 090
		Ghatail 3/4	3 715	2 665	1 160	7 540
		Sub-Total	11 855	8 520	3 705	24 080
D2	Mirzapur	Mirzapur	4 070	2 925	1 275	8 270
		Basail 3/4	2 185	1 565	685	4 435
		Kalihati 1/4	1 160	835	365	2 360
		Kaliakair 1/4 (Dacca)	440	355	125	920
		Sub-Total	7 855	5 680	2 450	15 985
D3	Tangail	Tangail	4 650	3 345	1 455	9 450
		Bhuapur	1 170	835	365	2 370
		Ghatail 1/4	1 235	890	385	2 510
		Kalihati 3/4	3 490	2 510	1 090	7 090
		Nagarpur	1 460	1 050	450	2 960
		Basail 1/4	725	525	225	1 475
		Sub-Total	12 730	9 155	3 970	25 855
		TOTAL	32 440	23 355	10 125	65 920

TABLE 3-3 PDP LOCATIONS, SERVICE AREAS AND PRODUCTWISE SALES PROJECTIONS, 1985

FARIDPUR DISTRICT

NFSP Ref.	PDP Location	Service Area (Thanas)	1985 Sales Projection (Tons) Urea	TSP	MP	Total
E1	Rajbari	Rajbari	1 570	1 120	390	3 080
		Goalunda	285	205	70	560
		Baliakandi	565	400	145	1 110
		Pangsa	1 570	1 120	390	3 080
		Sub-Total	3 990	2 845	995	7 830
E2	Palong	Palong	940	675	235	1 850
		Jazira	880	630	220	1 730
		Naria	1 005	715	250	1 970
		Bhedarganj	940	675	235	1 850
		Gosairhat	1 005	715	250	1 970
		Sub-Total	4 770	3 410	1 190	9 370
E3	Gopalganj	Gopalganj	940	675	235	1 850
		Kasiani	315	225	80	620
		Kotwalipara	375	270	95	740
		Sub-Total	1 630	1 170	410	3 210
E4	Tepakhola	Faridpur	2 510	1 790	630	4 930
		Charbhadrasan	940	675	235	1 850
		Sadarpur	1 260	895	315	2 470
		Nagarkanda	1 260	895	315	2 470
		Boalmari	2 825	2 020	705	5 550
		Alfadanga	345	245	90	680
		Bhanga	2 510	1 790	630	4 930
		Sub-Total	11 650	8 310	2 920	22 880
E5	Madaripur	Madaripur	1 570	1 120	390	3 080
		Shibchar	940	675	235	1 850
		Muksudpur	940	675	235	1 850
		Rajora	940	675	235	1 850
		Gouranadi 1/2 (Barisal)	1 515	665	215	2 395
		Kalkini	1 570	1 120	390	3 080
		Muladi 1/3 (Barisal)	605	265	85	955
		Sub-Total	8 080	5 195	1 785	15 060
		TOTAL	30 120	20 930	7 300	58 350

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TABLE 3-3 POP LOCATIONS, SERVICE AREAS AND PRODUCTWISE SALES PROJECTIONS, 1985

CHITTAGONG DISTRICT

NFSP Ref.	POP Location	Service Area (Thanas)	1985 Sales Projection (Tons) Urea	TSP	MP	Total
F1	Dohazari	Patiya	4 900	3 065	1 225	9 190
		Satkania	6 400	4 000	1 600	12 000
		Bandarban	800	400	200	1 400
		Sub-Total	12 100	7 465	3 025	22 590
F2	Chakaria	Chakaria	6 130	3 830	1 530	11 490
		Moheshkhali 1/2	680	425	170	1 275
		Lama	1 030	515	255	1 800
		Ruma	90	45	25	160
		Sub-Total	7 930	4 815	1 980	14 725
F3	Cox's Bazar	Cox's Bazar	2 385	1 490	555	4 470
		Ramu	2 040	1 275	515	3 830
		Moheshkhali 1/2	680	425	170	1 275
		Ukhiya	1 700	1 065	425	3 190
		Teknaf	1 025	640	255	1 920
		Nakhyongchari (CHT)	800	400	200	1 400
		Sub-Total	8 630	5 295	2 160	16 085
F4	Sandwip	Sandwip	3 065	1 915	770	5 750

TABLE 3-3

PDP LOCATIONS, SERVICE AREAS AND PRODUCTWISE SALES PROJECTIONS, 1985

CHITTAGONG DISTRICT

NFSP Ref.	PDP Location	Service Area (Thanas)	1985 Sales Projection (Tons) Urea	TSP	MP	Total
F5	Chittagong	Panchlaish	820	510	200	1 530
		Double Mooring	2 730	1 705	675	5 110
		Anwara	3 400	2 125	855	6 380
		Beshkhali	4 085	2 555	1 020	7 660
		Kutubdia	1 160	725	285	2 170
		Boalkhali	1 700	1 065	425	3 190
		Raozan	3 400	2 125	855	6 380
		Rangunia	3 745	2 340	935	7 020
		Hathazari	3 400	2 125	855	6 380
		Sitakunda	2 385	1 490	595	4 470
		Mirsarai 1/2	2 385	1 490	595	4 470
		Fatikchari 2/3	2 270	1 415	570	4 255
		Rangamati (CHT)	800	400	200	1 400
		Chandraghona (CHT)	1 485	745	370	2 600
		Subalong (CHT)	345	170	85	600
		Sub-Total	34 110	20 985	8 520	63 615
		TOTAL	65 835	40 475	16 455	122 765

CHT: Chittagong Hill Tracts

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TABLE 3-3 PDP LOCATIONS, SERVICE AREAS AND PRODUCTWISE SALES PROJECTIONS, 1985

NOAKHALI DISTRICT

NFSP Ref.	PDP Location	Service Area (Thanas)	1985 Sales Projection (Tons) Urea	TSP	MP	Total
H1	Feni	Feni	6 385	4 340	1 085	11 810
		Sonagazi	2 555	1 735	430	4 720
		Companyganj	1 275	865	220	2 360
		Parshuram	3 190	2 165	545	5 900
		Chagalnaiya	5 750	3 905	975	10 630
		Mirsarai (Ctg) 1/2	2 385	1 490	595	4 470
		Fatikchari " 1/3	1 130	710	285	2 125
		Ramgarh (CHT)	1 140	570	290	2 000
		Khagrachari "	455	230	115	800
		Dighinala "	455	230	115	800
		Mahalchari "	25	10	5	40
		Bagaichari "	345	170	85	600
		Longadu "	230	115	55	400
		Sub-Total	25 320	16 535	4 800	46 655
H2	Chaumuhani	Begumganj	7 665	5 210	1 295	14 170
		Senbag	1 915	1 300	325	3 540
		Sudharam	5 750	3 905	975	10 630
		Chatkhil	1 595	1 085	270	2 950
		Ramganj	1 275	865	220	2 360
		Sub-Total	18 200	12 365	3 085	33 650
H3	Lakamipur	Lakamipur	4 155	2 820	705	7 680
		Raipur	3 190	2 165	545	5 900
		Ramgati	3 830	2 600	650	7 080
		Sub-Total	11 175	7 585	1 900	20 660
H4	Hatiya	Hatiya	4 470	3 040	760	8 270
		TOTAL	59 165	39 525	10 545	109 235

Ctg: Chittagong

CHT: Chittagong Hill Tracts

TABLE 3-3

POP LOCATIONS, SERVICE AREAS AND PRODUCTWISE SALES PROJECTIONS, 1985

COMILLA DISTRICT

NFSP Ref.	POP Location	Service Area (Thanas)	1985 Sales Projection (Tons) Urea	TSP	MP	Total
I1	Comilla	Comilla	6 430	5 645	1 785	13 860
		Chowddagram 1/2	2 335	2 050	650	5 035
		Barura 1/2	2 045	1 795	570	4 410
		Chandina	4 385	3 850	1 215	9 450
		Burichang	2 925	2 565	810	6 300
		Debidwar	3 510	3 080	970	7 560
		Muradnagar	4 090	3 590	1 140	8 820
		Sub-Total	25 720	22 575	7 140	55 435
I2	Brahmanbaria	Brahmanbaria	7 015	6 155	1 950	15 120
		Kasba	4 670	4 100	1 300	10 070
		Nabinagar	5 260	4 620	1 460	11 340
		Sarail 1/2	2 045	1 795	570	4 410
		Nasirnagar 2/3	2 730	2 390	760	5 880
		Sub-Total	21 720	19 060	6 040	46 820
I3	Daudkandi	Daudkandi	5 260	4 620	1 460	11 340
		Homna	1 170	1 030	320	2 520
		Matlab Bazar 1/2	2 335	2 050	650	5 035
		Sub-Total	8 765	7 700	2 430	18 895
I4	Chandpur	Chandpur	2 925	2 565	810	6 300
		Matlab Bazar 1/2	2 335	2 050	650	5 035
		Kachua 2/3	2 535	2 225	700	5 460
		Hajiganj 1/2	2 045	1 795	570	4 410
		Faridganj	2 925	2 565	810	6 300
		Sub-Total	12 765	11 200	3 540	27 505
I5	Laksam	Laksam	8 180	7 180	2 270	17 630
		Chowddagram 1/2	2 335	2 050	650	5 035
		Hajiganj 1/2	2 045	1 795	570	4 410
		Kachua 1/3	1 265	1 110	355	2 730
		Barura 1/2	2 045	1 795	570	4 410
		Sub-Total	15 870	13 930	4 415	34 215
		TOTAL	84 840	74 465	23 565	182 870

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TABLE 3-3

PDP LOCATIONS, SERVICE AREAS AND PRODUCTWISE SALES PROJECTIONS, 1985

SYLHET DISTRICT

NFSP Ref.	PDP Location	Service Area (Thana)	1985 Sales Projection (Tons) Urea	TSP	MP	Total
J1	Laskarpur	Habiganj	3 380	1 755	605	5 740
		Chunarughat	3 380	1 755	605	5 740
		Bahubal	1 220	635	215	2 070
		Lakhai	2 365	1 230	425	4 020
		Madhabpur	3 380	1 755	605	5 740
		Nabiganj 2/3	360	185	65	610
		Baniachung 1/3	1 015	525	185	1 725
		Sub-Total	15 100	7 840	2 705	25 645
J2	Kulaura	Kulaura	3 040	1 580	550	5 170
		Barlekha	1 085	565	190	1 840
		Sub-Total	4 125	2 145	740	7 010
J3	Azmiriganj	Azmiriganj	2 365	1 230	425	4 020
		Baniachung 2/3	2 025	1 055	365	3 445
		Nabiganj 1/3	180	95	35	310
		Jagannathpur	810	420	150	1 380
		Sulla	1 690	880	300	2 870
		Dirai 1/2	505	260	95	860
		Khaliajuri (Kishoreganj)	2 280	1 520	600	4 400
		Itna 1/2 (Kishoreganj)	2 280	1 520	600	4 400
		Sub-Total	12 135	6 980	2 570	21 685
J4	Jamalganj	Jamalganj 3/4	1 270	660	225	2 155
		Tahirpur	1 010	525	185	1 720
		Dharmapasha	1 355	705	250	2 310
		Sub-Total	3 635	1 890	660	6 185
J5	Sunamganj	Sunamganj	2 030	1 055	365	3 450
		Jamalganj 1/4	420	220	75	715
		Dirai 1/2	505	265	90	860
		Chhatak	2 365	1 230	425	4 020
		Sub-Total	5 320	2 770	955	9 045

TABLE 3-3

PDP LOCATIONS, SERVICE AREAS AND PRODUCTWISE SALES PROJECTIONS, 1985

SYLHET DISTRICT

NFSP Ref.	PDP Location	Service Area (Thanas)	1985 Sales Projection (Tons) Urea	TSP	MP	Total
J6T	Chhatak	(Transit Point)				
J7	Sylhet	Sylhet	2 705	1 410	485	4 600
		Biswanath	1 145	595	210	1 950
		Golapganj	880	455	155	1 490
		Bianibazar	470	245	85	800
		Zakiganj	605	315	110	1 030
		Kanaighat	540	280	100	920
		Jaintiapur	205	110	35	350
		Gowainghat	470	245	85	800
		Fenchuganj	335	175	60	570
		Balaganj	135	70	25	230
		Tajpur	335	175	60	570
		Sub-Total	7 825	4 075	1 410	13 310
J8	Srimangal	Srimangal	1 355	705	250	2 310
		Moulvibazar	1 690	880	300	2 870
		Rajnagar	1 010	525	185	1 720
		Kamalganj	2 365	1 230	425	4 020
		Sub-Total	6 420	3 340	1 160	10 920
		TOTAL	54 560	29 040	10 200	93 800

TABLE 3-3 POP LOCATIONS, SERVICE AREAS AND PRODUCTWISE SALES PROJECTIONS, 1985

RAJSHAHI DISTRICT

NFSP Ref.	POP Location	Service Area (Thanas)	1985 Sales Projection (Tons) Urea	TSP	MP	Total
K1	Rajshahi	Paba	3 890	2 955	1 145	7 990
		Charghat	3 890	2 955	1 145	7 990
		Puthia	1 950	1 480	570	4 000
		Durgapur	1 110	845	325	2 280
		Mohanpur	1 110	845	325	2 280
		Bagmara 1/2	1 110	845	325	2 280
		Tanore 1/2	1 250	950	365	2 565
		Godagari 2/3	2 220	1 685	655	4 560
		Sub-Total	16 530	12 560	4 855	33 945
K2	Amnura	Nawabganj	3 330	2 530	980	6 840
		Shibganj	1 390	1 060	400	2 850
		Godagari 1/3	1 110	845	325	2 280
		Tanore 1/2	1 250	950	365	2 565
		Nachole 1/2	1 110	845	325	2 280
		Sub-Total	8 190	6 230	2 395	16 815
K3	Rohanpur	Nachole 1/2	1 110	845	325	2 280
		Gomastapur	1 950	1 480	570	4 000
		Bholahat	285	215	80	580
		Niamatpur	2 220	1 690	650	4 560
		Poraha 1/2	1 665	1 265	490	3 420
		Sub-Total	7 230	5 495	2 115	14 840
K4	Natore	Natore	2 775	2 110	815	5 700
		Singra	2 500	1 900	730	5 130
		Bagatipura	1 665	1 265	490	3 420
		Lalpur	3 330	2 530	980	6 840
		Baraigram	1 665	1 265	490	3 420
		Gurudaspur	1 665	1 265	490	3 420
		Sub-Total	13 600	10 335	3 995	27 930

TABLE 3-3

POP LOCATIONS, SERVICE AREAS AND
PRODUCTWISE SALES PROJECTIONS, 1985

RAJSHAHI DISTRICT

NFSP Ref.	POP Location	Service Area (Thanas)	1985 Sales Projection (Tons)			
			Urea	TSP	MP	Total
K5	Atrai	Atrai	3 330	2 530	980	6 840
		Raninagar 1/2	1 385	1 055	410	2 850
		Bagmara 1/2	1 110	845	325	2 280
		Manda 1/2	1 810	1 370	530	3 710
		Sub-Total	7 635	5 800	2 245	15 680
		TOTAL	53 185	40 420	15 605	109 210

TABLE 3-3 PDP LOCATIONS, SERVICE AREAS AND PRODUCTWISE SALES PROJECTIONS, 1985

RANGPUR DISTRICT

NFSP Ref.	PDP Location	Service Area (Thanas)	1985 Sales Projection (Tons) Urea	TSP	MP	Total
L1	Rangpur	Rangpur	4 500	3 900	1 500	9 900
		Kawnia	1 000	870	330	2 200
		Pirgacha	2 000	1 730	670	4 400
		Mithapukur	5 000	4 330	1 670	11 000
		Gangachara	2 000	1 730	670	4 400
		Badarganj 1/2	1 250	1 085	415	2 750
		Pirganj 1/2	1 875	1 625	625	4 125
		Kishoreganj 1/2	1 500	1 300	500	3 300
		Sub-Total	19 125	16 570	6 380	42 075
L2	Lalmonirhat	Shown under L7 Mahendranagar				
L3	Saidpur	Saidpur	1 750	1 515	585	3 850
		Nilphamari	3 500	3 035	1 165	7 700
		Kishoreganj 1/2	1 500	1 300	500	3 300
		Parbatipur (Dinajpur)	4 960	3 840	1 600	10 400
		Badarganj 1/2	1 250	1 085	415	2 750
		Sub-Total	12 960	10 775	4 265	28 000
L4	Domar	Domar	1 750	1 515	585	3 850
		Dimla	1 500	1 300	500	3 300
		Jaldhaka	2 500	2 170	830	5 500
		Debiganj (Dinajpur)	3 100	2 400	1 000	6 500
		Sub-Total	8 850	7 385	2 915	19 150
L5	Kurigram	Shown under L7 Mahendranagar				
L6	Gaibandha	Gaibandha	3 000	2 600	1 000	6 600
		Sundarganj	3 250	2 815	1 085	7 150
		Phulchari	1 250	1 085	415	2 750
		Saghata	1 750	1 515	585	3 850
		Sadullapur	2 250	1 950	750	4 950
		Palashbari	2 000	1 730	670	4 400
		Gobindaganj	5 000	4 330	1 670	11 000
		Pirganj 1/2	1 875	1 620	630	4 125
		Sub-Total	20 375	17 645	6 805	44 825

TABLE 3-3

PDP LOCATIONS, SERVICE AREAS AND
PRODUCTWISE SALES PROJECTIONS, 1985

RANGPUR DISTRICT

NFSP Ref.	PDP Location	Service Area (Thana)	1985 Sales Projection (Tons) Urea	TSP	MP	Total
L7	Mahandranagar	Lalmonirhat	3 500	3 035	1 165	7 700
		Kaliganj	3 250	2 815	1 085	7 150
		Hatibandha	1 500	1 300	500	3 300
		Patgram	1 250	1 085	415	2 750
		Kurigram	1 750	1 515	585	3 850
		Phulbari	1 000	870	330	2 200
		Nageswari	2 500	2 170	830	5 500
		Bhurungamari	1 250	1 085	415	2 750
		Ulipur	3 500	3 035	1 165	7 700
		Chilmari	1 000	870	330	2 200
		Rawmari	1 250	1 085	415	2 750
		Sub-Total	21 750	18 865	7 235	47 850
		TOTAL	83 060	71 240	27 600	181 900

TABLE 3-3 POP LOCATIONS, SERVICE AREAS AND PRODUCTWISE SALES PROJECTIONS, 1985

BOGRA DISTRICT

NFSP Ref.	PDP Location	Service Area (Thana)		1985 Sales Projection (Tons) Urea	TSP	MP	Total
M1	Santahar	Adamdighi		2 840	1 875	555	5 270
		Dubchanchia		2 610	1 725	515	4 850
		Akkelpur		2 610	1 725	515	4 850
		Raninagar (Rajshahi)	1/2	1 390	1 055	405	2 850
		Naogaon	"	4 450	3 385	1 295	9 130
		Manda	" 1/2	1 805	1 375	530	3 710
		Mahadebpur	"	3 890	2 955	1 145	7 990
		Badalgachi	"	1 950	1 480	570	4 000
		Dhamoirhat	"	2 775	2 110	815	5 700
		Patnitala	"	3 890	2 955	1 145	7 990
		Porsha	" 1/2	1 665	1 265	490	3 420
		Sub-Total		29 875	21 905	7 980	59 760
M2	Joypurhat	Joypurhat		5 230	3 455	1 025	9 710
		Panchbibi		3 370	2 225	655	6 250
		Khetlal		5 600	3 700	1 100	10 400
		Sub-Total		14 200	9 380	2 780	26 360
M3	Bogra	Bogra		5 230	3 455	1 025	9 710
		Kahaloo		2 610	1 725	515	4 850
		Shibganj		5 230	3 455	1 025	9 710
		Gabtali		6 720	4 440	1 320	12 480
		Sariakandi		3 880	2 565	765	7 210
		Dhunat		3 730	2 465	735	6 930
		Nandigram		2 610	1 725	515	4 850
		Sherpur		3 730	2 465	735	6 930
		Kazipur (Pabna)	1/2	2 310	1 630	385	4 325
		Sub-Total		36 050	23 925	7 020	66 995
		TOTAL		80 125	55 210	17 780	153 115

TABLE 3-3 POP LOCATIONS, SERVICE AREAS AND PRODUCTWISE SALES PROJECTIONS, 1985

PABNA DISTRICT

NFSP Ref.	POP Location	Service Area (Thanas)	1985 Sales Projection (Tons) Urea	TSP	MP	Total
N1	Muladuli	Ishurdi	1 540	1 095	255	2 890
		Atgharia 2/3	1 025	730	170	1 925
		Chatmohar 1/2	1 540	1 090	255	2 885
		Sub-Total	4 105	2 915	680	7 700
N2	Pabna	Pabna	3 690	2 615	615	6 920
		Sujanagar	2 465	1 745	410	4 620
		Santhia 1/2	1 075	765	180	2 020
		Atgharia 1/3	515	365	85	965
		Sub-Total	7 745	5 490	1 290	14 525
N3	Baghabari/ Shahjadpur	Shahjadpur	5 225	3 705	870	9 800
		Faridpur	1 540	1 095	255	2 890
		Chatmohar 1/2	1 540	1 085	260	2 885
		Santhia 1/2	1 080	760	180	2 020
		Bara	1 540	1 095	255	2 890
		Chouhali 1/2	155	110	25	290
		Sub-Total	11 080	7 850	1 845	20 775
N4	Sirajganj	Sirajganj	5 225	3 705	870	9 800
		Kamarkhand	925	650	155	1 730
		Belkuchi	1 540	1 095	255	2 890
		Chouhali 1/2	155	110	25	290
		Kazipur 1/2	2 305	1 635	385	4 325
		Sub-Total	10 150	7 195	1 690	19 035
N5	Ullapara	Ullapara	5 840	4 130	980	10 950
		Tarash	2 155	1 525	360	4 040
		Raiganj	4 615	3 265	770	8 650
		Sub-Total	12 610	8 920	2 110	23 640
		TOTAL	45 690	32 370	7 615	85 675

TABLE 3-3 PDP LOCATIONS, SERVICE AREAS AND PRODUCTWISE SALES PROJECTIONS, 1985

DINAJPUR DISTRICT

NFSP Ref.	PDP Location	Service Area (Thanas)	1985 Sales Projection (Tons) Urea	TSP	MP	Total
01	Dinajpur	Dinajpur	4 960	3 840	1 600	10 400
		Biral	2 480	1 920	800	5 200
		Chirirbandar	3 100	2 400	1 000	6 500
		Kaharul	1 240	960	400	2 600
		Khansama	1 240	960	400	2 600
		Birganj	3 100	2 400	1 000	6 500
		Sub-Total	16 120	12 480	5 200	33 800
02	Shibganj	Thakurgaon	7 440	5 760	2 400	15 600
		Baliadanga	1 240	960	400	2 600
		Ranisankail	2 480	1 920	800	5 200
		Haripur	620	480	200	1 300
		Pirganj	4 960	3 480	1 600	10 400
		Bochaganj	2 480	1 920	800	5 200
		Sub-Total	19 220	14 880	6 200	40 300
03	Panchagar	Panchagar	2 480	1 920	800	5 200
		Boda	3 100	2 400	1 000	6 500
		Atwari	1 860	1 440	600	3 900
		Tetulia	1 240	960	400	2 600
		Sub-Total	8 680	6 720	2 800	18 200
04	Charkai	Phulbari	3 720	2 880	1 200	7 800
		Nawabganj	2 480	1 920	800	5 200
		Hakimpur	1 860	1 440	600	3 900
		Ghoraghat	1 860	1 440	600	3 900
		Sub-Total	9 920	7 680	3 200	20 800
05T	Parbatipur	(Transit Point)				
		TOTAL	53 940	41 760	17 400	113 100

TABLE 3-3 POP. LOCATIONS, SERVICE AREAS AND PRODUCTWISE SALES PROJECTIONS, 1985

KHULNA DISTRICT

NFSP Ref.	POP Location	Service Area (Thanas)	1985 Sales Projection (Tons) Urea	TSP	MP	Total
P1	Satkhira	Satkhira	3 240	1 750	620	5 610
		Tala Magura	1 950	1 050	380	3 380
		Kalaroa	3 240	1 750	620	5 610
		Debnath	780	420	150	1 350
		Assasuni	715	385	140	1 240
		Kaliganj	1 950	1 050	380	3 380
		Syamnagar	715	385	140	1 240
		Sub-Total	12 590	6 790	2 430	21 810
P2	Bagerhat	Bagerhat	1 300	700	250	2 250
		Fakirhat	655	350	125	1 130
		Kachua	655	350	125	1 130
		Rampal	655	350	125	1 130
		Sub-Total	3 265	1 750	625	5 640
P3T	Chalna	(Transit Point)				
P4T	Shiromoni	(Transit Point)				
P5	Roosevelt Jetty	Khulna 1/2	260	140	50	450
		Dumuria	1 625	875	310	2 810
		Baitaghata	325	175	60	560
		Paikgacha	1 300	700	250	2 250
		Dacope	325	175	60	560
		Sub-Total	3 835	2 065	730	6 630
P6	Rajapur	Khulna 1/2	260	140	50	450
		Daulatpur	325	175	60	560
		Fultala	520	280	100	900
		Terakhada	655	350	125	1 130
		Mollahat	1 300	700	250	2 250
		Abhoynagar 1/3 (Jessore)	570	460	115	1 145
		Sub-Total	3 630	2 105	700	6 435
		TOTAL	23 320	12 710	4 485	40 515

TABLE 3-3 POP LOCATIONS, SERVICE AREAS AND PRODUCTWISE SALES PROJECTIONS, 1985

BARISAL DISTRICT

NFSP Ref.	POP Location	Service Area (Thanas)	1985 Sales Projection (Tons) Urea	TSP	MP	Total
Q1	Bhola	Bhola	4 850	2 130	680	7 660
		Daulatkhan	2 120	930	300	3 350
		Borhanuddin	5 150	2 260	720	8 130
		Lalmohan	3 640	1 600	510	5 750
		Charfasson	3 640	1 600	510	5 750
		Tazumuddin	1 515	660	215	2 390
		Mehadiganj	3 640	1 600	510	5 750
		Hijla	1 515	660	215	2 390
		Sub-Total	26 070	11 440	3 660	41 170
Q2	Kawkhali	Kawkhali	610	265	85	960
		Rajapur	1 215	535	170	1 920
		Jhalakathi	1 820	795	255	2 870
		Pirozpur	1 820	795	255	2 870
		Swarupkathi	1 215	535	170	1 920
		Nazirpur	1 515	660	215	2 390
		Banaripara	1 215	535	170	1 920
		Sub-Total	9 410	4 120	1 320	14 850
Q3	Tushkhali	Mathbaria	4 245	1 865	590	6 700
		Bhandaria	1 515	660	215	2 390
		Kathalia	910	405	125	1 440
		Bamna (Patuakhali)	1 585	705	220	2 510
		Patharghata "	2 110	950	290	3 350
		Morelganj (Khulna)	1 950	1 050	380	3 380
		Sarankhola "	1 300	700	250	2 250
		Sub-Total	13 615	6 335	2 070	22 020

TABLE 3-3 POP LOCATIONS, SERVICE AREAS AND PRODUCTWISE SALES PROJECTIONS, 1985

BARISAL DISTRICT

NFSP Ref.	POP Location	Service Area (Thanas)	1985 Sales Projection (Tons)			
			Urea	TSP	MP	Total
Q4	Barisal	Barisal	3 030	1 335	425	4 790
		Bakerganj	1 820	795	255	2 870
		Nalchiti	1 515	660	215	2 390
		Babuganj	2 120	930	300	3 350
		Uzirpur	1 515	660	215	2 390
		Muladi 2/3	1 215	530	170	1 915
		Gournadi 1/2	1 515	670	210	2 395
		Sub-Total	12 730	5 580	1 790	20 100
		TOTAL	61 825	27 475	8 840	98 140

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TABLE 3-3

POP LOCATIONS, SERVICE AREAS AND PRODUCTWISE SALES PROJECTIONS, 1985

PATUAKHALI DISTRICT

NFSP Ref.	POP Location	Service Area (Thana)	1985 Sales Projection (Tons)			
			Urea	TSP	MP	Total
R1	Patuakhali	Patuakhali	3 165	1 420	435	5 020
		Mirzaganj	1 585	705	220	2 510
		Betagi	2 110	950	290	3 350
		Galachipa	2 110	950	290	3 350
		Bauphal	5 265	2 360	725	8 350
		Sub-Total	14 235	6 385	1 960	22 580
R2	Barguna	Barguna	7 375	3 305	1 020	11 700
		Amtali	2 110	950	290	3 350
		Khepupara & Kalapara	1 585	705	220	2 510
		Sub-Total	11 070	4 960	1 530	17 560
		TOTAL	25 305	11 345	3 490	40 140

TABLE 3-3 PDP LOCATIONS, SERVICE AREAS AND PRODUCTWISE SALES PROJECTIONS, 1985

JESSORE DISTRICT

NFSP Ref.	PDP Location	Service Area (Thanas)	1985 Sales Projection (Tons) Urea	TSP	MP	Total
S1	Jessore	Jessore	3 675	2 940	735	7 350
		Bagherpara	2 695	2 155	540	5 390
		Manirampur	2 940	2 350	590	5 880
		Abhoynagar 2/3	1 150	915	230	2 295
		Keshabpur	2 205	1 765	440	4 410
		Jhikargacha	3 430	2 745	685	6 860
		Sarsa	3 920	3 140	780	7 840
		Sub-Total	20 015	16 010	4 000	40 025
S2	Kaliganj	Kaliganj	3 675	2 940	735	7 350
		Kotchandpur	1 475	1 180	295	2 950
		Maheshpur	2 940	2 350	590	5 880
		Sub-Total	8 090	6 470	1 620	16 180
S3	Magura	Magura	3 430	2 745	685	6 860
		Sripur	1 720	1 375	345	3 440
		Mohammadpur	980	785	195	1 960
		Salikha	1 720	1 375	345	3 440
		Sub-Total	7 850	6 280	1 570	15 700
S4	Narail	Narail	2 205	1 765	440	4 410
		Lohagara	980	785	195	1 960
		Kalia	245	195	50	490
		Sub-Total	3 430	2 745	685	6 860
S5	Jhenaidah	Jhenaidah	3 675	2 940	735	7 350
		Sailkupa	4 165	3 330	835	8 330
		Harinakunda	2 205	1 765	440	4 410
		Sub-Total	10 045	8 035	2 010	20 090
		TOTAL	49 430	39 540	9 885	98 855

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TABLE 3-3 PDP LOCATIONS, SERVICE AREAS AND PRODUCTWISE SALES PROJECTIONS, 1985

KUSHTIA DISTRICT

NFSP Ref.	PDP Location	Service Area (Thanas)	1985 Sales Projection (Tons) Urea	TSP	MP	Total
T1	Chuadanga	Chuadanga	3 600	2 880	720	7 200
		Alamdanga	4 400	3 520	880	8 800
		Damurhuda	4 800	3 840	960	9 600
		Jibannagar	1 600	1 280	320	3 200
		Meherpur	4 000	3 200	800	8 000
		Gangni 1/2	2 000	1 600	400	4 000
		Sub-Total	20 400	16 320	4 080	40 800
T2	Kushtia	Kushtia	4 800	3 840	960	9 600
		Khoksha	800	640	160	1 600
		Kumarkhali	2 000	1 600	400	4 000
		Mirpur	4 240	3 390	850	8 480
		Bheramara	1 760	1 410	350	3 520
		Daulatpur	4 000	3 200	800	8 000
		Gangni 1/2	2 000	1 600	400	4 000
		Sub-Total	19 600	15 680	3 920	39 200
		TOTAL	40 000	32 000	8 000	80 000

TABLE 3-4 PRODUCTWISE FERTILIZER SALES PROJECTIONS AT PDPs, 1985

Sheet 1 of 4

District	NFSP Ref.	PDP Location	Projected Sales at PDPs in 1985 (Tons)			
			Urea	TSP	MP	Total
A. DACCA	A1	Demra	9 955	7 965	2 755	20 675
	A2	Savar	8 520	6 820	2 360	17 700
	A3	Joydebpur	7 365	5 885	2 035	15 285
	A4	Kaliganj	6 580	5 270	1 820	13 670
	A5	Narsingdi	11 730	9 515	3 255	24 500
	A6	Manikganj	4 430	3 545	1 225	9 200
	A7	Sirajdikhan	5 615	4 490	1 555	11 660
	A8	Mirkadim	9 755	7 805	2 700	20 260
	SUB-TOTAL		63 950	51 295	17 705	132 950
B. KISHOREGANJ	B1	Kishoreganj	22 315	15 375	5 750	43 440
	B2	Netrakona	9 120	6 070	2 400	17 590
	B3	Jaria	4 940	3 290	1 300	9 530
	B4	Sararchar	7 030	4 685	1 850	13 565
	B5	Kuliarchar	7 790	5 195	2 050	15 035
	B6	Bhairab	12 230	9 195	3 305	24 730
	SUB-TOTAL		63 425	43 810	16 655	123 890
C. MYMENSINGH & JAMALPUR	C1	Shambhuganj	12 280	9 330	2 955	24 565
	C2	Mymensingh	15 810	12 010	3 795	31 615
	C3	Jamalpur	8 745	6 645	2 100	17 490
	C4	Melandah	10 080	7 660	2 420	20 160
	C5	Sherpur	10 765	8 190	2 575	21 530
	C6	Gaffargaon	12 105	9 200	2 905	24 210
	SUB-TOTAL		69 785	53 035	16 750	139 570
D. TANGAIL	D1	Madhupur	11 855	8 520	3 705	24 080
	D2	Mirzapur	7 855	5 680	2 450	15 985
	D3	Tangail	12 730	9 155	3 970	25 855
	SUB-TOTAL		32 440	23 355	10 125	65 920
E. FARIDPUR	E1	Rajbari	3 990	2 845	995	7 830
	E2	Palong	4 770	3 410	1 190	9 370
	E3	Gopalganj	1 630	1 170	410	3 210
	E4	Tapakhola	11 650	8 310	2 920	22 880
	E5	Madaripur	8 080	5 195	1 785	15 060
	SUB-TOTAL		30 120	20 930	7 300	58 350

TABLE 3-4 PRODUCTWISE FERTILIZER SALES PROJECTIONS AT PDPs, 1985

District	NFSP Ref.	PDP Location	Projected Sales at PDPs in 1985 (Tons) Urea	TSP	MP	Total
F. CHITTAGONG & CHITTAGONG HILL TRACTS	F1	Dohazari	12 100	7 465	3 025	22 590
	F2	Chakaria	7 930	4 815	1 980	14 725
	F3	Cox's bazar	8 630	5 295	2 160	16 085
	F4	Sandwip	3 065	1 915	770	5 750
	F5	Chittagong	34 110	20 985	8 520	63 615
	SUB-TOTAL		65 835	40 475	16 455	122 765
H. NOAKHALI	H1	Feni	25 320	16 535	4 800	46 655
	H2	Chaumuhani	18 200	12 365	3 085	33 650
	H3	Laksmipur	11 175	7 585	1 900	20 660
	H4	Hatiya	4 470	3 040	760	8 270
	SUB-TOTAL		59 165	39 525	10 545	109 235
I. COMILLA	I1	Comilla	25 720	22 575	7 140	55 435
	I2	Brahmanbaria	21 720	19 060	6 040	46 820
	I3	Daudkandi	8 765	7 700	2 430	18 895
	I4	Chandpur	12 765	11 200	3 540	27 505
	I5	Laksam	15 870	13 930	4 415	34 215
	SUB-TOTAL		84 840	74 465	23 565	182 870
J. SYLHET	J1	Laskarpur	15 100	7 840	2 705	25 645
	J2	Kulaura	4 125	2 145	740	7 010
	J3	Azmirigenj	12 135	6 980	2 570	21 685
	J4	Jamalganj	3 635	1 890	660	6 185
	J5	Sunamganj	5 320	2 770	955	9 045
	J6T	Chhatak	--	–	–	–
	J7	Sylhet	7 825	4 075	1 410	13 310
	J8	Srimangal	6 420	3 340	1 160	10 920
	SUB-TOTAL		54 560	29 040	10 200	93 800
K. RAJSHAHI	K1	Rajshahi	16 530	12 560	4 855	33 945
	K2	Amnura	8 190	6 230	2 395	16 815
	K3	Rohanpur	7 230	5 495	2 115	14 840
	K4	Natore	13 600	10 335	3 995	27 930
	K5	Atrai	7 635	5 800	2 245	15 680
	SUB-TOTAL		53 185	40 420	15 605	109 210

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TABLE 3-4 PRODUCTWISE FERTILIZER SALES PROJECTIONS AT PDPs, 1985

Sheet 3 of 4

District	NFSP Ref.	PDP Location	Projected Sales at PDPs in 1985 (Tons) Urea	TSP	MP	Total
L. RANGPUR	L1	Rangpur	19 125	16 570	6 380	42 075
	L2	Lalmonirhat	–	–	–	–
	L3	Saidpur	12 960	10 775	4 265	28 000
	L4	Domar	8 850	7 385	2 915	19 150
	L5	Kurigram	–	–	–	–
	L6	Gaibandha	20 375	17 645	6 805	44 825
	L7	Mahendranagar	21 750	18 865	7 235	47 850
	SUB-TOTAL		83 060	71 240	27 600	181 900
M. BOGRA	M1	Sentahar	29 875	21 905	7 980	59 760
	M2	Joypurhat	14 200	9 380	2 780	26 360
	M3	Bogra	36 050	23 925	7 020	66 995
	SUB-TOTAL		80 125	55 210	17 780	153 115
N. PABNA	N1	Muleduli	4 105	2 915	680	7 700
	N2	Pabna	7 745	5 490	1 290	14 525
	N3	Baghabari/ Shahjadpur	11 080	7 850	1 845	20 775
	N4	Sirajganj	10 150	7 195	1 690	19 035
	N5	Ullapara	12 610	8 920	2 110	23 640
	SUB-TOTAL		45 690	32 370	7 615	85 675
O. DINAJPUR	O1	Dinajpur	16 120	12 480	5 200	33 800
	O2	Shibganj	19 220	14 880	6 200	40 300
	O3	Panchagar	8 680	6 720	2 800	18 200
	O4	Charkai	9 920	7 680	3 200	20 800
	O5T	Parbatipur				
	SUB-TOTAL		53 940	41 760	17 400	113 100
P. KHULNA	P1	Satkhira	12 590	6 790	2 430	21 810
	P2	Bagerhat	3 265	1 750	625	5 640
	P3T	Chalna	–	–	–	–
	P4T	Shiromoni				–
	P5	Roosevelt Jetty	3 835	2 065	730	6 630
	P6	Rajapur	3 630	2 105	700	6 435
	SUB-TOTAL		23 320	12 710	4 485	40 515

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TABLE 3-4 PRODUCTWISE FERTILIZER SALES PROJECTIONS AT PDPs, 1985

District	NFSP Ref.	PDP Location	Projected Sales at PDPs in 1985 (Tons) Urea	TSP	MP	Total
Q. BARISAL	Q1	Bhola	26 070	11 440	3 660	41 170
	Q2	Kawkhali	9 410	4 120	1 320	14 850
	Q3	Tushkhali	13 615	6 335	2 070	22 020
	Q4	Barisal	12 730	5 580	1 790	20 100
	SUB-TOTAL		61 825	27 475	8 840	98 140
R. PATUAKHALI	R1	Patuakhali	14 235	6 385	1 960	22 580
	R2	Barguna	11 070	4 980	1 530	17 580
	SUB-TOTAL		25 305	11 345	3 490	40 140
S. JESSORE	S1	Jessore	20 015	16 010	4 000	40 025
	S2	Kaliganj	8 090	6 470	1 620	16 180
	S3	Magura	7 850	6 280	1 570	15 700
	S4	Narail	3 430	2 745	685	6 860
	S5	Jhenaidah	10 045	8 035	2 010	20 090
	SUB-TOTAL		49 430	39 540	9 885	98 855
T. KUSHTIA	T1	Chuadanga	20 400	16 320	4 080	40 800
	T2	Kushtia	19 600	15 680	3 920	39 200
	SUB-TOTAL		40 000	32 000	8 000	80 000
	GRAND TOTAL		1 040 000	740 000	250 000	2 030 000

TABLE 3-5 SEASONAL PRODUCTWISE FERTILIZER SALES PROJECTIONS AT PDPs, 1985.

NFSP REF	PDP Location	Dry Season (October to March)				Wet Season (April to September)			
		Urea	TSP	MP	Total	Urea	TSP	MP	Total
		Tons	Tons	Tons	Tons	Tons	Tons	Tons	Tons
A	DACCA DISTRICT								
A1	Demra	5 882	4 770	1 650	12 382	3 993	3 196	1 105	8 293
A2	Savar	5 103	4 084	1 413	10 600	3 417	2 736	947	7 100
A3	Joydebpur	4 411	3 525	1 219	9 155	2 984	2 380	816	6 130
A4	Kaliganj	3 941	3 156	1 090	8 187	2 639	2 114	730	5 483
A5	Narsingdi	7 025	5 699	1 949	14 673	4 705	3 816	1 306	9 827
A6	Manikganj	2 653	2 123	734	5 510	1 777	1 422	491	3 690
A7	Sirajdikhan	3 363	2 689	931	6 983	2 252	1 801	624	4 677
A8	Mirkadim	5 842	4 674	1 617	12 133	3 913	3 131	1 083	8 127
	SUB-TOTAL	38 300	30 720	10 603	79 623	25 650	20 576	7 102	53 327
B	KISHOREGANJ DISTRICT								
B1	Kishoreganj	13 364	9 208	3 444	26 016	8 951	6 167	2 306	17 424
B2	Netrakona	5 462	3 635	1 437	10 534	3 658	2 435	963	7 056
B3	Jaria	2 959	1 970	779	5 708	1 981	1 320	521	3 822
B4	Sarerchar	4 210	2 806	1 108	8 124	2 820	1 879	742	5 441
B5	Kuliarchar	4 665	3 111	1 228	9 004	3 125	2 084	822	6 031
B6	Bhairab	7 325	5 507	1 979	14 811	4 905	3 688	1 326	9 919
	SUB-TOTAL	37 985	26 237	9 975	74 197	25 440	17 573	6 680	49 693
C	MYMENSINGH & JAMALPUR DISTRICTS								
C1	Shambhuganj	7 354	5 588	1 770	14 712	4 926	3 742	1 185	9 853
C2	Mymensingh	9 469	7 193	2 273	18 934	6 341	4 817	1 522	12 681
C3	Jamalpur	5 237	3 980	1 258	10 475	3 508	2 665	842	7 015
C4	Melandah	6 037	4 588	1 449	12 074	4 043	3 072	971	8 086
C5	Sherpur	6 447	4 905	1 542	12 894	4 318	3 285	1 033	8 636
C6	Gaffargaon	7 250	5 510	1 740	14 500	4 855	3 690	1 165	9 710
	SUB-TOTAL	41 794	31 764	10 032	83 590	27 991	21 271	6 718	55 980

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TABLE 3-5 SEASONAL PRODUCTWISE FERTILIZER SALES PROJECTIONS AT PDPs, 1985.

NFSP REF	PDP Location	Dry Season (October to March)				Wet Season (April to September)			
		Urea	TSP	MP	Total	Urea	TSP	MP	Total
		Tons	Tons	Tons	Tons	Tons	Tons	Tons	Tons
D	TANGAIL DISTRICT								
D1	Madhupur	7 100	5 103	2 219	14 422	4 785	3 417	1 486	9 688
D2	Mirzapur	4 704	3 402	1 467	9 573	3 151	2 278	983	6 412
D3	Tangail	7 624	5 483	2 378	15 485	5 106	3 672	1 592	10 370
	SUB-TOTAL	19 428	13 988	6 064	39 480	13 042	9 367	4 061	26 440
E	FARIDPUR DISTRICT								
E1	Rajbari	2 390	1 704	596	4 690	1 600	1 141	399	3 140
E2	Palong	2 857	2 042	713	5 612	1 913	1 368	477	3 758
E3	Gopalganj	976	701	246	1 923	654	469	164	1 287
E4	Tepakhola	6 977	4 977	1 749	13 703	4 673	3 333	1 171	9 177
E5	Madaripur	4 839	3 111	1 069	9 019	3 241	2 084	716	6 041
	SUB-TOTAL	18 039	12 535	4 373	34 947	12 081	8 395	2 927	23 403
F&G	CHITTAGONG & CHITTAGONG HILL TRACTS DISTRICTS								
F1	Dohazari	7 247	4 471	1 812	13 530	4 853	2 994	1 213	9 060
F2	Chakaria	4 749	2 884	1 186	8 819	3 181	1 931	794	5 906
F3	Cox'a Bazar	5 169	3 171	1 294	9 634	3 461	2 124	866	6 451
F4	Sandwip	3 065	1 915	770	5 750	-	-	-	-
F5	Chittagong	20 428	12 568	5 103	38 099	13 682	8 417	3 417	25 516
	SUB-TOTAL	40 658	25 009	10 165	75 832	25 177	15 466	6 290	46 933
H	NOAKHALI DISTRICT								
H1	Feni	15 164	9 903	2 875	27 942	10 156	6 632	1 925	18 713
H2	Chaumuhani	10 900	7 405	1 848	20 153	7 300	4 960	1 237	13 497
H3	Lakemipur	6 693	4 543	1 138	12 374	4 482	3 042	762	8 286
H4	Hatiya	4 470	3 040	760	8 270	-	-	-	-
	SUB-TOTAL	37 227	24 891	6 621	68 738	21 938	14 634	3 924	40 496

TABLE 3-5 SEASONAL PRODUCTWISE FERTILIZER SALES PROJECTIONS AT PDPs, 1985.

NFSP REF	PDP Location	Dry Season (October to March)				Wet Season (April to September)			
		Urea	TSP	MP	Total	Urea	TSP	MP	Total
		Tons	Tons	Tons	Tons	Tons	Tons	Tons	Tons
I	COMILLA DISTRICT								
I1	Comilla	15 404	13 520	4 276	33 200	10 316	9 055	2 864	22 235
I2	Brahmanbaria	13 008	11 415	3 617	28 040	8 712	7 645	2 423	18 780
I3	Daudkandi	5 249	4 612	1 455	11 316	3 516	3 088	975	7 579
I4	Chandpur	7 645	6 708	2 120	16 473	5 120	4 492	1 420	11 032
I5	Laksam	9 505	8 343	2 644	20 492	6 365	5 587	1 771	13 723
	SUB-TOTAL	50 811	44 598	14 112	109 521	34 029	29 867	9 453	73 349
J	SYLHET DISTRICT								
J1	Laskarpur	9 043	4 695	1 620	15 358	6 057	3 145	1 085	10 287
J2	Kulaura	2 470	1 285	443	4 198	1 655	860	297	2 812
J3	Azmiriganj	7 268	4 180	1 539	12 987	4 867	2 800	1 031	8 698
J4	Jamalganj	2 177	1 132	395	3 704	1 458	758	265	2 481
J5	Sunamganj	3 186	1 659	572	5 417	2 134	1 111	383	3 628
J6T	Chhatak								
J7	Sylhet	4 686	2 441	844	7 971	3 139	1 634	566	5 339
J8	Srimangal	3 845	2 000	695	6 540	2 575	1 340	465	4 380
	SUB-TOTAL	32 675	17 392	6 108	56 175	21 885	11 648	4 092	37 625
K	RAJSHAHI DISTRICT								
K1	Rajshahi	9 900	7 522	2 908	20 330	6 630	5 038	1 947	13 615
K2	Amnura	4 905	3 731	1 434	10 070	3 285	2 499	961	6 745
K3	Rohanpur	4 330	3 291	1 267	8 888	2 900	2 204	848	5 952
K4	Natore	8 145	6 190	2 393	16 728	5 455	4 145	1 602	11 202
K5	Atrai	4 573	3 474	1 345	9 392	3 062	2 326	900	6 288
	SUB-TOTAL	31 853	24 208	9 347	65 408	21 332	16 212	6 258	43 802

TABLE 3-5 SEASONAL PRODUCTWISE FERTILIZER SALES PROJECTIONS AT PDPs, 1985.

NFSP REF	PDP Location	Dry Season (October to March)				Wet Season (April to September)			
		Urea	TSP	MP	Total	Urea	TSP	MP	Total
		Tons	Tons	Tons	Tons	Tons	Tons	Tons	Tons
L	RANGPUR DISTRICT								
L1	Rangpur	11 454	9 924	3 821	25 199	7 671	6 646	2 559	16 876
L2	Lalmonirhat								
L3	Saidpur	7 762	6 453	2 554	16 769	5 198	4 322	1 711	11 231
L4	Domar	5 300	4 423	1 746	11 469	3 550	2 962	1 169	7 681
L5	Kurigram								
L6	Gaibandha	12 203	10 568	4 076	26 847	8 172	7 077	2 729	17 978
L7	Mahendranagor	13 026	11 298	4 333	28 657	8 724	7 567	2 902	19 193
	SUB-TOTAL	49 745	42 666	16 530	108 941	33 315	28 574	11 070	72 959
M	BOGRA DISTRICT								
M1	Santahar	17 892	13 119	4 779	35 790	11 983	8 786	3 201	23 970
M2	Joypurhat	8 504	5 618	1 665	15 787	5 696	3 762	1 115	10 573
M3	Bogra	21 590	14 329	4 204	40 123	14 460	9 596	2 816	26 872
	SUB-TOTAL	47 986	33 066	10 648	91 700	32 139	22 144	7 132	61 415
N	PABNA DISTRICT								
N1	Muladuli	2 458	1 746	407	4 611	1 647	1 169	273	3 089
N2	Pabna	4 638	3 288	773	8 699	3 107	2 202	517	5 826
N3	Baghabari	6 636	4 701	1 105	12 442	4 444	3 149	740	8 333
N4	Sirajganj	6 079	4 309	1 012	11 400	4 071	2 886	678	7 635
N5	Ullapara	7 552	5 342	1 264	14 158	5 058	3 578	846	9 482
	SUB-TOTAL	27 363	19 386	4 561	51 310	18 327	12 984	3 054	34 365
O	DINAJPUR DISTRICT								
O1	Dinajpur	9 654	7 474	3 114	20 242	6 466	5 006	2 086	13 558
O2	Shibganj	11 511	8 912	3 713	24 136	7 709	5 968	2 487	16 164
O3	Panchagar	5 138	4 025	1 677	10 900	3 482	2 695	1 123	7 300
O4	Charkai	5 941	4 600	1 916	12 457	3 979	3 080	1 284	8 343
OST	Parbatipur								
	SUB-TOTAL	32 304	25 011	10 420	67 735	21 636	16 749	6 980	45 365

TABLE 3-5 SEASONAL PRODUCTWISE FERTILIZER SALES PROJECTIONS AT PDPs, 1985.

NFSP REF	PDP Location	Dry Season (October to March)				Wet Season (April to September)			
		Urea	TSP	MP	Total	Urea	TSP	MP	Total
		Tons	Tons	Tons	Tons	Tons	Tons	Tons	Tons
P	KHULNA DISTRICT								
P1	Satkhira	7 540	4 067	1 455	13 062	5 050	2 723	975	8 748
P2	Bagerhat	1 955	1 048	374	3 377	1 310	702	251	2 263
P3 T	Chalna								
P4 T	Shiromoni								
P5	Roosevelt Jetty	2 297	1 237	437	3 971	1 538	828	293	2 659
P6	Rajapur	2 174	1 261	419	3 854	1 456	844	281	2 581
	SUB-TOTAL	13 966	7 613	2 685	24 264	9 354	5 097	1 800	16 251
Q	BARISAL DISTRICT								
Q1	Bhola	15 613	6 851	2 192	24 656	10 457	4 589	1 468	16 514
Q2	Kawkhali	5 636	2 467	791	8 894	3 774	1 653	529	5 956
Q3	Tushkhali	8 154	3 794	1 240	13 188	5 461	2 541	830	8 832
Q4	Barisal	7 624	3 342	1 072	12 038	5 106	2 238	718	8 062
	SUB-TOTAL	37 027	16 454	5 295	58 776	24 798	11 021	3 545	39 364
R	PATUAKHALI DISTRICT								
R1	Patuakhali	8 525	3 824	1 174	13 523	5 710	2 561	786	9 057
R2	Barguna	6 630	2 971	916	10 517	4 440	1 989	614	7 043
	SUB-TOTAL	15 155	6 795	2 090	24 040	10 150	4 550	1 400	16 100
S	JESSORE DISTRICT								
S1	Jessore	11 987	9 588	2 396	23 971	8 028	6 422	1 604	16 054
S2	Kaliganj	4 845	3 875	970	9 690	3 245	2 595	650	6 490
S3	Magura	4 701	3 761	940	9 402	3 149	2 519	630	6 298
S4	Narail	2 054	1 644	410	4 108	1 376	1 101	275	2 752
S5	Jhenaidah	6 016	4 812	1 204	12 032	4 029	3 223	806	8 058
	SUB-TOTAL	29 603	23 680	5 920	59 203	19 827	15 860	3 965	39 652
T	KUSHTIA DISTRICT								
T1	Chuadanga	12 218	9 774	2 444	24 436	8 182	6 546	1 636	16 364
T2	Kushtia	11 738	9 391	2 348	23 477	7 862	6 289	1 572	15 723
	SUB-TOTAL	23 956	19 165	4 792	47 913	16 044	12 835	3 208	32 087
	TOTAL	625 875	445 178	150 341	1221394	414 125	294 822	99 659	808 606

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TABLE 3-6 MONTHLY SALE TARGETS AND ACTUAL SALES

JULY 1979 TO MAY 1980

Months	Targets (In Long Tons)	Actual Sales (In Long Tons)	Actual Sales in % of Targets	Actual Sales in Dry Season (In Long Tons)	Actual Sales in Wet Season (In Long Tons)
July'79	45,000	43,687	97.08		43,687
August'79	87,000	47,300	54.37		47,300
September'79	91,000	73,525	80.79		73,525
October'79	97,000	84,031	86.63	84,031	
November'79	95,000	90,249	95.00	90,249	
December'79	92,000	74,340	80.80	74,340	
January'80	90,000	92,072	102.30	92,072	
February'80	90,000	88,004	97.78	88,004	
March'80	90,000	72,235	80.26	72,235	
April'80	71,000	44,677	62.93		44,677
May'80	66,000	54,331	82.32		54,331
June'80	86,000	71,930	83.64		71,930
Total	1,000,000	836,381	83.64	500,931	335,450
Percent		100.00		59.89	40.11

Source: BADC Monthly Fertilizer Newsletter No.27, June 15, 1980.

TABLE 3-7 COMPARATIVE MOVEMENT COST BY MODE

SOURCE : CHITTAGONG

(Rate in Taka per Ton)

POP	Destination	Railway		Road		River	
		Mileage	Rate	Mileage	Rate	Mileage	Rate
A1	Narayanganj/Demra	209.25	199.98	154.25	606.60	189.00	120.96
A2	Savar	NA		171.85	675.81	NA	
A3	Joydebpur	192.00	193.22	179.60	749.05	NA	
A4	Kaliganj	NA		NA		209.00	133.76
A5	Narsingdi	163.75	181.32	176.65	694.69	209.00	133.76
A6	Manikganj	NA		197.55	776.88	NA	
A7	Sirajdikhan	NA		NA		190.00	121.60
A8	Mirkadim	NA		NA		178.00	113.92
B1	Kishoreganj	175.25	185.74	NA		NA	
B2	Netrakona	220.75	203.89	NA		NA	
B3	Jaria	224.00	204.79	NA		NA	
B4	Sararchar	158.75	179.27	NA		NA	
B5	Kuliarchar	153.75	176.89	NA		246.00	157.44
B6	Bhairab	145.25	173.83	NA		230.00	147.20
C1	Shambhuganj	213.25	201.65	NA		NA	
C2	Mymensingh	220.00	209.61	NF		NA	
C3	Jamalpur	250.00	221.30	NF		NA	
C4	Melandah	258.00	224.92	NF		NA	
C6	Gaffargaon	224.50 t	204.79	NA		NA	
D1	Madhupur	NA		244.50	961.52	NA	
D2	Mirzapur	NA		199.05	782.27	NA	
D3	Tangail	NA		215.50	846.92	NA	
E4	Tepakhola	NA		NA		196.00	125.44
E5	Madaripur	NA		NA		198.00	126.72

TABLE 3-7

COMPARATIVE MOVEMENT COST BY MODE

SOURCE : CHITTAGONG - (Continued)

(Rate in Taka per Ton)

PDP	Destination	Railway		Road		River	
		Mileage	Rate	Mileage	Rate	Mileage	Rate
F1	Dohazari	29.00	118.98	24.10	168.60	NA	
F2	Chakaria	NA		54.80	205.66	NA	
F3	Cox's Bazar	NA		92.40	243.65	73.00	64.00
F4	Sandwip	NA		NA		48.00	64.00
H1	Feni	55.50	129.87	65.40	195.20	NA	
H2	Chaumuhani	102.50	147.90	81.30	252.20	NA	
H3	Lakamipur	NA		101.30	314.24	NA	
H4	Hatiya	NA		NA		90.00	64.00
I1	Comilla	95.25	144.42	101.85	266.45	NA	
I2	Brahmanbaria	134.75	169.02	151.70	332.95	NA	
I3	Daudkandi	NA		134.30	319.65	180.00	115.20
I4	Chandpur	112.25	154.97	148.65	329.15	149.00	95.38
I5	Laksam	80.50	137.47	116.00	220.40	NA	
J1	Laskarpur	152.75	172.86	NF		NA	
J2	Kulaura	204.25	189.19	NF		NA	
J3	Azmiriganj	NA		NA		303.00	193.92
J5	Sunamganj	NF		NA		365.40	233.88
J6T	Chhatak	255.00	207.22	281.55	733.42	392.10	250.94
J7	Sylhet	234.50	200.53	268.95	700.60	426.40	272.90
J8	Srimangal	179.25	177.50	217.90	567.62	NA	
K1	Rajshahi	408.00[a]	328.75	NF		NA	
K2	Amnura	431.50[a]	338.50	NF		NA	
K3	Rohanpur	447.00[a]	343.04	NF		NA	
K4	Natore	371.75[a]	316.84	NF		NA	
K5	Atrai	357.00[a]	310.26	NF		NA	

TABLE 3-7 COMPARATIVE MOVEMENT COST BY MODE

SOURCE : CHITTAGONG - (Continued)

Sheet 3 of 4

(Rate in Taka per Ton)

PDP Destination	Railway		Road		River	
	Mileage	Rate	Mileage	Rate	Mileage	Rate
L1 Rangpur	348.75	262.09	NF		NA	
L3 Saidpur	381.00	275.93	NF		NA	
L4 Domar	403.75[P]	295.06	NF		NA	
L6 Gaibandha	304.75	246.89	NF		NA	
L7 Mahendranagar	344.75	261.18	NF		NA	
M1 Santahar	345.50	276.91	NF		NA	
M2 Joypurhat	367.50[S]	315.48	NF		NA	
M3 Bogra	319.50[S]	253.51	NF		NA	
N1 Muladuli	400.25[S]	330.64	NF		NA	
N3 Baghabari	NA		NF		250.00	160.00
N4 Sirajganj	443.25[S]	343.04	NF		NF	
N5 Ullapara	428.50[S]	334.76	NF		NA	
O1 Dinajpur	390.50	276.38	NF		NA	
O2 Shibganj	426.75	290.79	NF		NA	
O3 Panchagar	453.75	301.92	NF		NA	
O4 Chorkai	390.00[P]	289.17	NF		NA	
O5T Parbatipur	371.75	271.73	NF		NA	
P3T Chalna	NA		NA		230.00	147.20
P4T Shiromoni	NF		NF		269.00	172.16
P5 Roosevelt Jetty	NF		NF		260.00	166.40
Q1 Bhola	NA		NA		170.00	108.80
Q2 Kawkhali	NA		NA		172.00	110.08
Q3 Tushkhali	NA		NA		195.00	124.80
Q4 Barisal	NA		NA		145.00	92.80

TABLE 3-7 COMPARATIVE MOVEMENT COST BY MODE

SOURCE : CHITTAGONG - (Continued)

Sheet 4 of 4

(Rate in Taka per Ton)

POP Destination	Railway		Road		River	
	Mileage	Rate	Mileage	Rate	Mileage	Rate
R1 Patuakhali	NA		NA		193.00	123.52
R2 Barguna	NA		NA		205.00	137.20

NA : Not Applicable p : Via Parbatipur t : Via Tongi

NF : Not Feasible s : Via Santahar

Source : (1) For Railway = Bangladesh Railway (BR).

(2) For Road = Bangladesh Agricultural Development Corporation (BADC) & Bangladesh Transport Survey (BTS).

(3) ForRiver = Bangladesh Inland Water Transport Authority (BIWTA) & Bangladesh Inland Water Transport Corporation (BIWTC).

TABLE 3-7A : RAILWAY CHARGES FOR MOVEMENT OF FERTILIZER

ORIGIN: CHITTAGONG

(Taka Per Ton)

PDP Destination	Mileage	Freight + Terminal Charge	Tran-shipment Charge	Ferry Charge	Ghat Charge	Pontage Charge	Siding Charge at		Addit'l. Haulage Charge	Tranship-ment Siding Charge (Santahar)	Total Charge
							Origin	Desti-nation			
1	2	3	4	5	6	7	8	9	10	11	12
A1 Narayanganj/ Demra	209.25	175.57	-	-	-	9.60	4.88	1.76	8.17	-	199.98
A3 Joydebpur *	192.00	169.44	-	-	-	9.60	4.88	1.13	8.17	-	193.22
A5 Narsingdi *	163.75	157.54	-	-	-	9.60	4.88	1.13	8.17	-	181.32
B1 Kishoreganj	175.25	161.96	-	-	-	9.60	4.88	1.13	8.17	-	185.74
B2 Netrakona	220.75	178.97	-	-	-	9.60	4.88	2.27	8.17	-	203.89
B3 Jaria	224.00	181.01	-	-	-	9.60	4.88	1.13	8.17	-	204.79
B4 Sarerchar	158.75	155.49	-	-	-	9.60	4.88	1.13	8.17	-	179.27
B5 Kuliarchar *	153.75	153.11	-	-	-	9.60	4.88	1.13	8.17	-	176.89
B6 Bhairab	145.25	150.05	-	-	-	9.60	4.88	1.13	8.17	-	173.83
C1 Shambhuganj	213.25	176.93	-	-	-	9.60	4.88	2.27	8.17	-	201.85
C2 Mymensingh	220.00	178.97	-	-	-	16.46	4.88	1.13	8.17	-	209.61
C3 Jamalpur	250.00	189.52	-	-	-	16.46	4.88	2.27	8.17	-	221.30
C4 Melandah	258.00	194.28	-	-	-	16.46	4.88	1.13	8.17	-	224.92
C5 Gaffargaon	224.50 t	181.01	-	-	-	9.60	4.88	1.13	8.17	-	204.79
F1 Dohazari *	29.00	104.80	-	-	-	-	4.88	1.13	8.17	-	118.98

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TABLE 3-7A : RAILWAY CHARGES FOR MOVEMENT OF FERTILIZER

ORIGIN: CHITTAGONG - (Continued)

(Taka Per Ton)

PDP Destination	Mileage	Freight + Terminal Charge	Tran-shipment Charge	Ferry Charge	Ghat Charge	Pontage Charge	Siding Charge at		Addit'l. Haulage Charge	Tranship-ment Siding Charge (Santahar)	Total Charge
							Origin	Desti-nation			
1	2	3	4	5	6	7	8	9	10	11	12
H1 Feni $	55.50	115.69	-	-	-	-	4.88	1.13	8.17	-	129.87
H2 Chaumuhani	102.50	133.72	-	-	-	-	4.88	1.13	8.17	-	147.90
I1 Comilla	95.25	129.30	-	-	-	-	4.88	2.27	8.17	-	144.42
I2 Brahmanbaria	134.75	145.63	-	-	-	-	4.88	10.34	8.17	-	169.02
I4 Chandpur $	112.25	138.14	-	-	-	-	4.88	3.78	8.17	-	154.97
I5 Laksam	80.50	122.15	-	-	-	-	4.88	2.27	8.17	-	137.47
J1 Laskarpur	162.75	157.54	-	-	-	-	4.88	2.27	8.17	-	172.86
J2 Kulaura	204.25	173.87	-	-	-	-	4.88	2.27	8.17	-	189.19
J5T Chhatak	255.00	191.90	-	-	-	-	4.88	2.27	8.17	-	207.22
J7 Sylhet	234.50	184.08	-	-	-	-	4.88	3.40	8.17	-	200.53
J8 Sriamgal	179.25	163.32	-	-	-	-	4.88	1.13	8.17	-	177.50
K1 Rajshahi	408.00 $	246.68	12.79	1.36	3.82	16.46	4.88	2.27	8.17	32.32	328.75
K2 Amnura	431.50 $	257.57	12.79	1.36	3.82	16.46	4.88	1.13	8.17	32.32	338.50
K3 Rohanpur	447.00 $	260.97	12.79	1.36	3.82	16.46	4.88	2.27	8.17	32.32	343.04
K4 Natore	371.75 $	234.77	12.79	1.36	3.82	16.46	4.88	2.27	8.17	32.32	316.84
K5 Atrai	357.00 $	229.33	12.79	1.36	3.82	16.46	4.88	1.13	8.17	32.32	310.26

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TABLE 3-7A : RAILWAY CHARGES FOR MOVEMENT OF FERTILIZER

ORIGIN: CHITTAGONG - (Continued)

(Taka Per Ton)

FDP Destination	Mileage	Freight + Terminal Charge	Tran-shipment Charge	Ferry Charge	Ghat Charge	Pontage Charge	Siding Charge at Origin	Siding Charge at Destination	Addit'l. Haulage Charge	Transhipment Siding Charge (Santahar)	Total Charge
1	2	3	4	5	6	7	8	9	10	11	12
L1 Rangpur	348.50	226.27	-	1.36	3.82	16.46	4.88	1.13	8.17	-	262.09
L3 Saidpur	381.00	238.52	-	1.36	3.82	16.46	4.88	2.72	8.17	-	275.93
L4 Domar	403.75[p]	246.68	12.79	1.36	3.82	16.46	4.88	0.90	8.17	-	295.08
L6 Gaibandha	304.75	209.93	-	1.36	3.82	16.46	4.88	2.27	8.17	-	246.89
L7 Mahendranagar	344.75	224.22	-	1.36	3.82	16.46	4.88	2.27	8.17	-	261.18
M1 Santahar	345.50	224.22	-	1.36	3.82	16.46	4.88	18.00	8.17	-	276.91
M2 Joypurhat	367.50[s]	233.41	12.79	1.36	3.82	16.46	4.88	2.27	8.17	32.32	315.48
M3 Bogra	319.50	215.04	-	1.36	3.82	16.46	4.88	3.78	8.17	-	253.51
N1 Muladuli	400.25[s]	243.28	12.79	1.36	3.82	16.46	4.88	7.56	8.17	32.32	330.64
N4 Sirajganj	443.25[s]	260.97	12.79	1.36	3.82	16.46	4.88	2.27	8.17	32.32	343.04
N5 Ullapara	428.50[s]	253.83	12.79	1.36	3.82	16.46	4.88	1.13	8.17	32.32	334.76
O1 Dinajpur	390.50	240.56	-	1.36	3.82	16.46	4.88	1.13	8.17	-	276.38
O2 Shibganj	426.75	253.83	-	1.36	3.82	16.46	4.88	2.27	8.17	-	290.79
O3 Panchagar	453.75	264.71	-	1.36	3.82	16.46	4.88	2.52	8.17	-	301.92
O4 Charkai	390.00[p]	240.56	12.79	1.36	3.82	16.46	4.88	1.13	8.17	-	289.17
O5T Parbatipur	371.75	234.77	-	1.36	3.82	16.46	4.88	2.27	8.17	-	271.73

t: Via Tongi

s: Via Santahar

* Rail facilities can't be used

p: Via Parbatipur

Source : Bangladesh Railway (BR)

TABLE 3-8 COMPARATIVE MOVEMENT COST BY MODE

SOURCE : CHALNA

Sheet 1 of 2

(Rate in Taka per Ton)

POP Destination	Railway		Road		River	
	Mileage	Rate	Mileage	Rate	Mileage	Rate
A1 Demra	NA		NA		190.00	121.60
A4 Kaliganj	NA		NA		209.00	133.76
A7 Sirajdikhan	NA		NA		189.00	120.96
A8 Mirkadim	NA		NA		177.00	113.28
B5 Kuliarchar	NA		NA		245.00	156.80
B6 Bhairab	NA		NA		229.00	146.56
E2 Palong	NA		NA		149.00	95.36
E3 Gopalganj	NA		NA		77.00	64.00
E4 Tepakhola	NA		NA		194.00	124.16
E5 Madaripur	NA		NA		138.00	88.32
F3 Cox's Bazar	NA		NA		303.00	193.92
F4 Sandwip	NA		NA		199.00	127.36
F5 Chittagong	NA		NA		230.00	147.20
H4 Hatiya	NA		NA		157.00	100.48
I3 Daudkandi	NA		NA		179.00	114.56
I4 Chandpur	NA		NA		147.00	94.08
N3 Baghabari	NA		NA		248.00	158.72
P4T Shiromoni	NA		NA		39.00	64.00
P5 Roosevelt Jetty	NA		NA		30.00	64.00
P6 Rajapur	NA		NA		32.00	64.00
Q1 Bhola	NA		NA		110.00	70.40
Q2 Kawkhali	NA		NA		58.00	64.00
Q3 Tushkhali	NA		NA		35.00	64.00
Q4 Barisal	NA		NA		85.00	64.00

TABLE 3-8 COMPARATIVE MOVEMENT COST BY MODE

SOURCE : CHALNA - (Continued)

Sheet 2 of 2

(Rate in Taka per Ton)

PDP Destination	Railway		Road		River	
	Mileage	Rate	Mileage	Rate	Mileage	Rate
R1 Patuakhali	NA		NA		133.00	85.12
R2 Barguna	NA		NA		109.00	69.76
S4 Nersil	NA		NA		67.00	64.00

NA : Not Applicable

NF : Not Feasible

Source : (1) For River = Bangladesh Inland Water Transport Authority (BIWTA) & Bangladesh Inland Water Transport Corporation (BIWTC).

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TABLE 3-9 COMPARATIVE MOVEMENT COST BY MODE

SOURCE : GHORASAL

(Rate in Taka per Ton)

PDP Destination	Railway		Road		River	
	Mileage	Rate	Mileage	Rate	Mileage	Rate
A1 Narayanganj/Demra	39.75	113.59	NA		23.00	55.00
A3 Joydebpur	22.50	105.82	NA		NA	
A4 Kaliganj	NA		NA		5.00	3.20[o]
A5 Narsingdi	5.75	105.82	12.00	18.00	71.00	70.80
A7 Sirajdikhan	NA		NA		52.00	64.00
A8 Mirkadim	NA		NA		40.00	55.00
B5 Kuliarchar	NF		NA		108.00	96.54
B6 Bhairab	NF		NA		92.00	93.26
C2 Mymensingh	81.00[t]	127.93	NA		NA	
C3 Jamalpur	111.00[t]	142.68	NA		NA	
C4 Melandah	119.00[t]	142.90	NA		NA	
C6 Gaffargaon	55.00[t]	119.09	NA		NA	
E2 Palong	NA		NA		148.00	94.72
E4 Tepakhola	NF		NA		113.00	72.32
E[illegible] Madaripur	NF		NA		137.00	117.10
F1 Dohazari	198.50	184.49	NA		NF	
F4 Sandwip	NF		NA		195.00	124.80
F5 Chittagong	NF		NA		212.00	135.68
H1 Feni	114.00	151.14	NA		NA	
H2 Chaumuhani	111.00	151.14	NA		NA	
H4 Hatiya	NA		NA		153.00	97.92
I1 Comilla	76.25	139.29	NA		NA	
I2 Brahmanbaria	34.75	129.39	NA		NA	
I3 Daudkandi	NA		NA		55.00	68.51
I4 Chandpur	120.75	155.15	NA		66.00	60.50
I5 Laksam	89.00	141.05	NA		NA	

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TABLE 3-9 COMPARATIVE MOVEMENT COST BY MODE

SOURCE : GHORASAL - (Continued)

Sheet 2 of 3

(Rate in Taka per Ton)

PDP Destination	Railway Mileage	Railway Rate	Road Mileage	Road Rate	River Mileage	River Rate
K1 Rajshahi	269.00[B]	252.52	NA		NA	
K2 Amnura	292.50[B]	259.88	NA		NA	
K3 Rohanpur	308.00[B]	266.81	NA		NA	
K4 Natore	232.75[B]	238.91	NA		NA	
K5 Atrai	218.00[B]	232.66	NA		NA	
L1 Rangpur	209.50	184.15	NA		NA	
L3 Saidpur	242.00	198.33	NA		NA	
L4 Domar	264.75[P]	216.78	NA		NA	
L6 Gaibandha	165.75	205.36	NA		NA	
L7 Mahendranagar	205.75	183.59	NA		NA	
M1 Santahar	206.50	201.02	NA		NA	
M2 Joypurhat	228.50[B]	237.20	NA		NA	
M3 Bogra	180.50	174.55	NA		NA	
N1 Muladuli	261.25[B]	255.76	NA		NA	
N3 Baghabari	NA		NA		167.00	173.88
N4 Sirajganj	304.25[B]	264.76	NA		NF	
N5 Ullapara	285.50[B]	258.52	NA		NA	
O1 Dinajpur	251.50	200.48	NA		NA	
O2 Shibganj	287.75	214.55	NA		NA	
O3 Panchagar	314.75	222.29	NA		NA	
O4 Charkai	251.00[P]	200.48	NA		NA	
O5T Parbatipur	232.75	193.80	NA		NA	
Q1 Bhola	NA		NA		159.00	122.28
Q2 Kawkhali	NA		NA		155.00	99.20
Q4 Barisal	NA		NA		128.00	99.00

TABLE 3-9 COMPARATIVE MOVEMENT COST BY MODE

SOURCE : GHORASAL - (Continued)

Sheet 3 of 3

(Rate in Taka per Ton)

POP Destination	Railway		Road		River	
	Mileage	Rate	Mileage	Rate	Mileage	Rate
R1 .Patuakhali	NA		NA		176.00	131.92

NA : Not Applicable t : Via Tongi s : Via Santahar

NF : Not Feasible c : By country boat p : Via Parbatipur

Source : (1) For Railway = Bangladesh Railway (BR).

(2) For Road = Bangladesh Agricultural Development Corporation (BADC) & Bangladesh Transport Survey (BTS).

(3) For River = Bangladesh Inland Water Transport Authority (BIWTA) & Bangladesh Inland Water Transport Corporation (BIWTC).

TABLE 3.9A : RAILWAY CHARGES FOR MOVEMENT OF FERTILIZER

ORIGIN: GHORASAL

(Taka Per Ton)

PDP Destination	Mileage	Freight + Terminal Charge	Tran-shipment Charge	Ferry Charge	Ghat Charge	Pontage Charge	Siding Charge at		Addit'l. Haulage Charge	Transhipment Siding Charge (Santahar)	Total Charge
							Origin	Destination			
1	2	3	4	5	6	7	8	9	10	11	12
A1 Narayanganj/ Demra	39.75	109.56	-	-	-	-	2.27	1.76	-	-	113.59
A3 Joydebpur *	22.50	102.42	-	-	-	-	2.27	1.13	-	-	105.82
A5 Narsingdi *	5.75	102.42	-	-	-	-	2.27	1.13	-	-	105.82
C2 Mymensingh	81.00^{t}	124.53	-	-	-	-	2.27	1.13	-	-	127.93
C3 Jamalpur	111.00^{t}	138.14	-	-	-	-	2.27	2.27	-	-	142.68
C4 Melandah	119.00^{t}	139.50	-	-	-	-	2.27	1.13	-	-	142.90
C5 Gaffargaon	55.00^{t}	115.69	-	-	-	-	2.27	1.13	-	-	119.09
F1 Dohazari *	198.50	171.49	-	-	-	9.60	2.27	1.13	-	-	184.49
H1 Feni *	114.00	138.14	-	-	-	9.60	2.27	1.13	-	-	151.14
H2 Chaumuhani	111.00	138.14	-	-	-	9.60	2.27	1.13	-	-	151.14
I1 Comilla	76.25	122.15	-	-	-	9.60	2.27	2.27	-	-	136.29
I2 Brahmanbaria	34.75	107.18	-	-	-	9.60	2.27	10.34	-	-	129.39
I4 Chandpur	120.75	139.50	-	-	-	9.60	2.27	3.78	-	-	155.15
I5 Laksam	89.00	126.91	-	-	-	9.60	2.27	2.27	-	-	141.05

TABLE 3-9A : RAILWAY CHARGES FOR MOVEMENT OF FERTILIZER

ORIGIN: GHORASAL - (Continued)

(Taka Per Ton)

PDP Destination	Mileage	Freight + Terminal Charge	Tran-shipment Charge	Ferry Charge	Ghat Charge	Pontage Charge	Siding Charge at		Addit'l. Haulage Charge	Tranship-ment Siding Charge (Santahar)	Total Charge
							Origin	Desti-nation			
1	2	3	4	5	6	7	8	9	10	11	12
K1 Rajshahi	269.00[B]	197.69	12.79	1.36	3.82	-	2.27	2.27	-	32.32	252.52
K2 Amura	292.50[B]	206.19	12.79	1.36	3.82	-	2.27	1.13	-	32.32	259.88
K3 Rohanpur	308.00[B]	211.98	12.79	1.36	3.82	-	2.27	2.27	-	32.32	266.81
K4 Natore	232.75[B]	184.08	12.79	1.36	3.82	-	2.27	2.27	-	32.32	238.91
K5 Atrai	218.00[B]	178.97	12.79	1.36	3.82	-	2.27	1.13	-	32.32	232.66
L1 Rangpur	209.50	175.57	-	1.36	3.82	-	2.27	1.13	-	-	184.15
L3 Saidpur	242.00	188.16	-	1.36	3.82	-	2.27	2.72	-	-	198.33
L4 Domar	264.75[D]	195.64	12.79	1.36	3.82	-	2.27	0.90	-	-	216.78
L6 Gaibandha	165.75	195.64	-	1.36	3.82	-	2.27	2.27	-	-	205.35
L7 Mahendranagar	205.75	173.87	-	1.36	3.82	-	2.27	2.27	-	-	183.59
M1 Santahar	206.50	175.57	-	1.36	3.82	-	2.27	18.00	-	-	201.02
M2 Joypurhat	228.50[B]	182.37	12.79	1.36	3.82	-	2.27	2.27	-	32.32	237.20
M3 Bogra	180.50	163.32	-	1.36	3.82	-	2.27	3.78	-	-	174.55
N1 Nuladuli	261.25[B]	195.64	12.79	1.36	3.82	-	2.27	7.56	-	32.32	255.76
N4 Sirajganj	304.25[B]	209.93	12.79	1.36	3.82	-	2.27	2.27	-	32.32	264.76
N5 Ullapara	289.25[B]	204.83	12.79	1.36	3.82	-	2.27	1.13	-	32.32	258.52

TABLE 3-9A : RAILWAY CHARGES FOR MOVEMENT OF FERTILIZER

ORIGIN: GHORASAL - (Continued)

(Taka Per Ton)

PDP Destination	Mileage	Freight + Terminal Charge	Tran-shipment Charge	Ferry Charge	Ghat Charge	Pontage Charge	Siding Charge at		Addit'l. Haulage Charge	Tranship-ment Siding Charge (Santahar)	Total Charge
							Origin	Desti-nation			
1	2	3	4	5	6	7	8	9	10	11	12
01 Dinajpur	251.50	191.90	-	1.36	3.82	-	2.27	1.13	-	-	200.48
02 Shibganj	287.75	204.83	-	1.36	3.82	-	2.27	2.27	-	-	214.55
03 Panchagar	314.75	212.32	-	1.36	3.82	-	2.27	2.52	-	-	222.29
04 Charkai	251.00	191.90	-	1.36	3.82	-	2.27	1.13	-	-	200.48
05 Parbatipur	232.75	184.08	-	1.36	3.82	-	2.27	2.27	-	-	193.80

* Railfacilities can't be used

t via Tongi

s via Santahar

p via Parbatipur

Source: Bangladesh Railway (BR).

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TABLE 3-10 COMPERATIVE MOVEMENT COST BY MODE

SOURCE : FENCHUGANJ

Sheet 1 of 1

(Rate in Taka per Ton)

PDP Destination	Railway		Road		River	
	Mileage	Rate	Mileage	Rate	Mileage	Rate
H1 Feni	164.00	162.20	NA		NA	
H2 Chaumuhani	161.00	162.20	NA		NA	
I1 Comilla	126.25	149.39	NA		NA	
I4 Chandpur	170.75	166.89	NA		NA	
I5 Laksam	139.00	153.43	NA		NA	
J1 Laskarpur	56.75	123.87	NA		NA	
J2 Kulaura	15.25	108.22	NA		NA	
J6T Chhatak	35.50	112.98	NA		NA	
J7 Sylhet	15.00	109.35	NA		NA	
J8 Srimangal	40.25	114.22	NA		NA	

NA : Not Applicable

NF : Not Feasible

Source : For Railway = Bangladesh Railway (BR)

TABLE 3-10A : RAILWAY CHARGES FOR MOVEMENT OF FERTILIZER

Sheet 1 of 1

ORIGIN: FENCHUGANJ

(Taka Per Ton)

PDP Destination	Mileage	Freight + Terminal Charge	Tran-shipment Charge	Ferry Charge	Ghat Charge	Pontage Charge	Siding Charge at		Addit'l. Haulage Charge	Tranship-ment Siding Charge (Santahar)	Total Charge
							Origin	Desti-nation			
1	2	3	4	5	6	7	8	9	10	11	12
H1 Feni*	164.00	157.54	-	-	-	-	0.96	1.13	2.57	-	162.20
H2 Chaumuhani	161.00	157.54	-	-	-	-	0.96	1.13	2.57	-	162.20
I1 Comilla	126.25	143.59	-	-	-	-	0.96	2.27	2.57	-	149.39
I4 Chandpur	170.75	159.58	-	-	-	-	0.96	3.78	2.57	-	166.89
I5 Laksam	139.00	147.67	-	-	-	-	0.96	2.27	2.57	-	153.47
J1 Laskarpur	56.75	118.07	-	-	-	-	0.96	2.27	2.57	-	123.87
J2 Kulaura	15.25	102.42	-	-	-	-	0.96	2.27	2.57	-	108.22
J6T Chhatak	35.50	107.18	-	-	-	-	0.96	2.27	2.57	-	112.98
J7 Sylhet	15.00	102.42	-	-	-	-	0.96	3.40	2.57	-	109.35
J8 Srimangal	40.25	109.56	-	-	-	-	0.96	1.13	2.57	-	114.22

* Railfacilities can't be used

Source : Bangladesh Railway (BR).

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TABLE 3-11 COMPARATIVE MOVEMENT COST BY MODE

SOURCE : ASHUGANJ

Sheet 1 of 3
(Rate in Taka per Ton)

PDP Destination	Railway		Road		River	
	Mileage	Rate	Mileage	Rate	Mileage	Rate
A1 Narayanganj/Demra	66.00	133.40	NA		70.00	64.00
A3 Joydebpur	48.75	126.30	NA		NA	
A5 Narsingdi	20.50	115.42	NA		22.00	64.00
A7 Sirajdikhan	NA		NA		69.00	64.00
A8 Mirkadim	NA		NA		57.00	64.00
B1 Kishoreganj	32.00	120.18	NA		NA	
B2 Netrakona	77.50	136.29	NA		NA	
B3 Jaria	80.75	135.15	NA		NA	
B4 Serarchar	15.50	115.42	NA		NA	
B5 Kuliarchar	10.50	115.42	NA		17.00	64.00
B6 Bhairab	2.00	115.42	NA		1.00	64.00
C1 Shambhuganj	70.00	133.91	NA		NA	
C2 Mymensingh	76.75	142.01	NA		NA	
C3 Jamalpur	106.75	156.76	NA		NA	
C4 Melandah	114.75	158.00	NA		NA	
C6 Gaffargaon	81.25 t	137.53	NA		NA	
E2 Palong	NA		NA		143.00	91.52
E3 Gopalganj	NA		NA		216.00	138.24
E4 Tepekhola	NA		NA		130.00	83.20
E5 Madaripur	NA		NA		154.00	98.56
F1 Dohazari	172.25	165.36	NF		NA	
F4 Sandwip	NA		NA		215.00	137.60
F5 Chittagong	145.25	156.06	NF		231.00	147.84
H1 Feni	87.75	130.31	NF		NA	
H2 Chaumuhani	84.00	127.93	NF		NA	
H4 Hatiya	NA		NA		173.00	110.72

TABLE 3-11 COMPARATIVE MOVEMENT COST BY MODE

SOURCE : ASHUGANJ - (Continued)

Sheet 2 of 3
(Rate in Taka per Ton)

PDP	Destination	Railway		Road		River	
		Mileage	Rate	Mileage	Rate	Mileage	Rate
I1	Comilla	50.00	117.84	NA		NA	
I2	Brahmanbaria	8.50	115.03	14.00	21.00	NA	
I3	Daudkandi	NA		NF		77.00	64.00
I4	Chandpur	94.50	135.35	NA		83.00	64.00
I5	Laksam	62.75	124.31	NA		NA	
J3	Azmiriganj	NA		NA		68.00	43.52
J5	Sunamganj	NF		NA		130.00	83.20
J6T	Chhatak	NF		NA		157.00	100.00
K1	Rajshahi	264.75[S]	253.95	NA		NA	
K2	Amnura	288.25[S]	268.12	NA		NA	
K3	Rohanpur	303.75[S]	274.36	NA		NA	
K4	Natore	228.50[S]	246.80	NA		NA	
K5	Atrai	213.75[S]	240.22	NA		NA	
L1	Rangpur	205.25	192.05	NA		NA	
L3	Saidpur	237.75	205.89	NA		NA	
L4	Domar	260.50[P]	225.02	NA		NA	
L6	Gaibandha	161.50	176.86	NA		NA	
L7	Mahendranagar	201.50	193.19	NA		NA	
M1	Santahar	202.25	208.92	NA		NA	
M2	Joypurhat	224.25[S]	245.44	NA		NA	
M3	Bogra	176.25	184.15	NA		NA	
N1	Muladuli	257.00[S]	264.00	NA		NA	
N3	Gaghabari	NA		NA		184.00	117.76
N4	Sirajganj	300.00[S]	272.32	NA		NF	
N5	Ullapara	285.25[S]	266.08	NA		NA	

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TABLE 3-11 COMPARATIVE MOVEMENT COST BY MODE

SOURCE : ASHUGANJ - (Continued)

Sheet 3 of 3
(Rate in Taka per Ton)

POP Destination		Railway		Road		River	
		Mileage	Rate	Mileage	Rate	Mileage	Rate
O1	Dinajpur	247.25	207.70	NA		NA	
O2	Shibganj	283.50	222.11	NA		NA	
O3	Panchagar	310.50	231.55	NA		NA	
O4	Charkai	246.75[p]	220.49	NA		NA	
OST	Parbatipur	228.50	201.69	NA		NA	
P2	Bagerhat	NA		NA		223.00	142.72
P4T	Shiromoni	NF		NF		268.00	171.52
P5	Roosevelt Jetty	NF		NF		259.00	165.76
P6	Rajapur	NA		NA		261.00	167.04
Q1	Bhola	NA		NA		176.00	112.64
Q2	Kawkhali	NA		NA		172.00	110.08
Q3	Tushkhali	NA		NA		195.00	124.80
Q4	Barisal	NA		NA		145.00	92.80
R1	Patuakhali	NA		NA		193.00	123.52
R2	Barguna	NA		NA		205.00	131.20
S4	Narail	NF		NA		296.00	189.44

NA : Not Applicable
NF : Not Feasible

p : Via Parbatipur
s : Via Santahar
t : Via Tongi

Source : (1) For Railway = Bangladesh Railway (BR).

(2) For Road = Bangladesh Agricultural Development Coporation (BADC) & Bangladesh Transport Survey (BTS).

(3) For River = Bangladesh Inland Water Transport Authority (BIWTA) & Bangladesh Inland Water Transport Corporation (BIWTC).

TABLE 3-11A : RAILWAY CHARGES FOR MOVEMENT OF FERTILIZER

ORIGIN: ASHUGANJ

(Taka Per Ton)

FDP Destination	Mileage	Freight + Terminal Charge	Tran-shipment Charge	Ferry Charge	Ghat Charge	Pontage Charge	Siding Charge at		Addit'l. Haulage Charge	Tranship-ment Siding Charge (Santahar)	Total Charge
							Origin	Desti-nation			
1	2	3	4	5	6	7	8	9	10	11	12
A1 Narayanganj/ Demra	66.00	119.77	-	-	-	9.60	2.27	1.76	-	-	133.40
A3 Joydebpur*	48.75	113.30	-	-	-	9.60	2.27	1.13	-	-	126.30
A5 Narsingdi*	20.50	102.42	-	-	-	9.60	2.27	1.13	-	-	115.42
B1 Kishoreganj	32.00	107.18	-	-	-	9.60	2.27	1.13	-	-	120.18
B2 Netrakona	77.50	122.15	-	-	-	9.60	2.27	2.27	-	-	136.29
B3 Jaria	80.75	122.15	-	-	-	9.60	2.27	1.13	-	-	135.15
B4 Sararchar	15.50	102.42	-	-	-	9.60	2.27	1.13	-	-	115.42
B5 Kuliarchar*	10.50	102.42	-	-	-	9.60	2.27	1.13	-	-	115.42
B6 Bhairab	2.00	102.42	-	-	-	9.60	2.27	1.13	-	-	115.42
C1 Shambhuganj	70.00	119.77	-	-	-	9.60	2.27	2.27	-	-	133.91
C2 Mymensingh	76.75	122.15	-	-	-	16.46	2.27	1.13	-	-	142.01
C3 Jamalpur	106.75	135.76	-	-	-	16.46	2.27	2.27	-	-	156.76
C4 Melandah	114.75	138.14	-	-	-	16.46	2.27	1.13	-	-	158.00
C6 Gaffargaon	81.25t	124.53	-	-	-	9.60	2.27	1.13	-	-	137.53
F4 Dohazari *	172.25	161.96	-	-	-	-	2.27	1.13	-	-	165.38
F5 Chittagong	143.25	150.05	-	-	-	-	1.13	4.88	-	-	156.05
H1 Feni *	87.75	126.91	-	-	-	-	2.27	1.13	-	-	130.31
H2 Chaumuhani	84.00	124.53	-	-	-	-	2.27	1.13	-	-	127.93

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TABLE 3-11A : RAILWAY CHARGES FOR MOVEMENT OF FERTILIZER

ORIGIN: ASHUGANJ - (Continued)

(Taka Per Ton)

PDP Destination		Mileage	Freight + Terminal Charge	Tran-shipment Charge	Ferry Charge	Ghat Charge	Pontage Charge	Siding Charge at Origin	Siding Charge at Desti-nation	Addit'l. Haulage Charge	Tranship-ment Siding Charge (Santahar)	Total Charge
1		2	3	4	5	6	7	8	9	10	11	12
I1	Comilla	50.00	113.30	-	-	-	-	2.27	2.27	-	-	117.84
I2	Brahmanbaria	8.50	102.42	-	-	-	-	2.27	10.34	-	-	115.03
I4	Chandpur *	94.50	129.30	-	-	-	-	2.27	3.78	-	-	135.35
I5	Laksam	62.75	119.77	-	-	-	-	2.27	2.27	-	-	124.31
K1	Rajshahi	246.75[S]	189.52	12.79	1.36	3.82	9.60	2.27	2.27	-	32.32	253.95
K2	Amnura	288.25[S]	204.83	12.79	1.36	3.82	9.60	2.27	1.13	-	32.32	268.12
K3	Rohanpur	303.75[S]	209.93	12.79	1.36	3.82	9.60	2.27	2.27	-	32.32	274.36
K4	Natore	228.50[S]	182.37	12.79	1.36	3.82	9.60	2.27	2.27	-	32.32	246.80
K5	Atrai	213.75[S]	176.93	12.79	1.36	3.82	9.50	2.27	1.13	-	32.32	240.22
L1	Rangpur	205.25	173.87	-	1.36	3.82	9.60	2.27	1.13	-	-	192.05
L3	Saidpur	237.75	186.12	-	1.36	3.82	9.60	2.27	2.72	-	-	205.89
L4	Domar	260.50[D]	194.28	12.79	1.36	3.82	9.60	2.27	0.90	-	-	225.02
L6	Gaibandha	161.50	157.54	-	1.36	3.82	9.60	2.27	2.27	-	-	176.86
L7	Mahendranagar	201.50	173.87	-	1.36	3.82	9.60	2.27	2.27	-	-	193.19
M1	Santahar	202.25	173.87	-	1.36	3.82	9.60	2.27	16.00	-	-	208.92
M2	Joypurhat	224.25[S]	181.01	12.79	1.36	3.82	9.60	2.27	2.27	-	32.32	245.44
M3	Bogra	176.25	163.32	-	1.36	3.82	9.60	2.27	3.78	-	-	184.15

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TABLE 3-11A : RAILWAY CHARGES FOR MOVEMENT OF FERTILIZER

ORIGIN: ASHUGANJ - (Continued)

(Taka Per Ton)

PDP Destination	Mileage	Freight + Terminal Charge	Tran-shipment Charge	Ferry Charge	Ghat Charge	Pontage Charge	Siding Charge at		Addit'l. Haulage Charge	Tranship-ment Siding Charge (Santahar)	Total Charge
							Origin	Desti-nation			
1	2	3	4	5	6	7	8	9	10	11	12
N1 Muladuli	257.00[s]	194.28	12.79	1.36	3.82	9.60	2.27	7.56	-	32.32	264.00
N4 Sirajganj	300.00[s]	207.89	12.79	1.36	3.82	9.60	2.27	2.27	-	32.32	272.32
N5 Ullapara	285.25[s]	202.79	12.79	1.36	3.82	9.60	2.27	1.13	-	32.32	266.08
01 Dinajpur	247.25	189.52	-	1.36	3.82	9.60	2.27	1.13	-	-	207.70
02 Shibganj	283.50	202.79	-	1.36	3.82	9.60	2.27	2.27	-	-	222.11
03 Panchagar	310.50	211.98	-	1.36	3.82	9.60	2.27	2.52	-	-	231.55
04 Charkai	246.75[p]	189.52	12.79	1.36	3.82	9.60	2.27	1.13	-	-	220.49
05T Parbatipur	228.50	182.37	-	1.36	3.82	9.60	2.27	2.27	-	-	201.69

* Railfacilities can't be used

s via Santahar

t via Tongi

p via Parbatipur

Source : Bangladesh Railway (BR).

TABLE 3-12

COMPARATIVE MOVEMENT COST BY MODE

SOURCE : SHIROMONI

Sheet 1 of 3

(Rate in Taka per Ton)

POP	Destination	Railway		Road		River	
		Mileage	Rate	Mileage	Rate	Mileage	Rate
A1	Demra	NF		NF		217.00	138.88
A4	Kaliganj	NA		NA		237.00	151.68
A5	Narsingdi	NF		NF		245.00	156.80
A7	Sirajdikhan	NA		NA		226.00	144.64
A8	Mirkadim	NA		NA		214.00	136.96
B6	Bhairab	NF		NA		266.00	170.24
E1	Rajbari	140.75	151.07	NF		NF	
E4	Tepakhola	160.00	158.89	108.50	182.96	231.00	147.84
E5	Madaripur	NA		NA		175.00	112.00
F4	Sandwip	NA		NA		236.00	151.04
F5	Chittagong	NF		NF		267.00	170.88
H4	Hatiya	NA		NA		194.00	124.16
I4	Chandpur	NF		NF		184.00	117.76
K1	Rajshahi	155.75	174.79	165.95	256.34	NA	
K2	Amnura	179.25	183.66	NF		NA	
K3	Rohanpur	194.75	191.12	NF		NA	
K4	Natore	140.75	169.35	137.65	232.12	NA	
K5	Atrai	155.50	173.65	NF		NA	
L1	Rangpur	251.25[P]	257.55	289.05	391.93	NA	
L3	Saidpur	237.25	206.43	313.40	405.23	NA	
L4	Domar	260.00	215.96	NF		NA	
L6	Gaibandha	231.75[S]	250.87	NF		NA	
L7	Mahendranagar	269.50[P]	232.61	NF		NA	

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TABLE 3-12 COMPARATIVE MOVEMENT COST BY MODE

SOURCE : SHIROMONI - (Continued)

Sheet 2 of 3

(Rate in Taka per Ton)

PDP Destination	Railway		Road		River	
	Mileage	Rate	Mileage	Rate	Mileage	Rate
M1 Santahar	167.00	193.31	26.40	324.13	NA	
M2 Joypurhat	189.00	189.08	36.80	362.87	NA	
M3 Bogra	193.00[S]	237.74	221.25	314.45	NA	
N1 Muladuli	126.75	170.56	114.30	157.62	NA	
N2 Pabna	NA		123.15	169.82	NA	
N3 Baghabari	NA		164.85	227.34	NA	
N4 Sirajganj	169.75	181.26	NF		NF	
N5 Ullapara	155.00	173.65	178.85	246.65	NA	
O1 Dinajpur	246.75[P]	222.85	338.85	440.35	NA	
O2 Shibganj	283.00[P]	237.26	NF		NA	
O3 Panchagar	310.00[P]	246.70	NF		NA	
O4 Charkai	209.75	196.11	NF		NA	
O5T Parbatipur	228.00	204.05	NF		NA	
P1 Satkhira	NA		40.00	88.80	NF	
Q1 Bhola	NA		NA		149.00	95.36
Q2 Kawkhali	NA		NA		95.00	64.00
Q3 Tushkhali	NA		NA		74.00	64.00
Q4 Barisal	NA		NA		122.00	78.08
R1 Patuakhali	NA		NA		170.00	108.80
R2 Barguna	NA		NA		148.00	94.72
S1 Jessore	27.25	108.20	30.50	77.16	NA	
S2 Kaliganj	45.25	115.34	47.80	91.69	NA	
S3 Magura	NA		77.50	115.90	NA	
S4 Narail	NA		52.35	89.52	106.00	67.84
S5 Jhenaidah	NF		59.10	101.06	NA	

TABLE 3-12 COMPARATIVE MOVEMENT COST BY MODE

SOURCE : SHIROMONI - (Continued)

Sheet 3 of 3
(Rate in Taka per Ton)

PDP Destination	Railway		Road		River	
	Mileage	Rate	Mileage	Rate	Mileage	Rate
T1 Chuadanga	78.25	125.55	81.50	101.38	NA	
T2 Kushtia	105.75	137.12	87.40	120.75	NA	

NA : Not Applicable

NF : Not Feasible

p : Via Parbatipur

s : Via Santahar

Source : (1) For Railway = Bangladesh Railway (BR).

(2) For Road = Bangladesh Agricultural Development Corporation (BADC) & Bangladesh Transport Survey (BTS).

(3) For River = Bangladesh Inland Water Transport Authority (BIWTA) & Bangladesh Inland Water Transport Corporation (BIWTC).

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TABLE 3-12A : RAILWAY CHARGES FOR MOVEMENT OF FERTILIZER

ORIGIN: SHIROMONI

(Taka Per Ton)

PDP Destination	Mileage	Freight + Terminal Charge	Tran-shipment Charge	Ferry Charge	Ghat Charge	Pontage Charge	Siding Charge at Origin	Siding Charge at Desti-nation	Addit'l. Haulage Charge	Tranship-ment Siding Charge (Santahar)	Total Charge
1	2	3	4	5	6	7	8	9	10	11	12
E1 Rajbari *	140.75	147.67	-	-	-	-	2.27	1.13	-	-	151.07
E4 Tepakhola ✡	160.00	155.49	-	-	-	-	2.27	1.13	-	-	158.89
K1 Rajshahi	155.75	153.11	-	-	-	17.14	2.27	2.27	-	-	174.79
K2 Amnura	179.25	163.32	-	-	-	17.14	2.27	1.13	-	-	183.86
K3 Rohanpur	194.75	169.44	-	-	-	17.14	2.27	2.27	-	-	191.12
K4 Natore	140.75	147.67	-	-	-	17.14	2.27	2.27	-	-	169.35
K5 Atrai	155.50	153.11	-	-	-	17.14	2.27	1.13	-	-	173.65
L1 Rangpur	251.25[S]	191.90	12.79	-	-	17.14	2.27	1.13	-	32.32	257.55
L3 Saidpur	237.25	186.12	-	-	-	17.14	2.27	0.90	-	-	206.43
L4 Domar	260.00	194.28	-	-	-	17.14	2.27	2.27	-	-	215.96
L6 Gaibandha	231.75[S]	184.08	12.79	-	-	17.14	2.27	2.27	-	32.32	250.87
L7 Mahendranagar	269.50[P]	197.69	12.79	-	-	17.14	2.27	2.72	-	-	232.61
M1 Santahar	167.00	159.58	-	-	-	17.14	2.27	14.32	-	-	193.31
M2 Joypurhat	189.00	167.40	-	-	-	17.14	2.27	2.27	-	-	189.08
M3 Bogra	193.00[S]	169.44	12.79	-	-	17.14	2.27	3.78	-	32.32	237.74
N1 Nuladuli	126.75	143.59	-	-	-	17.14	2.27	7.56	-	-	170.56
N4 Sirajganj	169.75	159.58	-	-	-	17.14	2.27	2.27	-	-	181.26

TABLE 3-12A : RAILWAY CHARGES FOR MOVEMENT OF FERTILIZER

ORIGIN: SHIROMONI - (Continued)

(Taka Per Ton)

PDP	Destination	Mileage	Freight + Terminal Charge	Tran-shipment Charge	Ferry Charge	Ghat Charge	Pontage Charge	Siding Charge at		Addit'l. Haulage Charge	Tranship-ment Siding Charge (Santahar)	Total Charge
								Origin	Desti-nation			
1		2	3	4	5	6	7	8	9	10	11	12
N5	Ullapara	155.00	153.11	-	-	-	17.14	2.27	1.13	-	-	173.65
Q1	Dinajpur	246.75[p]	189.52	12.79	-	-	17.14	2.27	1.13	-	-	222.85
Q2	Shibganj	283.00[p]	202.79	12.79	-	-	17.14	2.27	2.27	-	-	237.26
Q3	Panchagar	310.00[p]	211.98	12.79	-	-	17.14	2.27	2.52	-	-	246.70
Q4	Charkai	209.75	175.57	-	-	-	17.14	2.27	1.13	-	-	196.11
QST	Parbatipur	228.00	182.37	-	-	-	17.14	2.27	2.27	-	-	204.05
S1	Jessore	27.25	104.80	-	-	-	-	2.27	1.13	-	-	108.20
S2	Kaliganj	45.25	111.94	-	-	-	-	2.27	1.13	-	-	115.34
T1	Chuadanga	78.25	122.15	-	-	-	-	2.27	1.13	-	-	125.55
T2	Kushtia*	105.75	133.72	-	-	-	-	2.27	1.13	-	-	137.12

* Railfacilities can't be used.

s via Santahar

p via Parbatipur

Source : Bangladesh Railway (BR).

TABLE 3-13 MOVEMENT COST FROM TRANSIT POINT BY MODE

Sheet 1 of 1
(Rate in Taka per Ton)

Transit Point	PDP Location	Mode	Mileage	Rate
A1 Demra	A2 Saver	Road	17.60	26.40
	A3 Joydebpur	Road	25.35	38.03
	A4 Kaliganj	River	20.00	12.80
	A5 Narsingdi	Road	24.15	36.23
	A6 Manikganj	Road	43.30	64.95
	D2 Tangail	Road	61.25	73.78
	D3 Mirzapur	Road	44.80	66.00
C2 Mymansingh	D1 Madhupur	Road	29.60	44.40
C3 Jamalpur	C5 Sherpur	Road	9.70	14.55
E4 Tepakhola	E1 Rajbari	Road	20.00	30.00
J6T Chhatak	J4 Jamalganj	River	55.00	35.20
	J5 Sunamganj	River	27.00	17.28
N1 Muladuli	N2 Pabna	Road	16.35	24.53
	T2 Kushtia	Road	26.95	40.43
N3 Baghabari	N5 Ullapara	Road	14.40	21.60

Source : (1) For Road = Bangladesh Agricultural Development Corporation (BADC) & Bangladesh Transport Survey (BTS).

(2) For River= Bangladesh Inland Water Transport Authority (BIWTA) & Bangladesh Inland Water Transport Corporation (BIWTC).

TABLE 4-1

FERTILIZER MOVEMENT PROGRAM FROM ASHUGANJ FOR 237500 LONG TONS UREA DURING DRY SEASON

Sheet 1 of 2

UPSP Ref.	To PDP Location At	Main Mode of Movement			Transit Mode			Remarks
		Rail Tons	Truck Tons	Barge Tons	Rail Tons	Road Tons	Barge/Boat Tons	
I2	Brahmanbaria		13 008					
J3	Azmiriganj			7 268				
B8	Bhairab			7 325*				
B5	Kuliarchar			4 665				
B4	Sararchar	4 210						
B1	Kishoreganj	13 364						
B2	Netrakona	5 462						
B3	Jaria	2 959						
C1	Shambhuganj	7 354						
L6	Gaibandha	2 113						Part. Balance from Ghoraal.
L1	Rangpur	11 454						
05T	Parbatipur*	11 241						
	BG Transfer							
L4	(Domar)				5 300			
04	(Charkai)				5 941			
L3	Saidpur	7 762				7 762		Truck from RS to PDP.
01	Dinajpur	9 654				9 654		Ditto
02	Shibganj	11 511						
03	Panchagar	5 198						
I3	Daudkandi			8 249				
I4	Chandpur			7 645				
	Carried Forward	92 282	13 008	32 152	11 241	17 416	0	

RS: Railway Station.

* Country boat preferred.

TABLE 4-1

FERTILIZER MOVEMENT PROGRAM FROM ASHUGANJ
FOR 237500 LONG TONS UREA DURING DRY SEASON

Sheet 2 of 2

NFSP Ref.	To PDP Location At	Main Mode of Movement			Transit Mode			Remarks
		Rail Tons	Truck Tons	Barge Tons	Rail Tons	Road Tons	Barge/ Boat Tons	
	Brought Forward	92 282	13 008	32 152	11 241	17 416	0	
Q1	Bhola			15 613				
Q4	Barisal			5 007				Part. Rest 2 617 Tons from Chalna.
R1	Patuakhali			3 525				
E5	Madaripur			4 839		4 839		Truck to PDP.
E2	Palong			2 857				
E4	Tepakhola*			9 367		6 977		Truck to PDP.
	*Transit For							
E1	(Rajbari)					2 390		
N3	Baghabari*			14 188		2 212		1/3 Truck to Shahjadpur.
	*Transit For							
N5	(Ullapara)					7 552		
A8	Mirkadim			5 842				
A7	Sirajdikhan			3 363				
A1	Demra*			30 457				
	*Transit For							
A2	(Savar)					5 103		
A6	(Manikganj)					2 659		
A3	(Joydebpur)					4 411		
D2	(Mirzapur)					4 704		
D3	(Tangail)					7 624		
	Total 237 500 =	92 282	13 008	132 210	11 241	65 881	0	Total Transit =77 122 Tons
	Percentage	38.85%	5.48%	55.67%	14.56%	85.42%	0	=32.47%

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TABLE 4-2 FERTILIZER MOVEMENT PROGRAM FROM ASHUGANJ FOR 237500 LONG TONS UREA DURING WET SEASON

MFSP Ref.	To PDP Location At	Main Mode of Movement			Transit Mode			Remarks
		Rail	Truck	Barge	Rail	Road	Barge/ Boat	
		Tons	Tons	Tons	Tons	Tons	Tons	
I2	Brahmanbaria		8 712					
J3	Azmiriganj			4 867				
B6	Bhairab			4 905*				
B5	Kuliarchar			3 125				
B4	Sararchar	2 820						
B1	Kishoregan j	8 951						
B2	Netrakona	3 658						
B3	Jaria	1 981						
C1	Shambhuganj	4 926						
L6	Gaibandha	6 448						Part. Rest from Ghoraseal.
L1	Rangpur	7 671						
O5T	Parbatipur*	7 529						
	*BG Transfer							
L4	(Domar)				3 550			
O4	(Charkai)				3 979			
L3	Saidpur	5 198				5 198		Truck from RS. to PDP.
O1	Dinajpur	6 466				8 488		Truck from RS to PDP.
C2	Shibganj	7 708						
O3	Panchagar	3 482						
I3	Daudkandi			3 516				
I4	Chandpur			5 120				
I1	Comilla	10 316						
I5	Laksam	9 838						Includes 3473 Tons dry season deficit.
	Carried Forward	86 993	8 712	21 533	7 529	11 664	0	

RS: Railway Station.

*Country boat preferred.

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TABLE 4-2

FERTILIZER MOVEMENT PROGRAM FROM ASHUGANJ
FOR 237500 LONG TONS UREA DURING WET SEASON

MPSP Ref.	To POP Location At	Main Mode of Movement			Transit Mode			Remarks
		Rail	Truck	Barge	Rail	Road	Barge/ Boat	
		Tons	Tons	Tons	Tons	Tons	Tons	
	Brought Forward	86 993	8 712	21 533	7 529	11 664	0	
H2	Chaumuhani*	22 120						
	*Transit For							
H1	(Feni)					22 120		No Rail facilities. Includes 15164 tons shortage during dry season. Part from Fenchuganj.
F5	Chittagong*	25 177				13 682		Truck to POP.
	*Transit For							
F1	(Dohazari)					4 853		
F2	(Chakaria)					3 181		
F3	(Cox's Bazar)						3 461*	
Q1	Bhola			10 457				
Q4	Barisal			8 106				
R1	Patuakhali			5 710				
Q2	Kawkhali			3 774				
R2	Barguna			4 440				
Q3	Tushkhali			5 461				
E3	Gopalganj			654				
P2	Bagerhat			1 310				
P5	Roosevelt Jetty			1 538		1 538		Truck to POP.
P6	Rajapur			1 456				
S4	Narail			1 376				
P4T	Shiromoni*			31 683				
	*Transit For							
P1	(Satkhira)					5 050		
S1	(Jessore)					8 028		
	Carried Forward	134 290	8 712	94 498	7 529	70 116	3 461	

*Coaster preferred.

TABLE 4-2

FERTILIZER MOVEMENT PROGRAM FROM ASHUGANJ
FOR 237500 LONG TONS UREA DURING WET SEASON

Sheet 3 of 3

MFSP Ref.	To PDP Location At	Main Mode of Movement			Transit Mode			Remarks
		Rail	Truck	Barge	Rail	Road	Barge/ Boat	
		Tons	Tons	Tons	Tons	Tons	Tons	
	Brought Forward	134 290	8 712	94 498	7 529	70 116	3 461	
	*Transit For (Cont'd.)							
S2	(Kaliganj)					3 245		
S5	(Jhenaidah)					4 029		
S3	(Magura)					3 149		
T1	(Chuadanga)					6 182		
	Total 237 500 =	134 290	8 712	94 498	7 529	88 721	3 461	Total Transit = 99 711 Tons
	Percentage	56.54%	3.67%	39.79%	7.55%	88.98%	3.47%	= 41.98%

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TABLE 4-3

FERTILIZER MOVEMENT PROGRAM FROM GHORASAL FOR 175000 LONG TONS UREA DURING DRY SEASON

UFSP Ref.	To PDF Location At	Main Mode of Movement			Transit Mode			Remarks
		Rail Tons	Truck Tons	Barge Tons	Rail Tons	Road Tons	Barge/Boat Tons	
A5	Narsingdi		7 025					
A4	Kaliganj			3 941				
I1	Comilla	6 364						Part. Balance from Imports thru Chittagong
C6	Gaffargaon	7 250						
C2	Mymensingh*	16 569						
	*Transit For							
D1	(Madhupur)					7 100		
C3	Jamalpur*	11 684						
	*Transit For							
C5	(Sherpur)					6 447	6 447+	+Boat transfer
C4	Melandah	6 037						
L6	Gaibandha	10 090						Part. Balance from Ashuganj.
L7	Mahendranagar	13 026						
M3	Bogra	21 590						
M1	Santahar*	71 424						
	*BG Transfer							
M2	(Joypurhat)				8 504			
K5	(Atrai)				4 573			
K4	(Natore)				8 145			
K1	(Rajshahi)				9 900			
K2	(Amnura)				4 905			
K3	(Rohanpur)				4 330			
N1	(Muladuli+)				7 096			
	+Transit For							
N2	(Pabna)					4 638		
N4	(Sirajganj)				6 079			
	Total 175 000 =	164 034	7 025	3 941	53 532	18 185	6 447	Total Transit = 78 164 Tons
	Percentage	93.73%	4.01%	2.25%	68.49%	23.26%	8.25%	= 44.66%

TABLE 4-4

FERTILIZER MOVEMENT PROGRAM FROM GHORASAL FOR 175000 LONG TONS UREA DURING WET SEASON

Sheet 1 of 2

NFSP Ref.	To PDP Location At	Main Mode of Movement			Transit Mode			Remarks
		Rail Tons	Truck Tons	Barge Tons	Rail Tons	Road Tons	Barge/ Boat Tons	
A5	Narsingdi		4 705					
A4	Kaliganj			2 639				
A1	Demra*			20 398				
	*Transit For							
A2	(Savar)					3 417		
A6	(Manikganj)					1 777		
A3	(Joydebpur)					2 954		
D2	(Mirzapur)					3 151		
D3	(Tangail)					5 106		
A7	Sirajdikhan			2 252				
A8	Mirkadim			3 913				
E2	Palong			1 913				
E5	Madaripur			3 241		3 241		Truck from Ghat to PDP.
E4	Tepakhola*			6 273		4 673		Truck from Ghat to PDP.
	*Transit For							
E1	(Rajbari)					1 600		
N3	Baghabari*			9 502		3 167		1/3 Truck to Shahjadpur.
	*Transit For							
N5	(Ullapara)					5 058		
C6	Gaffargaon	4 855						
C2	Mymensingh*	11 096						
	*Transit For							
D1	(Madhupur)					4 755		
	Carried Forward	15 951	4 705	50 191	0	38 899	0	

TABLE 4-4

FERTILIZER MOVEMENT PROGRAM FROM GHORASAL
FOR 175000 LONG TONS UREA DURING WET SEASON

MFSP Ref.	To PDP Location At	Main Mode of Movement			Transit Mode			Remarks
		Rail	Truck	Barge	Rail	Road	Barge/ Boat	
		Tons	Tons	Tons	Tons	Tons	Tons	
	Brought Forward	15 951	4 705	50 131	0	38 899	0.	
C3	Jamalpur*	7 826						
	*Transit For							
C5	(Sherpur)					4 318	4 318+	Roads may be Flooded. +Boat Transfer.
C4	Melandah	4 043						
L6	Gaibandha	1 724						Part only. Balance from Ashuganj.
L7	Mahendranagar	8 724						
M3	Bogra	14 460						
M1	Santahar*	67 436						
	*B.G. Transfer							
M2	(Joypurhat)				5 696			
K5	(Atrai)				3. 062			
K4	(Natore)				5 455			
K1	(Rajshahi)				6 630			
K2	(Amnura)				3 285			
K3	(Rohanpur)				2 900			
N1	(Muladuli+)				24 354			
	+Transit For							
N2	+(Pabna)					3 107		
T2	+(Kushtia)					19 600		Includes 11 738 Tons shortage during dry season.
N4	(Sirajganj)				4 071			
	Total 175 000 =	120 164	4 705	50 131	55 453	65 924	4 318	Total Transit = 125 695 Tons
	Percentage	68.67%	2.69%	28.65%	44.12%	52.45%	3.44%	= 71.83%

TABLE 4-5

FERTILIZER MOVEMENT PROGRAM FROM FENCHUGANJ FOR 37500 LONG TONS UREA DURING DRY SEASON

MPOP Ref.	To PDP Location At	Main Mode of Movement			Transit Mode			Remarks
		Rail	Truck	Barge	Rail	Road	Barge/ Boat	
		Tons	Tons	Tons	Tons	Tons	Tons	
J7	Sylhet	4 686						
J6T	Chhatak*	5 363						
	*Transit For							
J5	(Sunamganj)						3 186	
J4	(Jamalganj)						2 177	
J2	Kulaura	2 470						
J8	Srimangal	3 845						
J1	Laskarpur	9 043						
H2	Chaumuhani*	12 093				10 900		Truck from RS to PDP.
	*Transit For							
H3	(Lakshmipur)					1 193		Part. Deficit 5 500 Tons.
	Total	37 500	0	0	0	12 093	5 363	Total Transit =17 456 Tons
	Percentage	100%	0	0	0	69.28%	30.72%	=46.55%

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TABLE 4-6 FERTILIZER MOVEMENT PROGRAM FROM FENCHUGANJ FOR 37500 LONG TONS UREA DURING WET SEASON

Sheet 1 of 1

MFSP Ref.	To PDP Location At	Main Mode of Movement			Transit Mode			Remarks
		Rail	Truck	Barge	Rail	Road	Barge/ Boat	
		Tons	Tons	Tons	Tons	Tons	Tons	
J7	Sylhet	3 139						
J6T	Chhatak*	3 592						
	*Transit For							
J5	(Sunamganj)						2 134	
J4	(Jamalganj)						1 458	
J2	Kulaura	1 655						
J3	Srimangal	2 575						
J1	Laskarpur	6 057						
H2	Chaumuhani*	20 482				7 300		Truck from RS to PDP.
	*Transit For							
H3	(Laksmipur)					9 982		Includes 5500 Tons Shortage During Dry Season.
H1	(Feni)					3 200		Part only. Rest from Ashuganj.
	Total	37 500	0	0	0	20 482	3 592	Total Transit = 24 074 Tons
	Percentage	100%	0	0	0	85.08%	14.92%	= 64.20%

RS: Railway Station

TABLE 4-7 FERTILIZER MOVEMENT PROGRAM FROM CHITTAGONG PORT FOR 60200 LONG TONS UREA DURING DRY SEASON

UNSP Ref.	To PDP Location At	Main Mode of Movement			Transit Mode			Remarks
		Rail	Truck	Barge	Rail	Road	Barge/ Boat	
		Tons	Tons	Tons	Tons	Tons	Tons	
F5	Chittagong		20 428					
F1	Dohazari		7 247					
F2	Chakaria		4 749					
F3	Cox's Bazar		5 169					
F4	Sandwip			3 065				
H4	Hatiya			4 470				
I5	Laksam	6 032						Part. Deficit 3473 Tons.
I1	Comilla	9 040						Part. Balance 6364 Tons from Ghorasal.
	Total 60 200 =	15 072	37 593	7 535	0	0	0	
	Percentage	25.04%	62.45%	12.51%	0	0	0	

Imports = 60 200 Tons

TABLE 4-8

FERTILIZER MOVEMENT PROGRAM FROM CHALNA PORT
FOR 79800 LONG TONS UREA DURING DRY SEASON

UFCP Ref.	To PDP Location At	Main Mode of Movement			Transit Mode			Remarks
		Rail	Truck	Barge	Rail	Road	Barge/ Boat	
		Tons	Tons	Tons	Tons	Tons	Tons	
S4	Narail			2 054				
P6	Rajapur			2 174				
P5	Roosevelt Jetty			2 297		2 297		Truck to PDP.
P4T	Shiromoni*			49 262				
	*Transit For							
P1	(Satkhira)					7 540		
S1	(Jessore)					11 987		
S2	(Kaliganj)					4 845		
S5	(Jhenaidah)					6 016		
S3	(Magura)					4 701		
T1	(Chuadanga)					12 218		
P2	(Bagerhat)					1 955		
Q3	Tushkhali			8 154				
Q2	Kawkhali			5 636				
E3	Gopalganj			976				
R2	Barguna			6 630				
Q4	Barisal			2 617				Part. Balance from Ashuganj.
	Total	0	0	79 800	0	51 559	0	Total Transit = 51 559 Tons
	Percentage	0	0	100%	0	100%	0	= 64.81%

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TABLE 4-9

FERTILIZER MOVEMENT PROGRAM FROM CHITTAGONG TSP PLANT FOR 60000 LONG TONS TSP DURING DRY SEASON

Sheet 1 of 1

NFSP Ref.	To PDP Location At	Main Mode of Movement			Transit Mode			Remarks
		Rail	Truck	Barge	Rail	Road	Barge/ Boat	
		Tons	Tons	Tons	Tons	Tons	Tons	
F5	Chittagong		12 568					
F1	Dohazari		4 471					
F2	Chakaria		2 884					
F3	Cox's Bazar		3 171					
H1	Feni		9 903					
J6T	Chhatak *	2 791						
	*Transit For							
J5	(Sunamganj)						1 658	
J4	(Jamalganj)						1 132	
J7	Sylhet	2 441						
J2	Kulaura	1 285						
J8	Srimangal	2 000						
J1	Laskarpur	4 695						
I2	Brahmanbaria	11 415				11 415		Truck from RS to PDP.
I1	Comilla	2 376						Part only. Balance 11144 Tons from Imports.
	Total 60 000 =	27 003	32 997	0	0	11 415	2 791	Total Transit =14 206 Tons
	Percentage	45.00%	55.00%	0	0	80.35%	19.65%	=23.60%

RS: Railway Station

TABLE 4-10

FERTILIZER MOVEMENT PROGRAM FROM CHITTAGONG TSP PLANT FOR 60000 LONG TONS TSP DURING WET SEASON

MPSP Ref.	To PDP Location At	Main Mode of Movement			Transit Mode			Remarks
		Rail	Truck	Barge	Rail	Road	Barge/ Boat	
		Tons	Tons	Tons	Tons	Tons	Tons	
F0	Chittagong		8 417					
F1	Dohazari		2 994					
F2	Chakaria		1 931					
F3	Cox's Bazar			2 124 *				
H1	Feni		5 632					
J6T	Chhatak*	1 869						
	*Transit For							
J5	(Sunamganj)						1 111	
J4	(Jamalganj)						758	
J7	Sylhet	1 634						
J2	Kulaura	860						
J8	Srimangal	1 340						
J1	Laskarpur	3 145						
I2	Brahmanbaria	7 645				7 645		Truck from RS To PDP.
I1	Comilla	7 820						Part only. Rest 1235 Tons from Chittagong Imports.
I5	Laksam	5 587						
H2	Chaumuhani*	8 002				4 960		Truck from RS To PDP.
	*Transit For							
H3	(Laksmipur)					3 042		Truck from RS To PDP.
	Total 60 000 =	37 902	19 974	2 124	0	15 647	1 869	Total Transit =17 516 Tons
	Percentage	63.17%	33.29%	3.54%	0	89.33%	10.67%	=29.19%

RS: Railway Station

*Coaster preferred

TABLE 4-11 **FERTILIZER** MOVEMENT PROGRAM FROM CHITTAGONG PORT
FOR 165627 LONG TONS TSP DURING DRY SEASON

Sheet 1 of 2

MFSP Ref.	To PDP Location At	Main Mode of Movement			Transit Mode			Remarks
		Rail	Truck	Barge	Rail	Road	Barge/ Boat	
		Tons	Tons	Tons	Tons	Tons	Tons	
I5	Laksam	8 343						
H2	Chaumuhani*	11 949				7 405		Truck from RS to PDP.
	*Transit For							
H3	(Lakshmipur)					4 543		Truck from RS to PDP.
I1	Comilla	11 144						Part only. Balance 2376 Tons from TSP Plant.
B4	Sarsrcher	2 800						
B1	Kishoreganj	9 208						
B2	Netrakona	3 635						
B3	Jaria	1 970						
C1	Shambhuganj	5 588						
C2	Mymensingh*	12 296						
	*Transit For							
D1	(Madhupur)					5 103		
C3	Jamalpur*	8 885						
	*Transit For							
C5	(Sherpur)					4 905	4 905+	+River Crossing by Boat.
C4	Melandah	4 588						
C6	Gaffargaon	3 510						
J3	Azmirigan j			4 180				
B6	Bhairab			5 507				
B5	Kulierchar			3 111				
A5	Narsingdi			5 699				
A4	Kaliganj			3 156				
	Carried Forward	85 921	0	21 653	0	21 956	4 905	

RS: Railway Station

TABLE 4-11 **FERTILIZER** MOVEMENT PROGRAM FROM CHITTAGONG PORT FOR 165627 LONG TONS TSP DURING DRY SEASON

Sheet 2 of 2

MFSP Ref.	To PDP Location At	Main Mode of Movement			Transit Mode			Remarks
		Rail	Truck	Barge	Rail	Road	Barge/ Boat	
		Tons	Tons	Tons	Tons	Tons	Tons	
	Brought Forward	85 921	0	21 653	0	21 958	4 905	
A1	Demra*			15 649				Part only. Balance 7733 Tons from Chalna Port.
	*Transit For							
A2	(Savar)					4 084		
A6	(Manikganj)					2 123		
A3	(Joydebpur)					3 525		
D2	(Mirzapur)					3 402		
D3	(Tangail)					5 483		
A7	Sirajdikhan			2 689				
A8	Mirkedim			4 674				
I3	Daudkandi			4 612		1 567		
N3	Baghabari*			10 043				1/3 Truck to Shahjadpur PDP.
	*Transit For							
N5	(Ullapara)					6 342		
E4	Tepakhola*			6 681		4 977		Truck from Ghat to PDP.
	*Transit For							
E1	(Rajbari)					1 704		
E2	Paleng			2 042				
I4	Chandpur			6 708				
H4	Hatiya			3 040		3 040		Truck from Ghat to PDP.
F4	Sandwip			1 915		1 915		Ditto
	Total 165 627 =	85 921	0	79 706	0	59 118	4 905	Total Transit =64 023 Tons
	Percentage	51.88%	0	48.12%	0	92.34%	7.66%	=38.65%

Imports= 165 627 Tons.

TABLE 4-12

FERTILIZER MOVEMENT PROGRAM FROM CHITTAGONG PORT FOR 100973 LONG TONS TSP DURING WET SEASON

Sheet 1 of 2

NFSP Ref.	To PDP Location At	Main Mode of Movement			Transit Mode			Remarks
		Rail	Truck	Barge	Rail	Road	Barge/ Boat	
		Tons	Tons	Tons	Tons	Tons	Tons	
I1	Comilla	1 235						Part only. Rest from TSP Plant.
B4	Sararchar	1 879						
B1	Kishoregan j	6 167						
B2	Netrakona	2 435						
B3	Jaria	1 320						
C1	Shambhugan j	3 742						
C2	Mymensingh*	8 234						
	*Transit For							
D1	(Madhupur)					3 417		
C3	Jamalpur*	5 950						
	*Transit For							
C5	(Sherpur)					3 285		
C4	Melandah	3 072						
C6	Gaffargaon	3 690						
J3	Azmirigan j			2 800				
B6	Bhairab			3 688				
B5	Kuliarchar			2 084				
A5	Narsingdi			3 816				
A4	Kaligan j			2 114				
-	Carried Forward	37 724	0	14 502	0	6 702	0	

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TABLE 4-12 FERTILIZER MOVEMENT PROGRAM FROM CHITTAGONG PORT FOR 100973 LONG TONS TSP DURING WET SEASON

MFSP Ref.	To PDP Location At	Main Mode of Movement			Transit Mode			Remarks
		Rail Tons	Truck Tons	Barge Tons	Rail Tons	Road Tons	Barge/ Boat Tons	
	Brought Forward	37 724	0	14 502	0	6 702	0	
A1	Demra*			15 663				
	*Transit For							
A2	(Saver)					2 736		
A6	(Manikganj)					1 422		
A3	(Joydebpur)					2 360		
D2	(Mirzapur)					2 278		
D3	(Tangail)					3 672		
A7	Sirajdikhan			1 801				
A8	Mirkadim			3 131				
I3	Daudkandi			3 088				
N3	Baghabari*			6 727		1 050		1/3 Truck to Shahjadpur PDP.
	*Transit For							
N5	(Ullapara)					3 578		
E4	Tepakhola*			4 474		3 333		Truck from Ghat to PDP.
	*Transit For							
E1	(Rajbari)					1 141		
E2	Palong			1 368				
I4	Chandpur			4 492				
Q1	Bhola			4 589				
E5	Madaripur			2 084		2 084		Truck from Ghat to PDP.
R1	Patuakhali			1 330				Part only. Balance 1231 Tons from Chalna.
	Total 100 973 =	37 724	0	63 249	0	30 356	0	Total Transit = 30 356 Tons
	Percentage	37.36%	0	62.64%	0	100%	0	= 30.06%

Imports = 100973 Tons

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TABLE 4-13

FERTILIZER MOVEMENT PROGRAM FROM CHALNA PORT
FOR 219551 LONG TONS TSP DURING DRY SEASON

NFSP Ref.	To PDP Location At	Main Mode of Movement			Transit Mode			Remarks
		Rail	Truck	Barge	Rail	Road	Barge/ Boat	
		Tons	Tons	Tons	Tons	Tons	Tons	
S4	Narail			1 644				
P3	Rajapur			1 261				
P5	Roosevelt Jetty			1 237		1 237		Truck to PDP.
P4T	Shiromoni*			180 610				
	*Transit For							
P1	(Satkhira)					4 067		
P2	(Bagerhat)					1 048		
S1	(Jessore)					9 588		
S2	(Kaliganj)					3 875		
S5	(Jhenaidah)					4 812		
S3	(Magura)					3 761		
T1	(Chuadanga)					9 774		
N1	(Muladuli+)				14 425			
	+ Transit For							
N2	+(Pabna)					3 288		
T2	+(Kushtia)					9 391		
N4	(Sirajganj)				4 309			
K1	(Rajshahi)				7 522			
K2	(Amnura)				3 731			
K3	(Rohanpur)				3 291			
K4	(Natore)				6 190			
K5	(Atrai)				3 474			
	Carried Forward	0	0	184 752	42 942	50 841	0	

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TABLE 4-13

FERTILIZER MOVEMENT PROGRAM FROM CHALNA PORT
FOR 219551 LONG TONS TSP DURING DRY SEASON

NFSP Ref.	To PDP Location At	Main Mode of Movement			Transit Mode			Remarks
		Rail	Truck	Barge	Rail	Road	Barge/ Boat	
		Tons	Tons	Tons	Tons	Tons	Tons	
	Brought Forward	0	0	184 752	42 942	50 841	0	
	*Transit For (Cont'd)							
M1	(Santahar+)				38 016			
	+MG Transfer							
M3	+(Bogra)				14 329			
L6	+(Gaibandha)				10 568			
M2	(Joypurhat)				5 618			
O4	(Cherkai)				4 600			
O5T	(Parbatipur+)				41 633			
	+MG Transfer							
O1	+(Dinajpur)				7 474	7 474		Truck from RS to PDP.
O2	+(Shibganj)				6 912			
O3	+(Panchagar)				4 025			
L1	+(Rangpur)				9 924			
L7	+(Mahendranagar)				11 298			
L3	(Saidpur)				6 453	6 453		Truck from RS to PDP.
L4	(Domar)				4 423			
Q3	Tushkhali			3 794				
Q2	Kawkhali			2 467				
E3	Gopalganj			701				
R2	Barguna			2 971				
Q4	Barisal			3 342				
R1	Patuakhali			3 824				
E5	Madaripur			3 111		3 111		Truck from Ghat to PDP.
	Carried Forward	0	0	204 962	210 215	67 879	0	

RS: Railway Station

TABLE 4-13

FERTILIZER MOVEMENT PROGRAM FROM CHALNA PORT
FOR 219551 LONG TONS TSP DURING DRY SEASON

Sheet 3 of 3

NFSP Ref.	To PDP Location At	Main Mode of Movement			Transit Mode			Remarks
		Rail	Truck	Barge	Rail	Road	Barge/ Boat	
		Tons	Tons	Tons	Tons	Tons	Tons	
	Brought Forward	0	0	204 962	210 215	67 879	0	
G1	Bhola			6 851				
A1	Demra			7 738				Part only. Balance from Chittagong Port.
	Total	0	0	219 551	210 215	67 879	0	Total Transit = 278 094 Tons
	Percentage	0	0	100%	75.59%	24.41%	0	= 126.68%

Imports = 219 551 Tons

TABLE 4-14 FERTILIZER MOVEMENT PROGRAM FROM CHALNA PORT FOR 133849 LONG TONS TSP DURING WET SEASON

Sheet 1 of 2

MTSP Ref.	To PDP Location At	Main Mode of Movement			Transit Mode			Remarks
		Rail Tons	Truck Tons	Barge Tons	Rail Tons	Road Tons	Barge/Boat Tons	
B4	Narail			1 101				
P6	Rajapur			844				
P5	Roosevelt Jetty			828		828		Truck to PDP.
P4T	Shiromoni *			120 253				
	*Transit For							
P1	(Satkhira)					2 723		
S1	(Jessore)					6 422		
S2	(Kaliganj)					2 595		
S5	(Jhenaidah)					3 223		
S3	(Magura)					2 519		
T1	(Chuadanga)					6 546		
N1	(Muladuli+)				9 660			
	+Transit For							
N2	+(Pabna)					2 202		
T2	+(Kushtia)					6 289		
N4	(Sirajganj)				2 886			
K1	(Rajshahi)				5 038			
K2	(Amnura)				2 499			
K3	(Rohanpur)				2 204			
K4	(Natore)				4 145			
K5	(Atrai)				2 326			
	Carried Forward	0	0	123 026	28 758	33 347	0	

TABLE 4-14 FERTILIZER MOVEMENT PROGRAM FROM CHALNA PORT FOR 133849 LONG TONS TSP DURING WET SEASON

MFSP Ref.	To PDP Location At	Main Mode of Movement			Transit Mode			Remarks
		Rail Tons	Truck Tons	Barge Tons	Rail Tons	Road Tons	Barge/ Boat Tons	
	Brought Forward	0	0	123 026	28 758	33 347	0	
	*Transit For (Cont'd)							
M1	(Santahar+)				25 459			
	+MG Transfer							
M3	+(Bogra)				9 596			
L6	+(Gaibandha)				7 077			
M2	(Joypurhat)				3 762			
O4	(Charkai)				3 080			
OST	(Parbatipur+)				27 882			
	+MG Transfer							
O1	+(Dinajpur)				5 006	5 006		Truck from RS to PDP.
O2	+(Shibganj)				5 968			
O3	+(Panchagar)				2 695			
L1	+(Rangpur)				6 646			
L7	+(Mahandranagar)				7 567			
L3	(Saidpur)				4 322	4 322		Truck from RS to PDP.
L4	(Domar)				2 962			
P2	Bagerhat			702				
Q3	Tushkhali			2 541				
Q2	Kawkhali			1 653				
E3	Gopalganj			469				
R2	Barguna			1 989				
Q4	Barisal			2 238				
R1	Patuakhali			1 231				Part only. Balance 1330 Tons from Chalna.
	Total 133849 =	0	0	133 849	140 780	42 675	0	Total Transit =183455 Tons
	Percentage	0	0	100%	76.74%	23.26%	0	=137.08%

Imports = 133 849 Tons

RS: Railway Station

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TABLE 4-15 FERTILIZER MOVEMENT PROGRAM FROM CHITTAGONG PORT FOR 64647 LONG TONS M.P. DURING DRY SEASON

Sheet 1 of 2

MFSP Ref.	To PDP Location At	Main Mode of Movement			Transit Mode			Remarks
		Rail	Truck	Barge	Rail	Road	Barge/ Boat	
		Tons	Tons	Tons	Tons	Tons	Tons	
F5	Chittagong		5 103					
F1	Dohazari		1 812					
F2	Chakaria		1 186					
F3	Cox's Bazar		1 294					
H1	Feni		2 875					
I5	Laksam	2 844						
H2	Chaumuhani*	2 988				1 848		Truck from RS to PDP.
	*Transit For							
H3	(Laksmipur)					1 138		
I1	Comilla	4 276						
I2	Brahmanbaria	3 617				3 617		Truck from RS to PDP.
J1	Laskarpur	1 620						
J8	Srimangal	695						
J2	Kulaura	443						
J7	Sylhet	844						
J6T	Chhatak*	957						
	*Transit For							
J5	(Sunamganj)						572	
J4	(Jamalganj)						395	
B4	Sararchar	1 109						
B1	Kishoreganj	3 444						
B2	Notrakona	1 437						
B3	Jaria	779						
	Carried Forward	24 860	12 270	0	0	6 603	967	

RS: Railway Station

TABLE 4-15

FERTILIZER MOVEMENT PROGRAM FROM CHITTAGONG PORT
FOR 64647 LONG TONS M.P. DURING DRY SEASON

Sheet 2 of 2

MFSP Ref.	To PDP Location At	Main Mode of Movement			Transit Mode			Remarks
		Rail	Truck	Barge	Rail	Road	Barge/ Boat	
		Tons	Tons	Tons	Tons	Tons	Tons	
	Brought Forward	24 860	12 270	0	0	6 603	967	
C1	Shambhuganj	1 770						
C2	Mymensingh*	4 492						
	*Transit For							
D1	(Madhupur)					2 219		
C3	Jamalpur*	2 800						
	*Transit For							
C5	(Sherpur)					1 542	1 542+	+River Crossing by Boat.
C4	Melandah	1 449						
C6	Goffargaon	1 740						
J3	Azmirigan j			1 539				
B6	Bhairab			1 979				
B5	Kuliarchar			1 228				
A5	Narsingdi			1 949				
I3	Daudkandi			1 455				
I4	Chandpur			2 120				
H4	Hatiya			760		760		Truck from Ghat to PDP.
F4	Sandwip			770		770		Truck from Ghat to PDP.
A1	Demra			3 466				Make up shortages at Demra. See Chalna's Movement Program.
	Total 64 647 =	37 111	12 270	15 266	0	11 894	2 509	Total Transit = 14 403 Tons
	Percentage	57.41%	18.98%	23.61%	0	82.58%	17.42%	= 22.28%

Imports = 64 647 Tons.

TABLE 4-18 FERTILIZER MOVEMENT PROGRAM FROM CHITTAGONG PORT FOR 42853 LONG TONS M.P. DURING WET SEASON

Sheet 1 of 2

MFSP Ref.	To PDP Location At	Main Mode of Movement			Transit Mode			Remarks
		Rail	Truck	Barge	Rail	Road	Barge/ Boat	
		Tons	Tons	Tons	Tons	Tons	Tons	
F5	Chittagong		3 417					
F1	Dohazari		1 213					
F2	Chakaria		794					
F3	Cox's Bazar			866*				
H1	Feni		1 925					
I5	Laksam	1 771						
H2	Chaumuhani*	1 999				1 237		Truck from RS to PDP.
	*Transit For							
H3	(Laksmipur)					762		
I1	Comilla	2 864						
I2	Brahmanbaria	2 423				2 423		Truck from RS to PDP.
J1	Lakarpur	1 085						
J8	Srimangal	485						
J2	Kulaura	287						
J7	Sylhet	586						
J6T	Chhatak*	648						
	*Transit For							
J5	(Sunamganj)						383	
J4	(Jamalganj)						265	
B4	Sarerchar	742						
B1	Kishoreganj	2 308						
B2	Netrakona	963						
B3	Jaria	521						
	Carried Forward	15 650	7 349	866	0	4 422	648	

RS: Railway Station.

*Coaster preferred.

TABLE 4-16 FERTILIZER MOVEMENT PROGRAM FROM CHITTAGONG PORT FOR 42853 LONG TONS M.P. DURING WET SEASON

MFSP Ref.	To PDP Location At	Main Mode of Movement			Transit Mode			Remarks
		Rail Tons	Truck Tons	Barge Tons	Rail Tons	Road Tons	Barge/ Boat Tons	
	Brought Forward	16 650	7 349	366	0	4 422	648	
C1	Shambhuganj	1 185						
C2	Mymensingh*	3 008						
	*Transit For							
D1	(Madhupur)					1 486		
C3	Jamalpur*	1 875						
	*Transit For							
C5	(Sherpur)					1 033	1 033+	Roads may be flooded. +Boat Transfer.
C4	Melandah	971						
C6	Gaffargaon	1 165						
J3	Azmirigan]			1 031				
B6	Bhairab			1 326				
B5	Kulisrohar			822				
A5	Narsingdi			1 306				
I3	Daudkandi			975				
I4	Chandpur			1 420				
A1	Demra			2 904				Make up Shortages at Demra. See Chalna's Movement Program.
	Total 42 853 =	24 854	7 349	10 650	0	6 941	1 681	Total Transit =8 622 Tons
	Percentage	58.00%	17.15%	24.85%	0	80.50%	19.50%	=20.12%

Imports = 42 853 Tons.

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TABLE 4-17

FERTILIZER MOVEMENT PROGRAM FROM CHALNA PORT
FOR 85694 LONG TONS M.P. DURING DRY SEASON

MFSP Ref.	To PDP Location At	Main Mode of Movement			Transit Mode			Remarks
		Rail	Truck	Barge	Rail	Road	Barge/ Boat	
		Tons	Tons	Tons	Tons	Tons	Tons	
S4	Narail			410				
P6	Rajapur			419				
P5	Roosevelt Jetty			437		437		Truck to PDP.
P4T	Shiromoni*			61 268				
	*Transit For							
P1	(Satkhira)					1 455		
P2	(Bagerhat)					374		
S1	(Jessore)					2 396		
S2	(Kaliganj)					970		
S5	(Jhenaidah)					1 204		
S3	(Magura)					940		
T1	(Chuadanga)					2 444		
N1	(Muladuli+)				3 528			
	+Transit For							
N2	+(Pabna)					773		
T2	+(Kushtia)					2 348		
N4	(Sirajganj)				1 012			
K1	(Rajshahi)				2 908			
K2	(Amnura)				1 434			
K3	(Rohanpur)				1 267			
K4	(Natore)				2 393			
K5	(Atrai)				1 345			
	Carried Forward	0	0	62 534	13 887	13 341	0	

TABLE 4-17

FERTILIZER MOVEMENT PROGRAM FROM CHALNA PORT
FOR 85594 LONG TONS MP DURING DRY SEASON

Sheet 2 of 3

FSP Ref.	To PDP Location At	Main Mode of Movement			Transit Mode			Remarks
		Rail	Truck	Barge	Rail	Road	Barge/ Boat	
		Tons	Tons	Tons	Tons	Tons	Tons	
	Brought Forward	0	0	62 534	13 887	13 341	0	
	*Transit For (Cont'd)							
M1	(Santahar+)				13 059			
	+MG Transfer							
M3	+(Bogra)				4 204			
L6	+(Gaibandha)				4 076			
M2	(Joypurhat)				1 665			
O4	(Charkai)				1 916			
O5T	(Parbatipur+)				16 658			
	+MG Transfer							
O1	+(Dinajpur)				3 114	3 114		Truck from RS to PDP.
O2	+(Shibganj)				3 713			
O3	+(Panchagar)				1 677			
L1	+(Rangpur)				3 821			
L7	+(Mahendranagar)				4 333			
L3	(Saidpur)				2 554	2 554		Truck from RS to PDP.
L4	(Domar)				1 746			
Q3	Tushkhali			1 240				
Q2	Kawkhali			791				
E3	Gopalganj			246				
R2	Barguna			916				
Q4	Barisal			1 072				
R1	Patuakhali			1 174				
E5	Madaripur			1 069		1 069		Truck from Ghat to PDP.
	Carried Forward	0	0	69 042	76 423	20 078	0	

RS: Railway Station

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TABLE 4-17

FERTILIZER MOVEMENT PROGRAM FROM CHALNA PORT
FOR 85694 LONG TONS M.P. DURING DRY SEASON

Sheet 2 of 3

MFSP Ref.	To PDP Location At	Main Mode of Movement			Transit Mode			Remarks
		Rail	Truck	Barge	Rail	Road	Barge/ Boat	
		Tons	Tons	Tons	Tons	Tons	Tons	
	Brought Forward	0	0	69 042	76 423	20 078	0	
E2	Palong			713				
Q1	Bhola			2 192				
E4	Tepakhola*			2 345		1 749		Truck from Ghat to PDP.
	*Transit For							
E1	(Rajbari)					586		
N3	Baghabari*			2 369		368		1/3 Truck to Shahjadpur.
	*Transit For							
N5	(Ullapara)					1 264		
A8	Mirkadim			1 617				
A7	Sirajdikhan			931				
A1	Demra*			5 395				Part only. Balance 3488 Tons from Chittagong Port.
	*Transit For							
A2	(Savar)					1 413		
A6	(Manikganj)					734		
A3	(Joydebpur)					1 219		
D2	(Mirzapur)					1 467		
D3	(Tangail)					2 378		
A4	Kaliganj			1 090				
	Total	0	0	85 694	76 423	31 266	0	Total Transit =107 689 Tons
	Percentage	0	0	100%	70.97%	29.03%	0	=125.67%

Imports = 85 694 Tons

TABLE 4-18

FERTILIZER MOVEMENT PROGRAM FROM CHALNA PORT
FOR 56806 LONG TONS M.P. DURING WET SEASON

IFSP Ref.	To PDP Location At	Main Mode of Movement			Transit Mode			Remarks
		Rail	Truck	Barge	Rail	Road	Barge/ Boat	
		Tons	Tons	Tons	Tons	Tons	Tons	
S4	Narail			275				
P6	Rajapur			281				
P5	Roosevelt Jetty			293		293		Truck to PDP.
P2	Bagerhat			251				
P4T	Shiromoni*			40 781				
	*Transit For							
P1	(Satkhira)					975		
S1	(Jessore)					1 604		
S2	(Kaliganj)					650		
S5	(Jhenaidah)					806		
S3	(Magura)					630		
T1	(Chuadanga)					1 636		
N1	(Muladuli+)				2 362			
	+Transit For							
N2	+(Patna)					517		
T2	+(Kushtia)					1 572		
N4	(Sirajganj)				678			
K1	(Rajshahi)				1 947			
K2	(Amnura)				961			
K3	(Rohanpur)				848			
K4	(Natore)				1 602			
K5	(Atrai)				900			
	Carried Forward	0	0	41 881	9 298	8 683	0	

TABLE 4-18 FERTILIZER MOVEMENT PROGRAM FROM CHALNA PORT FOR 56806 LONG TONS M.P. DURING WET SEASON

NFSP Ref.	To PDP Location At	Main Mode of Movement			Transit Mode			Remarks
		Rail	Truck	Barge	Rail	Road	Barge/ Boat	
		Tons	Tons	Tons	Tons	Tons	Tons	
	Brought Forward	0	0	41 881	9 298	8 683	0	
	*Transit For (Cont'd.)							
M1	(Santahar+)				8 746			
	+MG Transfer							
M3	+(Bogra)				2 816			
L6	+(Gaibandha)				2 729			
M2	(Joypurhat)				1 115			
O4	(Charkai)				1 284			
O5T	(Parbatipur+)				11 157			
	+MG Transfer							
O1	+(Dinajpur)				2 086	2 086		Truck from RS to PDP.
O2	+(Shibganj)				2 487			
O3	+(Panchagar)				1 123			
L1	+(Rangpur)				2 559			
L7	+(Mahendranagar)				2 902			
L3	(Saidpur)				1 711	1 711		Truck from RS to PDP.
L4	(Domar)				1 169			
Q3	Tushkhali			830				
Q2	Kawkhali			529				
E3	Gopalganj			164				
R2	Barguna			614				
Q4	Barisal			718				
R1	Patuakhali			786				
E5	Madaripur			716		718		Truck from Ghat to PDP.
	Carried Forward	0	0	46 238	51 182	13 196	0	

RS: Railway Station

TABLE 4-18

FERTILIZER MOVEMENT PROGRAM FROM CHALNA PORT
FOR 56806 LONG TONS M.P. DURING WET SEASON

MFSP Ref.	To PDP Location At	Main Mode of Movement			Transit Mode			Remarks
		Rail	Truck	Barge	Rail	Road	Barge/ Boat	
		Tons	Tons	Tons	Tons	Tons	Tons	
	Brought Forward	0	0	48 238	51 182	13 196	0	
E2	Palong			477				
Q1	Bhola			1 468				
E4	Tepakhola *			1 570		1 171		Truck from Ghat to PDP.
	*Transit For							
E1	(Rajbari)					399		
N3	Baghabari*			1 586		243		1/3 Truck to Shadjapur.
	*Transit For							
N5	(Ullapara)					846		
A8	Mirkadim			1 083				
A7	Sirajdikhan			624				
A1	Demra*			3 030				Part only. Balance 2804 Tons from Chittagong Port.
	*Transit For							
A2	(Savar)					947		
A6	(Manikganj)					491		
A3	(Joydebpur)					816		
D2	(Mirzapur)					983		
D3	(Tangail)					1 592		
A4	Kaliganj			730				
	Total	0	0	56 806	51 182	20 684	0	Total Transit =71 866 Tons
	Percentage	0	0	100%	71.22%	28.78%	0	=126.51%

Imports = 56 806 Tons.

TABLE 4-19 FERTILIZER MOVEMENT BY UNIT TRAINS

Sheet 1 of 1
(Figures in Tons)

Season and Product	Origin			Total
	Shiromani	Ghorasal	Ashuganj	
Dry Season				
UREA	-	164 034	92 282	256 316
TSP	143 685	-	-	143 685
MP	51 485	-	-	51 485
Sub-Total	195 170	164 034	92 282	451 486
Wet Season				
UREA	-	120 164	134 290	254 454
TSP	96 225	-	-	96 225
MP	34 480	-	-	34 480
Sub-Total	130 705	120 164	134 290	385 159
Total Fertilizer	325 875	284 198	226 572	836 645
Productwise Total:				
UREA	-	284 198	226 572	510 770
TSP	239 910	-	-	239 910
MP	85 965	-	-	85 965
Percent of Annual Sales Projections:				
UREA		27.33%	21.78%	49.11%
TSP	32.42%	0	0	32.42%
MP	34.39%	0	0	34.39%

TABLE 4-20 FERTILIZER MOVEMENT BY NORMAL BLOCK TRAINS

Sheet 1 of 1
(Figures in Tons)

Season & Product	Origin			Transfer Movements			Total Including Transfer
	Chittagong	Fenchuganj	Total	Santahar	Parbatipur	Total	
Dry Season							
UREA	15 072	37 500	52 572	53 532	11 241	64 773	107 296
TSP	112 924	-	112 924	24 897	41 633	66 530	179 454
MP	37 111	-	37 111	8 280	16 658	24 938	62 049
Sub-Total	165 107	37 500	202 607	86 709	69 532	156 241	348 799
Wet Season							
UREA	-	37 500	37 500	55 453	7 529	62 982	93 751
TSP	75 626	-	75 626	16 673	27 882	44 555	120 181
MP	24 854	-	24 854	5 545	11 157	16 702	41 556
Sub-Total	100 480	37 500	137 980	77 671	46 568	124 239	255 488
Total Fertilizer	265 587	75 000	340 587	164 380	116 100	280 480	604 287
Productwise Total:							
UREA	15 072	75 000	90 072	108 985	18 770	127 755	201 047
TSP	188 550	-	188 550	41 570	69 515	111 085	299 635
MP	61 965	-	61 965	13 825	27 815	41 640	103 605
Percent of Annual Sales Projections:							
UREA	1.45%	7.21%	8.66%	10.48%	1.80%	12.28%	19.33%
TSP	25.48%	0	25.48%	5.62%	9.39%	15.01%	40.49%
MP	24.79%	0	24.79%	5.53%	11.13%	16.66%	41.45%

TABLE 4-21 FERTILIZER MOVEMENT BY RIVER

Sheet 1 of 1
(Figures in Tons)

Season and Product	Origin					Total
	Chalna	Chittagong	Ashuganj	Ghorasal	Chhatak	
Dry Season						
UREA	79 800	7 535	132 210	3 941	5 363	228 849
TSP	204 962	79 706	-	-	2 791	287 459
MP	85 694	15 266	-	-	967	101 927
Sub-Total	370 456	102 507	132 210	3 941	9 121	618 235
Wet Season						
UREA	-	3 461	94 498	50 131	3 592	151 682
TSP	133 849	65 373	-	-	1 869	201 091
MP	56 806	10 650	-	-	648	68 104
Sub-Total	190 655	79 484	94 498	50 131	6 109	420 877
Total Fertilizer	561 111	181 991	226 708	54 072	15 230	1 039 112
Productwise Total:						
UREA	79 800	10 996	226 708	54 072	8 955	380 531
TSP	338 811	145 079	-	-	4 660	488 550
MP	142 500	25 916	-	-	1 615	170 031
Percent of Annual Sales Projections:						
UREA	7.67%	1.06%	21.80%	5.20%	0.86%	36.59%
TSP	45.79%	19.61%	0	0	0.63%	66.03%
MP	57.00%	10.37%	0	0	0.65%	68.02%

TABLE 4-22 FERTILIZER MOVEMENT BY ROAD

Sheet 1 of 1
(Figures in Tons)

Season and Product	Origin					Total
	Chittagong	Demra	Shiromoni	Ashuganj	Ghorasal	
Dry Season						
UREA	37 593	24 495	49 262	13 008	7 025	131 383
TSP	32 997	18 619	100 610	-	-	232 226
MP	12 270	7 211	61 268	-	-	80 749
Sub-Total	82 860	50 325	291 140	13 008	7 025	444 358
Wet Season						
UREA	21 716	16 405	31 683	8 712	4 705	83 221
TSP	19 974	12 468	120 026	-	-	152 468
MP	7 349	4 829	40 781	-	-	52 959
Sub-Total	49 039	33 702	192 490	8 712	4 705	288 648
Total Fertilizer	131 899	84 027	483 630	21 720	11 730	733 006
Productwise Total:						
UREA	59 309	40 900	80 945	21 720	11 730	214 604
TSP	52 971	31 087	300 636	-	-	384 694
MP	19 619	12 040	102 049	-	-	133 708
Percent of Annual Sales Projections:						
UREA	5.70%	3.93%	7.78%	2.09%	1.13%	20.63%
TSP	7.16%	4.20%	40.63%	0	0	51.99%
MP	7.85%	4.82%	40.82%	0	0	53.49%

TABLE 5-1 INVENTORY OF BADC EXISTING FERTILIZER WAREHOUSES AT PDP LOCATIONS

(Figures in Tons)

NFSP Ref.	Locations of PDP and Transit Points	Warehouse Categories and Existing Capacities								Total
		BADC Owned & Constructed Warehouse						Warehouse Under Construction		
		Transit	Big & Inter.	Hardcore	USAID Ph-I	Ex-BWC	Addit'l.	Hardcore	USAID Ph-I	
A	DACCA DISTRICT									
A1	Demra									-
A2	Savar						400			400
A3	Joydebpur				500					500
A4	Kaliganj						400			400
A5	Narsingdi		500	400		1 000				1 900
A6	Manikganj								1 000	1 000
A7	Sirajdikhan								1 000	1 000
A8	Nirkadim		1 000							1 000
	Sub-Total	-	1 500	400	500	1 000	800	-	2 000	6 200
B	KISHOREGANJ DISTRICT									
B1	Kishoreganj		2 000							2 000
B2	Netrakona									-
B3	Jaria						400			400
B4	Sararchar		2 000							2 000
B5	Kuliarchar						400	2 000		2 400
B6	Bhairab						400	2 000 2 000		4 400
	Sub-Total	-	4 000	-	-	-	1 200	6 000	-	11 200
C	MYMENSINGH & JAMALPUR DISTRICTS									
C1	Shambhuganj			2 000						2 000
C2	Mymensingh		2 000				200			2 200
C3	Jamalpur		500	1 000						1 500
C4	Melandah						200			200
C5	Sherpur						200			200
C6	Gaffargaon		1 000							1 000
	Sub-Total	-	3 500	3 000	-	-	600	-	-	7 100

TABLE 5-1 INVENTORY OF BADC EXISTING FERTILIZER WAREHOUSES AT PDP LOCATIONS

(Figures in Tons)

MPSP Ref.	Locations of PDP and Transit Points	Warehouse Categories and Existing Capacities								Total
		BADC Owned & Constructed Warehouse						Warehouse Under Construction		
		Transit	Big & Inter.	Hardcore	USAID Ph-I	Ex-BWC	Addit'l.	Hardcore	USAID Ph-I	
D	TANGAIL DISTRICT									
D1	Madhupur						200			200
D2	Mirzapur						200			200
D3	Tangail		1 000	2 000						3 000
	Sub-Total	-	1 000	2 000	-	-	400	-	-	3 400
E	FARIDPUR DISTRICT									
E1	Rajbari		500							500
E2	Palong									-
E3	Gopalganj						400			400
E4	Tepakhola				2 000					2 000
E5	Madaripur		500						500	1 000
	Sub-Total	-	1 000	-	2 000	-	400	-	500	3 900
F	CHITTAGONG & CHITTAGONG HILL TRACTS DISTRICTS									
F1	Bohazari		500							500
F2	Chakaria						200			200
F3	Cox's Bazar						400			400
F4	Sandwip						200 200			400
F5	Chittagong	12 500 7 500 5 000	2 000 2 000 1 000 1 000 1 000 500 500				200	2 000		35 200
	Sub-Total	25 000	8 500	-	-	-	1 200	2 000	-	36 700

TABLE 5-1 INVENTORY OF BADC EXISTING FERTILIZER WAREHOUSES AT PDP LOCATIONS

(Figures in Tons)

NFSP Ref.	Locations of PDP and Transit Points	Warehouse Categories and Existing Capacities								
		BADC Owned & Constructed Warehouse						Warehouse Under Construction		Total
		Transit	Big & Inter.	Hardcore	USAID Ph-I	Ex-BWC	Addit'l.	Hardcore	USAID Ph-I	
H	NOAKHALI DISTRICT									
H1	Feni		500						3 000	3 500
H2	Chaumuhani		500							500
H3	Laksmipur						400		1 000	1 400
H4	Hatiya						400			400
	Sub-Total	-	1 000	-	-	-	800	-	4 000	5 800
I	COMILLA DISTRICT									
I1	Comilla		1 000					1 000		2 000
I2	Brahmanbaria		1 000					750		1 750
I3	Daudkandi						400			400
I4	Chandpur		1 000 500							1 500
I5	Laksam		500 500							1 000
	Sub-Total	-	4 500	-	-	-	400	1 750	-	6 650
J	SYLHET DISTRICT									
J1	Laskarpur									-
J2	Kulaura			400						400
J3	Azmiriganj						200			200
J4	Jamalganj									-
J5	Sunamganj									-
J6T	Chhatak						200			200
J7	Sylhet		1 000							1 000
J8	Srimangal			1 000						1 000
	Sub-Total	-	1 000	1 400	-	-	400	-	-	2 800

TABLE 5-1 INVENTORY OF BADC EXISTING FERTILIZER WAREHOUSES AT PDP LOCATIONS

(Figures in Tons)

NPSP Ref.	Locations of PDP and Transit Points	Warehouse Categories and Existing Capacities								
		BADC Owned & Constructed Warehouse						Warehouse Under Construction		Total
		Transit	Bigs Inter.	Hardcore	USAID Ph-I	Ex-BWC	Addit'l.	Hardcore	USAID Ph-I	
K	RAJSHAHI DISTRICT									
K1	Rajshahi		1 000							1 000
K2	Amnura									-
K3	Rohanpur									-
K4	Natore						200			200
K5	Atrai		500							500
	Sub-Total	-	1 500	-	-	-	200	-	-	1 700
L	RANGPUR DISTRICT									
L1	Rangpur		500				200		3 000	3 700
L2	Lalmonirhat		500							500
L3	Saidpur						400	2 000		2 400
L4	Domar									-
L5	Kurigram						200		2 000	2 200
L6	Gaibandha				2 000	1 000 1 000 1 000 1 000				6 000
L7	Mahendranagar									-
	Sub-Total	-	1 000	-	2 000	4 000	800	2 000	5 000	14 800
M	BOGRA DISTRICT									
M1	Santahar		1 000 1 000		1 000		400*	2 000*		5 400
M2	Joypurhat						400	2 000		2 400
M3	Bogra		500	2 000						2 500
	Sub-Total	-	2 500	2 000	1 000	-	800	4 000	-	10 300

* Located at Naogaon

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TABLE 5-1 INVENTORY OF BADC EXISTING FERTILIZER WAREHOUSES AT PDP LOCATIONS

(Figures in Tons)

NFSP Ref.	Locations of PDP and Transit Points	Warehouse Categories and Existing Capacities								
		BADC Owned & Constructed Warehouse						Warehouse Under Construction		Total
		Transit	Big & Inter.	Hardcore	USAID Ph-I	Ex-BWC	Addit'l.	Hardcore	USAID Ph-I	
N	PABNA DISTRICT									
N1	Muladuli		500+ 500+							1 000
N2	Pabna						200			200
N3	Baghabari									–
N3A	Shahjadpur								2 000	2 000
N4	Sirajganj		500							500
N5	Ullapara								2 000	2 000
	Sub-Total	–	1 500	–	–	–	200	–	4 000	5 700
O	DINAJPUR DISTRICT									
O1	Dinajpur		1 000							1 000
O2	Shibganj					1 000 1 000				2 000
O3	Panchagar						200			200
O4	Sharkai									–
O5T	Parbatipur		500 500							1 000
	Sub-Total	–	2 000	–	–	2 000	200	–	–	4 200

+ Located at Ishurdi

TABLE 5-1 INVENTORY OF BADC EXISTING FERTILIZER WAREHOUSES AT PDP LOCATIONS

(Figures in Tons)

NWSP Ref.	Locations of PDP and Transit Points	Warehouse Categories and Existing Capacities								
		BADC Owned & Constructed Warehouse						Warehouse Under Construction		Total
		Transit	Big & Inter.	Hardcore	USAID Ph-I	Ex-BWC	Addit'l.	Hardcore	USAID Ph-I	
P	KHULNA DISTRICT									
P1	Satkhira		500							500
P2	Bagerhat						400			400
P3T	Chalna									–
P4T	Shiromoni	7 500								7 500
P5	Roosevelt Jetty							3 000		3 000
P6	Rajapur									–
	Sub-Total	7 500	500	–	–	–	400	3 000	–	11 400
Q	BARISAL DISTRICT									
Q1	Bhola		1 000 500							1 500
Q2	Kawkhali									–
Q3	Tushkhali						400			400
Q4	Barisal		500					2 000 2 000		4 500
	Sub-Total	–	2 000	–	–	–	400	4 000	–	6 400
R	PATUAKHALI DISTRICT									
R1	Patuakhali		500					2 000		2 500
R2	Barguna						200			200
	Sub-Total	–	500	–	–	–	200	2 000	–	2 700
S	JESSORE DISTRICT									
S1	Jessore		1 000 1 000		500					2 500
S2	Kaliganj		500		1 000					1 500
S3	Magura						200			200
S4	Narail									–
S5	Jhenaidah								500	500
	Sub-Total	–	2 500	–	1 500	–	200	–	500	4 700

TABLE 5-1 INVENTORY OF BADC EXISTING FERTILIZER WAREHOUSES AT PDP LOCATIONS

(Figures in Tons)

NISP Ref.	Locations of PDP and Transit Points	Warehouse Categories and Existing Capacities								
		BADC Owned & Constructed Warehouse						Warehouse Under Construction		Total
		Transit	Big & Inter.	Hardcore	USAID Ph-I	Ex-BWC	Addit'l.	Hardcore	USAID Ph-I	
T	KUSHTIA DISTRICT									
T1	Chuadanga									-
T2	Kushtia		2 000							2 000
	Sub-Total	-	2 000	-	-	-	-	-	-	2 000
TOTAL NATIONAL TONNAGE		32 500	42 000	8 800	7 000	7 000	9 600	24 750	16 000	147 650
TOTAL NUMBER OF UNITS		4	50	7	6	7	33	13	9	129

NOTE: Ex-BWC stands for former Bangladesh Warehousing Corporation's Warehouses acquired by BADC.

TABLE 5-2 DISTRICT BUFFER STOCK PLAN

District		No. of Turnovers per year	Buffer Stock (No. of Months of Annual Sales)
A.	Dacca	6	2
B.	Kishoroganj	4	3
C.	Mymensingh & Jamalpur	4	3
D.	Tangail	6	2
E.	Faridpur	4	3
F.	Chittagong	6	2
G.	Chittagong Hill Tracts	-	-
H.	Noakhali	6	2
I.	Comilla	6	2
J.	Sylhet	4	3
K.	Rajshahi	3	4
L.	Rangpur	3	4
M.	Bogra	3	4
N.	Pabna	3	4
O.	Dinajpur	3	4
P.	Khulna	6	2
Q.	Barisal	4	3
R.	Patuakhali	4	3
S.	Jessore	6	2
T.	Kushtia	6	2

TABLE 5-3 PDP WAREHOUSE STORAGE CAPACITIES FOR NATIONAL FERTILIZER STORAGE PLAN AND CONSTRUCTION

(Figures in Tons)

NFSP Ref.	Locations of PDP and Transit Points	1985 Sales Projections		1985 Storage Capacity Requirements			Existing Warehouse Storage Capacity	Schedule of Warehouse Capacities	
		Sales at PDP	Transit to Other PDPs	PDP Storage Capacity	Transit Storage Capacity	Total Storage Capacity		For NFSP, 1985	For Construction
A	DACCA DISTRICT								
A1	Demra	20 675	84 027	3 446	7 002	10 448	-	10 500	15 000
A2	Savar	17 700		2 950		2 950	400	2 500	2 000
A3	Joydebpur	15 285		2 548		2 548	500	2 000	3 000
A4	Kaliganj	13 670		2 278		2 278	400	2 000	2 000
A5	Narsingdi	24 500		4 083		4 083	1 900	2 000	3 000
A6	Manikganj	9 200		1 533		1 533	1 000	500	-
A7	Sirajdikhan	11 660		1 943		1 943	1 000	1 000	-
A8	Mirkadim	20 260		3 377		3 377	1 000	2 500	-
	Sub-Total	132 950	84 027	22 158	7 002	29 160	6 200	23 000	25 000
B	KISHOREGANJ DISTRICT								
B1	Kishoreganj	43 440		10 860		10 860	2 000	9 000	4 000
B2	Netrakona	17 590		4 398		4 398	-	4 500	5 000
B3	Jaria	9 530		2 383		2 383	400	2 000	2 000
B4	Sararchar	13 565		3 391		3 391	2 000	1 500	-
B5	Kuliarchar	15 035		3 759		3 759	2 400	1 500	-
B6	Bhairab	24 730		6 183		6 183	4 400	1 500	-
	Sub-Total	123 890		30 974		30 974	11 200	20 000	11 000
C	MYMENSINGH & JAMALPUR DISTRICTS								
C1	Shambhuganj	24 565		6 141		6 141	2 000	4 000	4 000
C2	Mymensingh	31 615	24 080	7 904	2 007	9 911	2 200	7 500	3 000
C3	Jamalpur	17 490	21 530	4 373	1 794	6 167	1 500	4 500	6 000
C4	Melandah	20 160		5 040		5 040	200	5 000	5 000
C5	Sherpur	21 530		5 383		5 383	200	5 000	6 000
C6	Gaffargaon	24 210		6 053		6 053	1 000	5 000	4 000
	Sub-Total	139 570	45 610	34 894	3 801	38 695	7 100	31 000	28 000

TABLE 5-3 PDP WAREHOUSE STORAGE CAPACITIES FOR NATIONAL FERTILIZER STORAGE PLAN AND CONSTRUCTION

(Figures in Tons)

NFSP Ref.	Locations of PDP and Transit Points	1985 Sales Projections		1985 Storage Capacity Requirements			Existing Warehouse Storage Capacity	Schedule of Warehouse Capacities	
		Sales at PDP	Transit to Other PDPs	PDP Storage Capacity	Transit Storage Capacity	Total Storage Capacity		For NFSP, 1985	For Construction
D	TANGAIL DISTRICT								
D1	Madhupur	24 080		6 020		6 020	200	6 000	5 000
D2	Mirzapur	15 985		2 664		2 664	200	2 500	2 000
D3	Tangail	25 855		4 309		4 309	3 000	1 500	-
	Sub-Total	65 920		12 986		12 986	3 400	10 000	7 000
E	FARIDPUR DISTRICT								
E1	Rajbari	7 830		1 958		1 958	500	1 500	1 000
E2	Palong	9 370		2 343		2 343	-	2 500	2 000
E3	Gopalganj	3 210		803		803	400	500	1 000
E4	Tepakhola	22 880		5 720		5 720	2 000	3 500	4 000
E5	Madaripur	15 060		3 765		3 765	1 000	2 500	2 000
	Sub-Total	58 350		14 489		14 489	3 900	10 500	10 000
F	CHITTAGONG & CHITTAGONG H.T. DISTRICTS								
F1	Dohazari	22 590		3 765		3 765	500	3 000	2 000
F2	Chakaria	14 725		2 454		2 454	200	2 000	2 000
F3	Cox's Bazar	16 085		2 681		2 681	400	2 000	3 000
F4	Sandwip	5 750		2 875		2 875	400	2 500	3 000
F5	Chittagong	63 615	445 795	10 603	37 150	47 753	35 200	12 500	-
	Sub-Total	122 765	445 795	22 378	37 150	59 528	36 700	22 000	10 000
H	NOAKHALI DISTRICT								
H1	Feni	46 655		7 776		7 776	3 500	4 000	3 000
H2	Chaumuhani	33 650		5 608		5 608	500	5 000	5 000
H3	Laksmipur	20 660		3 443		3 443	1 400	2 000	2 000
H4	Hatiya	8 270		4 135		4 135	400	3 500	3 000
	Sub-Total	109 235		20 962		20 962	5 800	14 500	13 000

TABLE 5-3 PDP WAREHOUSE STORAGE CAPACITIES FOR NATIONAL FERTILIZER STORAGE PLAN AND CONSTRUCTION

(Figures in Tons)

NFSP Ref.	Locations of PDP and Transit Points	1985 Sales Projections		1985 Storage Capacity Requirements			Existing Warehouse Storage Capacity	Schedule of Warehouse Capacities	
		Sales at PDP	Transit to Other PDPs	PDP Storage Capacity	Transit Storage Capacity	Total Storage Capacity		For NFSP, 1985	For Construction
I	COMILLA DISTRICT								
I1	Comilla	55 435		9 239		9 239	2 000	7 000	8 000
I2	Brahmanbaria	46 820		7 803		7 803	1 750	6 000	6 000
I3	Daudkandi	18 895		3 149		3 149	400	3 000	4 000
I4	Chandpur	27 505		4 584		4 584	1 500	3 000	6 000
I5	Laksam	34 215		5 703		5 703	1 000	5 000	5 000
	Sub-Total	182 870		30 478		30 478	6 650	24 000	29 000
J	SYLHET DISTRICT								
J1	Laskarpur	25 645		6 411		6 411		6 500	5 000
J2	Kulaura	7 010		1 753		1 753	400	1 000	2 000
J3	Azmiriganj	21 685		5 421		5 421	200	5 000	3 000
J4	Jamalganj	6 185		1 546		1 546	-	1 500	2 000
J5	Sunamganj	9 045		2 211		2 211	-	2 000	2 000
J6T	Chhatak	-	15 230	-	1 269	1 269	200	1 000	1 000
J7	Sylhet	13 310		3 328		3 328	1 000	2 500	2 000
J8	Srimangal	10 920		2 730		2 730	1 000	1 500	-
	Sub-Total	93 800	15 230	23 400	1 269	24 669	2 800	21 000	17 000
K	RAJSHAHI DISTRICT								
K1	Rajshahi	33 945		11 315		11 315	1 000	10 500	8 000
K2	Amnura	16 815		5 605		5 605	-	5 500	6 000
K3	Rohanpur	14 840		4 947		4 947	-	5 000	6 000
K4	Natore	27 930		9 310		9 310	200	9 000	8 000
K5	Atrai	15 680		5 227		5 227	500	4 500	3 000
	Sub-Total	109 210		36 404		36 404	1 700	34 500	31 000

TABLE 5-3 PDP WAREHOUSE STORAGE CAPACITIES FOR NATIONAL FERTILIZER STORAGE PLAN AND CONSTRUCTION

(Figures in Tons)

NFSP Ref.	Locations of PDP and Transit Points	1985 Sales Projections		1985 Storage Capacity Requirements			Existing Warehouse Storage Capacity	Schedule of Warehouse Capacities	
		Sales at PDP	Transit to Other PDPs	PDP Storage Capacity	Transit Storage Capacity	Total Storage Capacity		For NFSP, 1985	For Construction
R	PATUAKHALI DISTRICT								
R1	Patuakhali	22 580		5 645		5 645	2 500	3 000	3 000
R2	Barguna	17 560		4 390		4 390	200	4 000	3 000
	Sub-Total	40 140		10 035		10 035	2 700	7 000	6 000
S	JESSORE DISTRICT								
S1	Jessore	40 025		6 671		6 671	2 500	4 000	5 000
S2	Kaliganj	16 180		2 697		2 697	1 500	1 000	2 000
S3	Magura	15 700		2 617		2 617	200	2 500	3 000
S4	Narail	6 860		1 143		1 143	-	1 000	2 000
S5	Jhenaidah	20 090		3 348		3 348	500	3 000	3 000
	Sub-Total	98 855		16 476		16 476	4 700	11 500	15 000
T	KUSHTIA DISTRICT								
T1	Chuadanga	40 800		6 800		6 800	-	7 000	7 000
T2	Kushtia	39 200		6 533		6 533	2 000	4 000	3 000
	Sub-Total	80 000		13 333		13 333	2 000	11 000	10 000
	NATIONAL TOTAL	2030 000	2008 064	498 186	167 338	665 524	147 650	514 500	394 900

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TABLE 5-3 PDP WAREHOUSE STORAGE CAPACITIES FOR NATIONAL FERTILIZER STORAGE PLAN AND CONSTRUCTION

(Figures in Tons)

NFSP Ref.	Locations of PDP and Transit Points	1985 Sales Projections		1985 Storage Capacity Requirements			Existing Warehouse Storage Capacity	Schedule of Warehouse Capacities	
		Sales at PDP	Transit to Other PDPs	PDP Storage Capacity	Transit Storage Capacity	Total Storage Capacity		For NFSP, 1985	For Construction
O	DINAJPUR DISTRICT								
O1	Dinajpur	33 800		11 267		11 267	1 000	10 000	4 000
O2	Shibganj	40 300		13 433		13 433	2 000	11 500	10 000
O3	Panchagar	18 200		6 067		6 067	200	6 000	4 000
O4	Charkai	20 800		6 933		6 933	-	7 000	3 000
O5T	Parbatipur	-	116 100	-	9 675	9 675	1 000	8 500	12 000
	Sub-Total	113 100	116 100	37 700	9 675	47 375	4 200	43 000	33 000
P	KHULNA DISTRICT								
P1	Satkhira	21 810		3 635		3 635	500	3 000	3 000
P2	Bagerhat	5 640		940		940	400	500	2 000
P3T	Chalna	-	575 500	-	47 975	47 975	-	48 000	22 500
P4T	Shiromoni	-	483 857	-	40 321	40 321	7 500	33 000	13 400
P5	Roosevelt Jetty	6 630		1 105		1 105	3 000	-	-
P6	Rajapur	6 435		1 073		1 073	-	1 000	-
	Sub-Total	40 515	1059 557	6 753	88 296	95 049	11 400	85 500	40 900
Q	BARISAL DISTRICT								
Q1	Bhola	41 170		10 293		10 293	1 500	9 000	8 000
Q2	Kawkhali	14 850		3 713		3 713	-	3 500	4 000
Q3	Tushkhali	22 020		5 505		5 505	400	5 000	3 000
Q4	Barisal	20 100		5 025		5 025	4 500	500	3 000
	Sub-Total	98 140		24 536		24 536	6 400	18 000	18 000

TABLE 5-3 PDP WAREHOUSE STORAGE CAPACITIES FOR NATIONAL FERTILIZER STORAGE PLAN AND CONSTRUCTION

(Figures in Tons

NFSP Ref.	Locations of PDP and Transit Points	1985 Sales Projections		1985 Storage Capacity Requirements			Existing Warehouse Storage Capacity	Schedule of Warehouse Capacities	
		Sales at PDP	Transit to Other PDPs	PDP Storage Capacity	Transit Storage Capacity	Total Storage Capacity		For NFSP, 1985	For Construction
L	RANGPUR DISTRICT								
L1	Rangpur	42 075		14 025		14 025	3 700	10 500	10 000
L2	Lalmonirhat	-		-		-	(500)	-	-
L3	Saidpur	28 000		9 333		9 333	2 400	7 000	5 000
L4	Domar	19 150		6 383		6 383	-	6 500	4 000
L5	Kurigram	-		-		-	(2 200)	-	-
L6	Gaibandha	44 825		14 941		14 941	6 000	7 000	8 000
L7	Mahendranagar	47 850		15 950		15 950	2 700•	13 000	12 000
	Sub-Total	181 900		60 632		60 632	14 800	44 000	39 000
M	BOGRA DISTRICT								
M1	Santahar	59 760	164 380	19 920	13 698	33 618	5 400	28 000	16 000
M2	Joypurhat	26 360		8 787		8 787	2 400	6 500	5 000
M3	Bogra	66 995		22 332		22 332	2 500	20 000	12 000
	Sub-Total	153 115	164 380	51 039	13 698	64 737	10 300	54 500	33 000
N	PABNA DISTRICT								
N1	Muladuli	7 700	53 725	2 567	4 477	7 044	1 000	6 000	5 000
N2	Pabna	14 525		4 842		4 842	200	4 500	2 000
N3	Baghabari	20 775	23 640	6 925	1 970	8 895	2 000	7 000	4 000
N4	Sirajganj	19 035		6 345		6 345	500	6 000	6 000
N5	Ullapara	23 640		7 880		7 880	2 000	6 000	2 000
	Sub-Total	85 675	77 365	28 559	6 447	35 006	5 700	29 500	19 000

• Capacities of existing warehouses at Kurigram and Lalmonirhat have been considered for computation of storage needs at L7 Mahendranagar.

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NATIONAL FERTILIZER STORAGE PLAN

Comprises Of

VOLUME I	-	NARRATIVE
VOLUME II	-	TABLES
VOLUME III	-	EXHIBIT MAPS
VOLUME IV	-	LAND PLANS

Bangladesh Agricultural Development Corporation
USAID Fertilizer Distribution
Improvement Grant 388-0024

Engineering Consultancy Services Contract for Bagged Product Fertilizer Warehouses Project

NATIONAL FERTILIZER STORAGE PLAN

VOLUME III - EXHIBIT MAPS

JULY 1980

CONSULTING
ENGINEERS
INTERNATIONAL ENGINEERING COMPANY, INC.
A MORRISON-KNUDSEN COMPANY

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LIST OF EXHIBITS

Reference	Title	No.of Exhibits
2.1	SYSTEMS MODEL FOR NATIONAL FERTILIZER STORAGE PLAN	1
3.1.2	1985 THANAWISE FERTILIZER SALES PROJECTIONS	1
3.2.1	PDP LOCATIONS AND THANA SERVICE AREAS	1
3.3.1B 3.3.3C	WAREHOUSES SERVED BY RAIL AND ROAD	1
3.3.2C	RIVER DRAFT RESTRICTION MAP	1
	UREA MOVEMENT PROGRAM (DRY SEASON) -	1
4.3.1A	Urea from Ashuganj Urea Production Plant	
4.3.4	Imported Urea from Chittagong Port	
4.3.5	Imported Urea from Chalna Port	
	UREA MOVEMENT PROGRAM (DRY SEASON) -	1
4.3.2A	Urea from Ghorasal Urea Production Plant	
4.3.3A	Urea from Fenchuganj Urea Production Plant	
	UREA MOVEMENT PROGRAM (WET SEASON) -	1
4.3.1B	Urea from Ashuganj Urea Production Plant	
	UREA MOVEMENT PROGRAM (WET SEASON) -	1
4.3.2B	Urea from Ghorasal Urea Production Plant	
4.3.3B	Urea from Fenchuganj Urea Production Plant	
	TSP MOVEMENT PROGRAM (DRY SEASON) -	1
4.3.6A	TSP from Chittagong TSP Production Plant	
4.3.7A	Imported TSP from Chittagong Port	
4.3.8A	Imported TSP from Chalna Port	

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LIST OF EXHIBITS
(CONTINUED)

Reference	Title	No. of Exhibits
	TSP MOVEMENT PROGRAM (WET SEASON) -	1
4.3.6B	TSP from Chittagong TSP Production Plant	
4.3.7B	Imported TSP from Chittagong Port	
4.3.8B	Imported TSP from Chalna Port	
	MP MOVEMENT PROGRAM (DRY SEASON) -	1
4.3.9A	Imported MP from Chittagong Port	
4.3.10A	Imported MP from Chalna Port	
	MP MOVEMENT PROGRAM (WET SEASON) -	1
4.3.9B	Imported MP from Chittagong Port	
4.3.10B	Imported MP from Chalna Port	
5.1	INVENTORY OF EXISTING WAREHOUSES AT PDP LOCATIONS	1
	NEW WAREHOUSE STORAGE CAPACITY REQUIREMENTS 1985 -	1
5.5	Transit Warehouse Capacities	
5.6	PDP cum Transit Warehouse Capacities	
5.7	PDP Warehouse Capacities	

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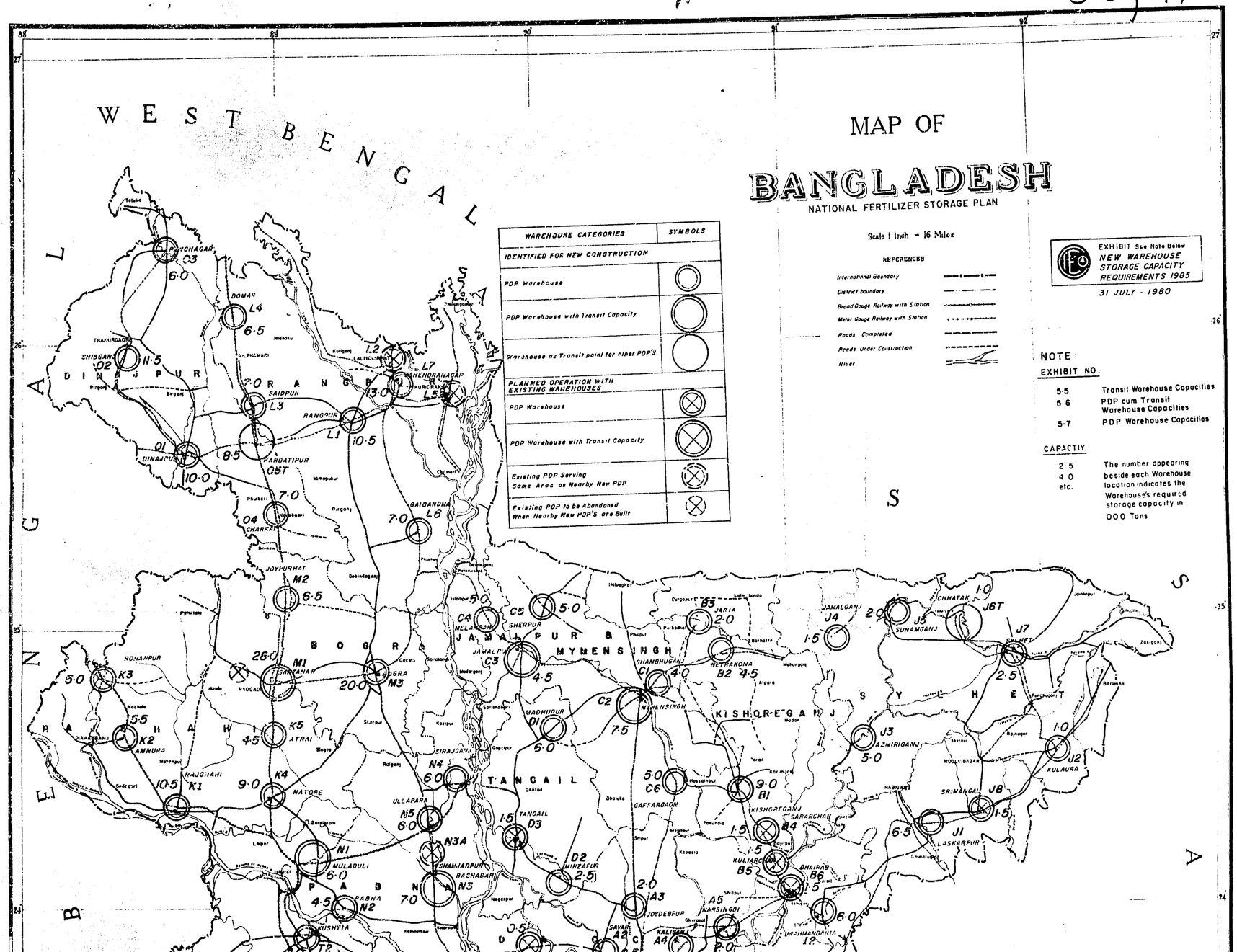
MAP OF BANGLADESH

NATIONAL FERTILIZER STORAGE PLAN

Scale 1 Inch = 16 Miles

EXHIBIT See Note Below
NEW WAREHOUSE STORAGE CAPACITY REQUIREMENTS 1985

31 JULY - 1980



WAREHOUSE CATEGORIES	SYMBOLS
IDENTIFIED FOR NEW CONSTRUCTION	
PDP Warehouse	
PDP Warehouse with Transit Capacity	
Warehouse as Transit point for other PDP'S	
PLANNED OPERATION WITH EXISTING WAREHOUSES	
PDP Warehouse	
PDP Warehouse with Transit Capacity	
Existing PDP Serving Same Area as Nearby New PDP	
Existing PDP to be Abandoned When Nearby New PDP'S are Built	

REFERENCES

- International Boundary
- District boundary
- Broad Gauge Railway with Station
- Meter Gauge Railway with Station
- Roads Completed
- Roads Under Construction
- River

NOTE:

EXHIBIT NO.

5·5	Transit Warehouse Capacities
5·6	PDP cum Transit Warehouse Capacities
5·7	PDP Warehouse Capacities

CAPACTIY

2·5	The number appearing beside each Warehouse location indicates the Warehouse's required storage capacity in 000 Tons
4·0	
etc.	

B

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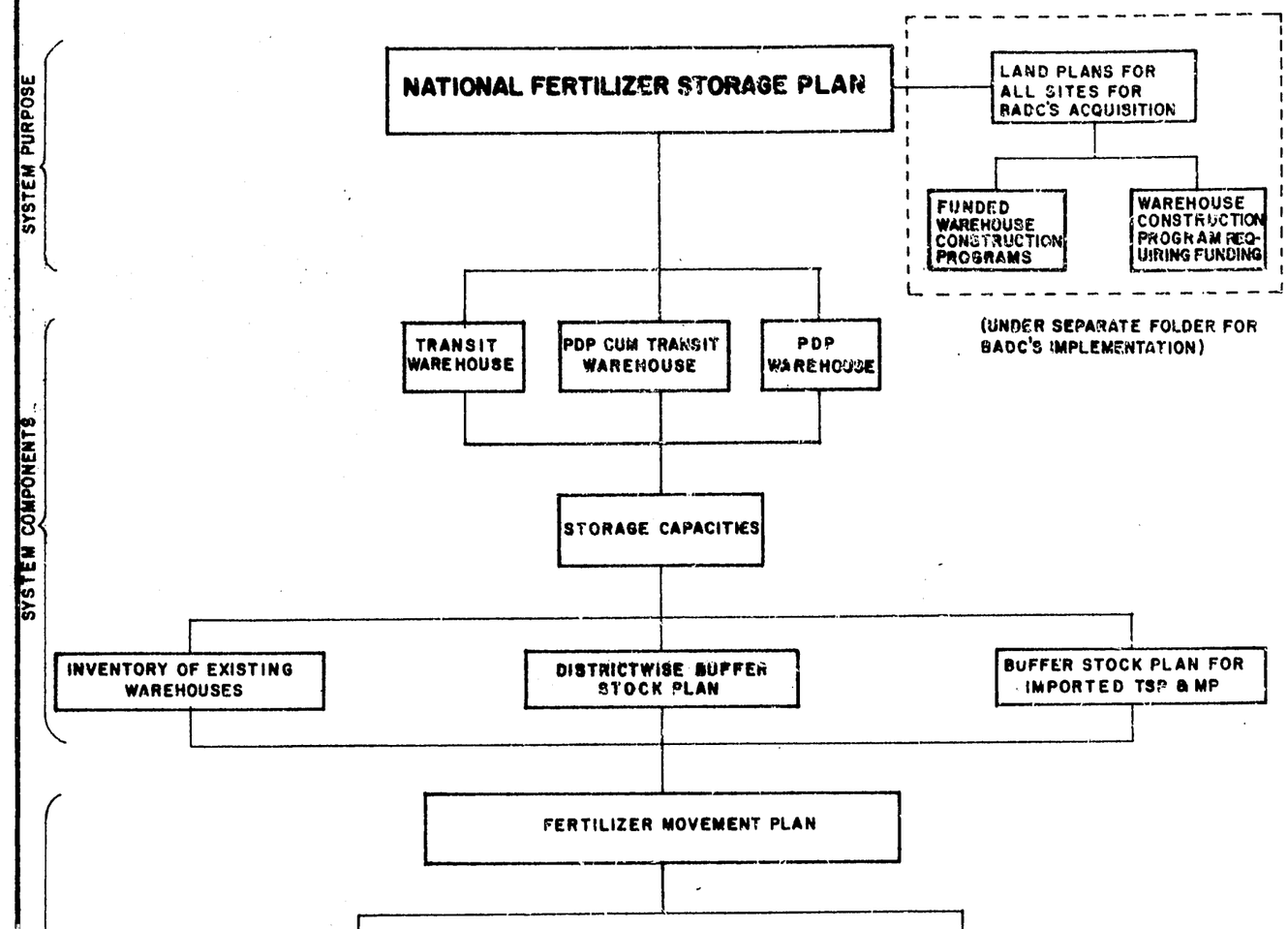
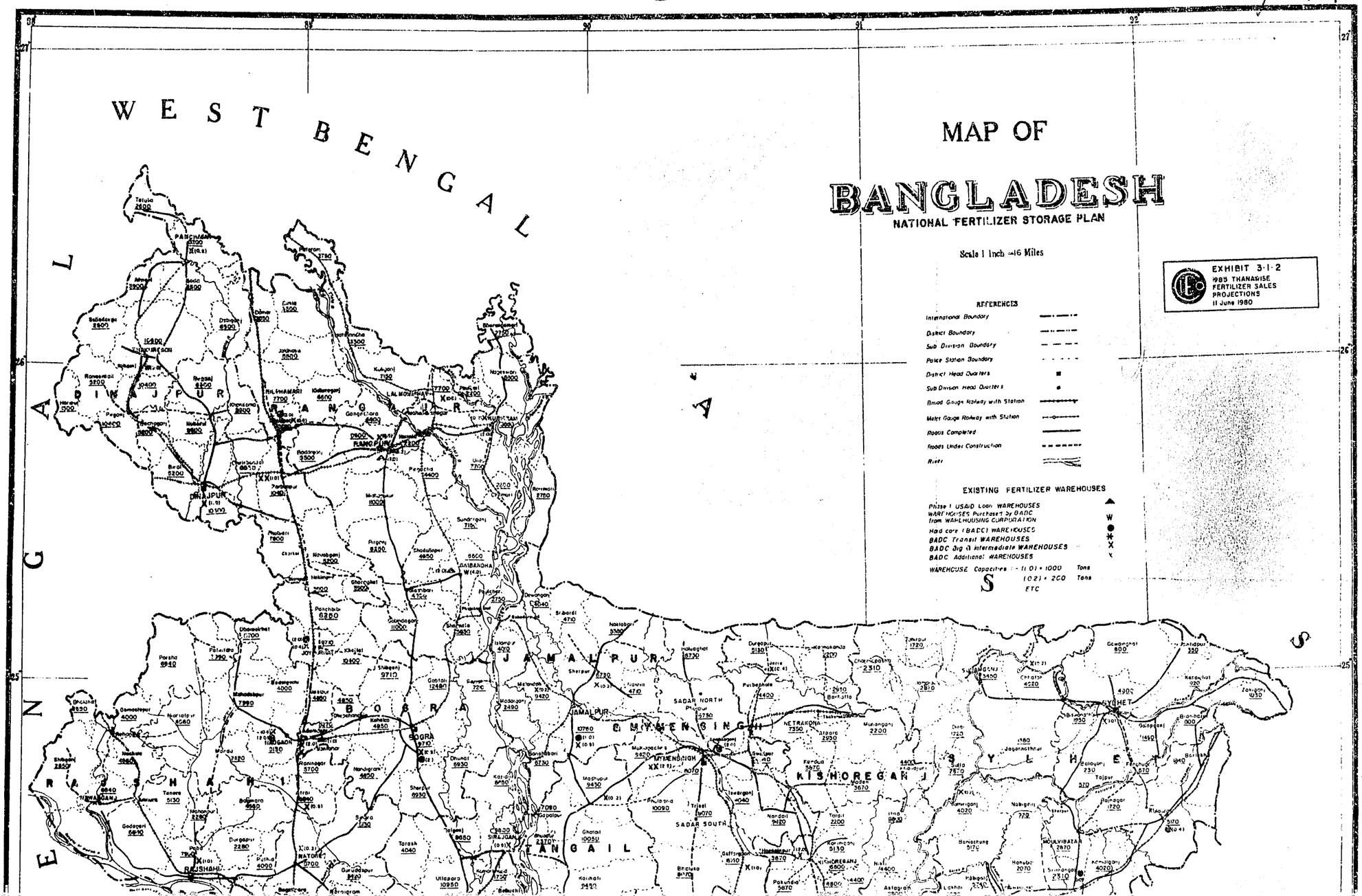
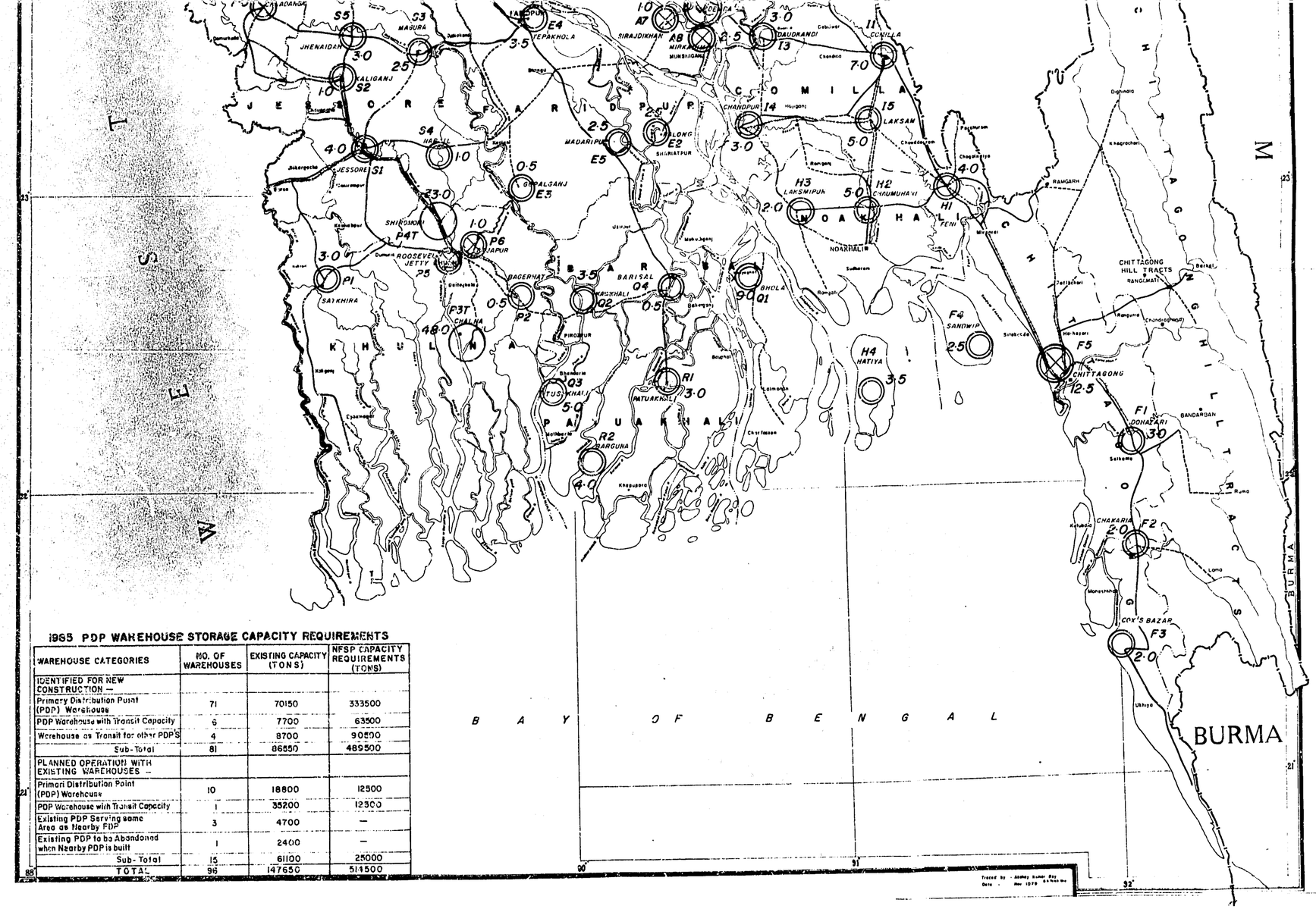
23 JULY - 1980



C

5 of 11


MAP OF
BANGLADESH
NATIONAL FERTILIZER STORAGE PLAN
Scale 1 Inch =16 Miles
EXHIBIT 3·1·2
1985 THANAWISE FERTILIZER SALES PROJECTIONS
11 June 1980
REFERENCES
International Boundary
District Boundary
Sub Division Boundary
Police Station Boundary
District Head Quarters
Sub Division Head Quarters
Broad Gauge Railway with Station
Metre Gauge Railway with Station
Roads Completed
Roads Under Construction
River
EXISTING FERTILIZER WAREHOUSES
Phase I USAID Loan WAREHOUSES
WAREHOUSES Purchased by BADC from WAREHOUSING CORPORATION
Hard core (BADC) WAREHOUSES
BADC Transit WAREHOUSES
BADC Big & Intermediate WAREHOUSES
BADC Additional WAREHOUSES
WAREHOUSE Capacities - (1.0) = 1000 Tons
(0.2) = 200 Tons
ETC
WEST BENGAL
INDIA
DINAJPUR
RANGPUR
BOGRA
JAMALPUR
MYMENSINGH
KISHOREGANJ
SYLHET
RAJSHAHI
TANGAIL
SADAR NORTH
SADAR SOUTH
NETRAKONA
SUNAMGANJ
MOULVIBAZAR
SIRAJGANJ
PABNA
DHAKA



1985 PDP WAREHOUSE STORAGE CAPACITY REQUIREMENTS

WAREHOUSE CATEGORIES	NO. OF WAREHOUSES	EXISTING CAPACITY (TONS)	NFSP CAPACITY REQUIREMENTS (TONS)
IDENTIFIED FOR NEW CONSTRUCTION —			
Primary Distribution Point (PDP) Warehouse	71	70150	333500
PDP Warehouse with Transit Capacity	6	7700	63500
Warehouse as Transit for other PDP'S	4	8700	90500
Sub-Total	81	86550	489500
PLANNED OPERATION WITH EXISTING WAREHOUSES —			
Primari Distribution Point (PDP) Warehouse	10	18800	12500
PDP Warehouse with Transit Capacity	1	35200	12500
Existing PDP Serving same Area as Nearby PDP	3	4700	—
Existing PDP to be Abandoned when Nearby PDP is built	1	2400	—
Sub-Total	15	61100	25000
TOTAL	96	147650	514500

1.0 2.8 2.5 3.2 2.2 3.6 2.0 1.1 4.0 1.8 1.25 1.4 1.6

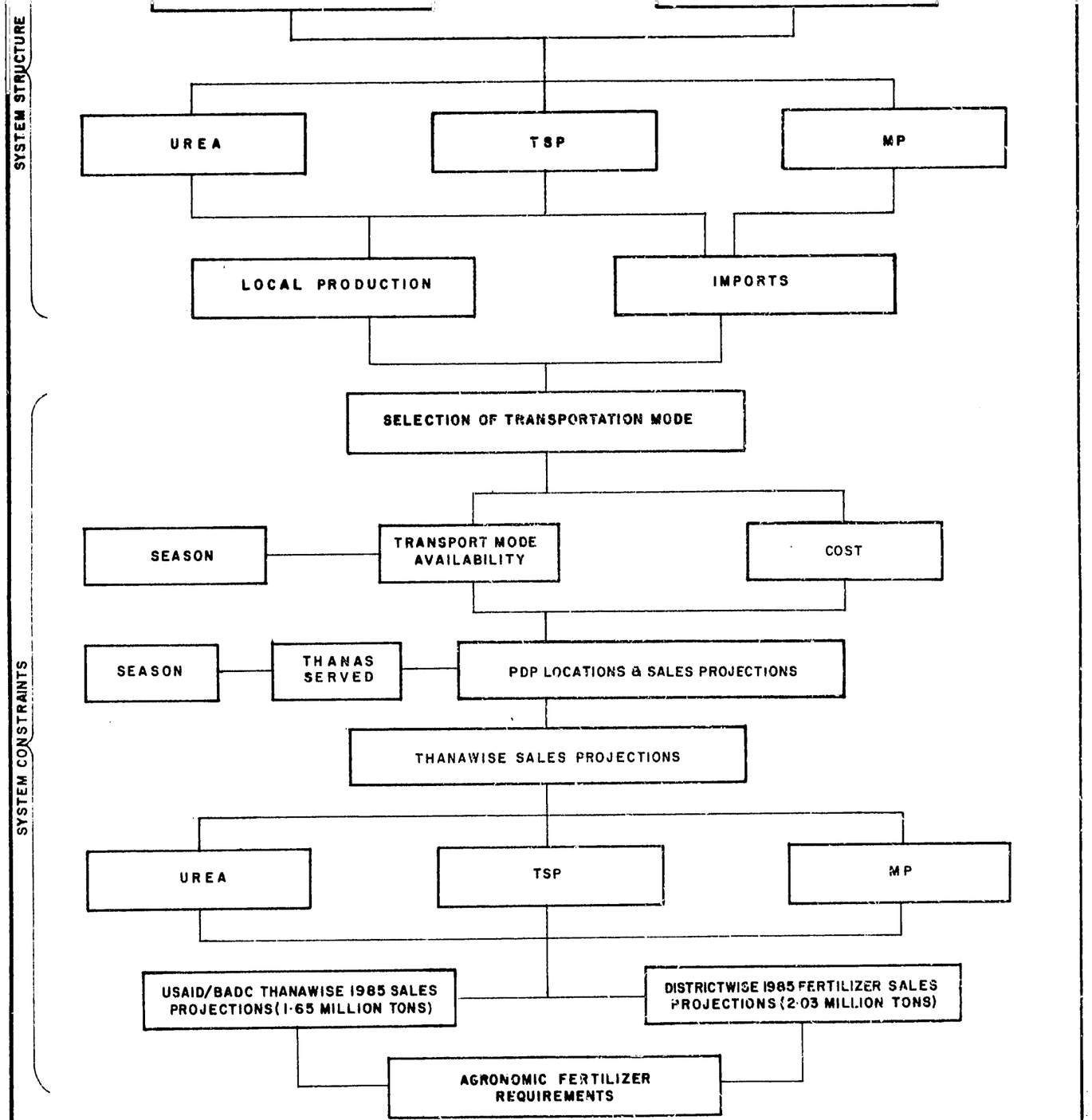
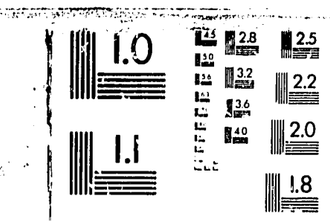
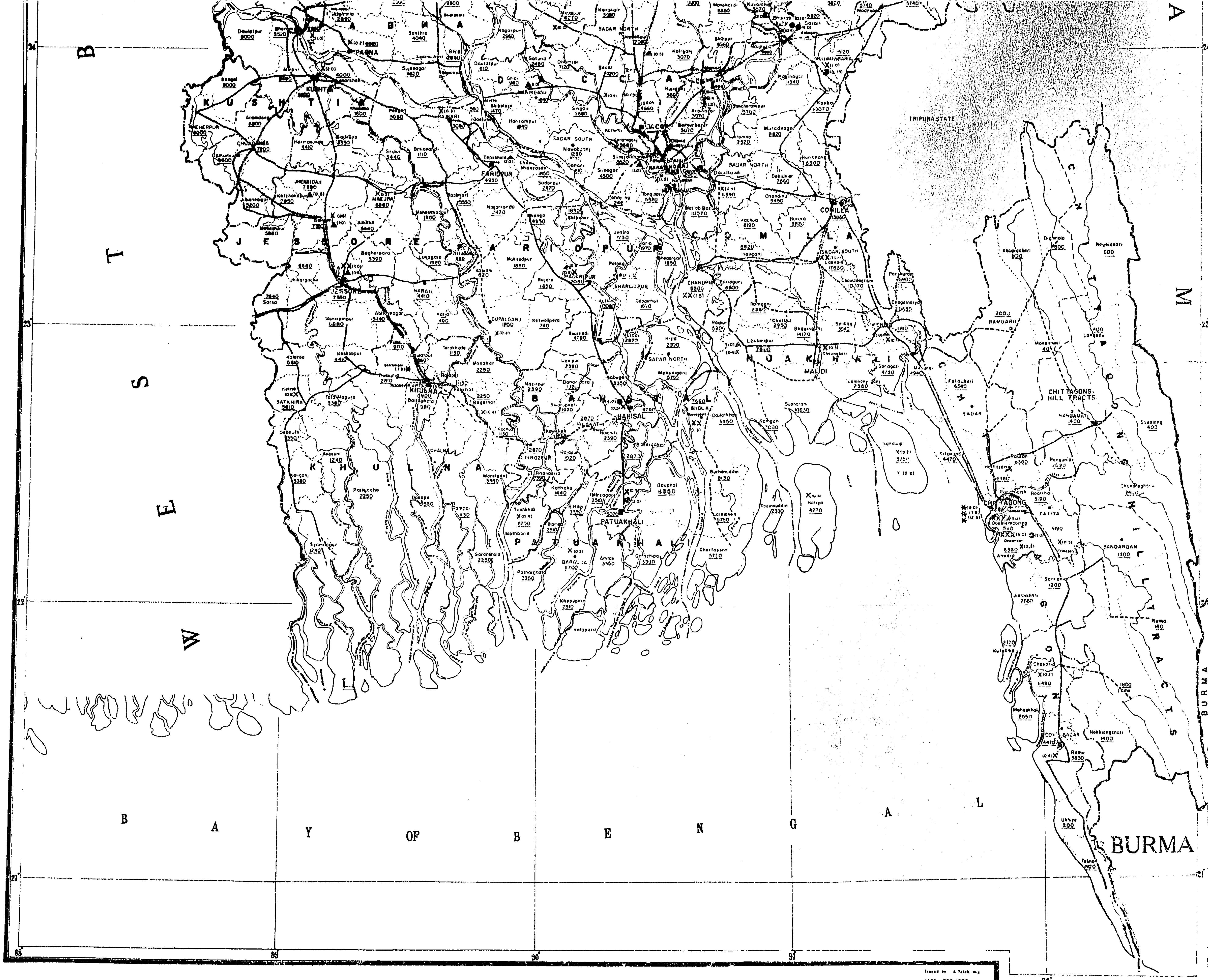


EXHIBIT 2·1
SYSTEMS MODEL FOR
NATIONAL FERTILIZER STORAGE PLAN





1.0 1.1 1.25 1.4 1.6 1.8 2.0 2.2 2.5 2.8 3.2 3.6 4.0

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MAP OF BANGLADESH

NATIONAL FERTILIZER STORAGE PLAN

Scale 1 Inch = 16 Miles

EXHIBIT 3·2·1
PDP LOCATIONS AND THANA SERVICE AREAS
31 JULY - 1980

REFERENCES

- International Boundary
- District Boundary
- Sub Division Boundary
- Police Station Boundary
- District Head Quarters
- Sub Division Head Quarters
- Broad Gauge Railway with Station
- Meter Gauge Railway with Station
- Roads Completed
- Roads Under Construction
- River

EXISTING FERTILIZER WAREHOUSES

- Phase I USAID Loan WAREHOUSES — W
- WAREHOUSES Purchased by BADC from WAREHOUSING CORPORATION — ●
- Hard core (BADC) WAREHOUSES — ✱
- BADC Transit WAREHOUSES — X
- BADC Big & Intermediate WAREHOUSES — X
- BADC Additional WAREHOUSES — x

WAREHOUSE Capacities — (10) = 1000 Tons; (02) = 200 Tons; ETC

PROPOSED FERTILIZER WAREHOUSE

- PDP
- TRANSIT POINT
- PDP-CUM-TRANSIT POINT

WEST BENGAL

TRIPURA STATE

BURMA

BAY OF BENGAL

Traced by A Talab Mia
DATE OCT 1979

E-

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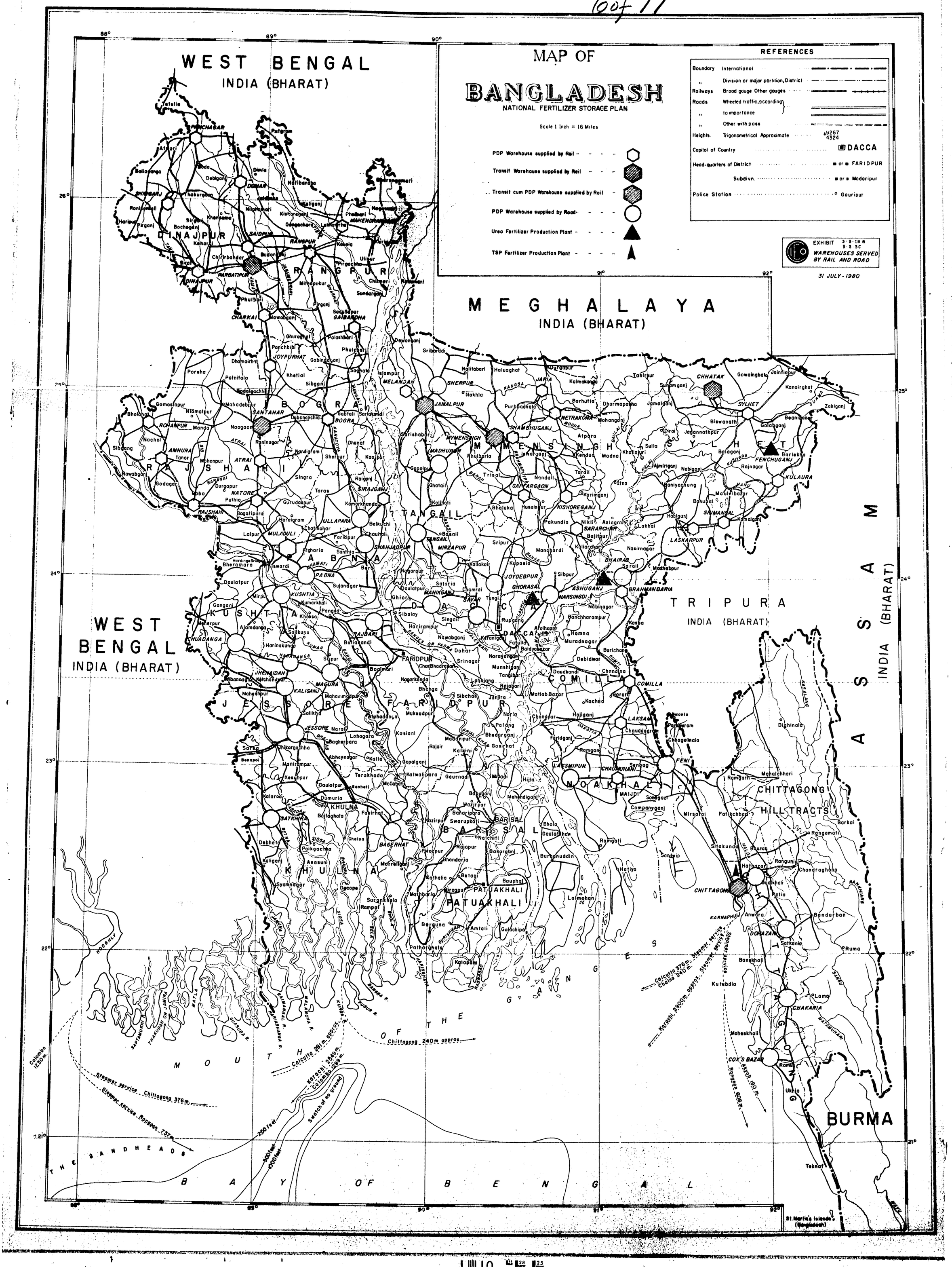
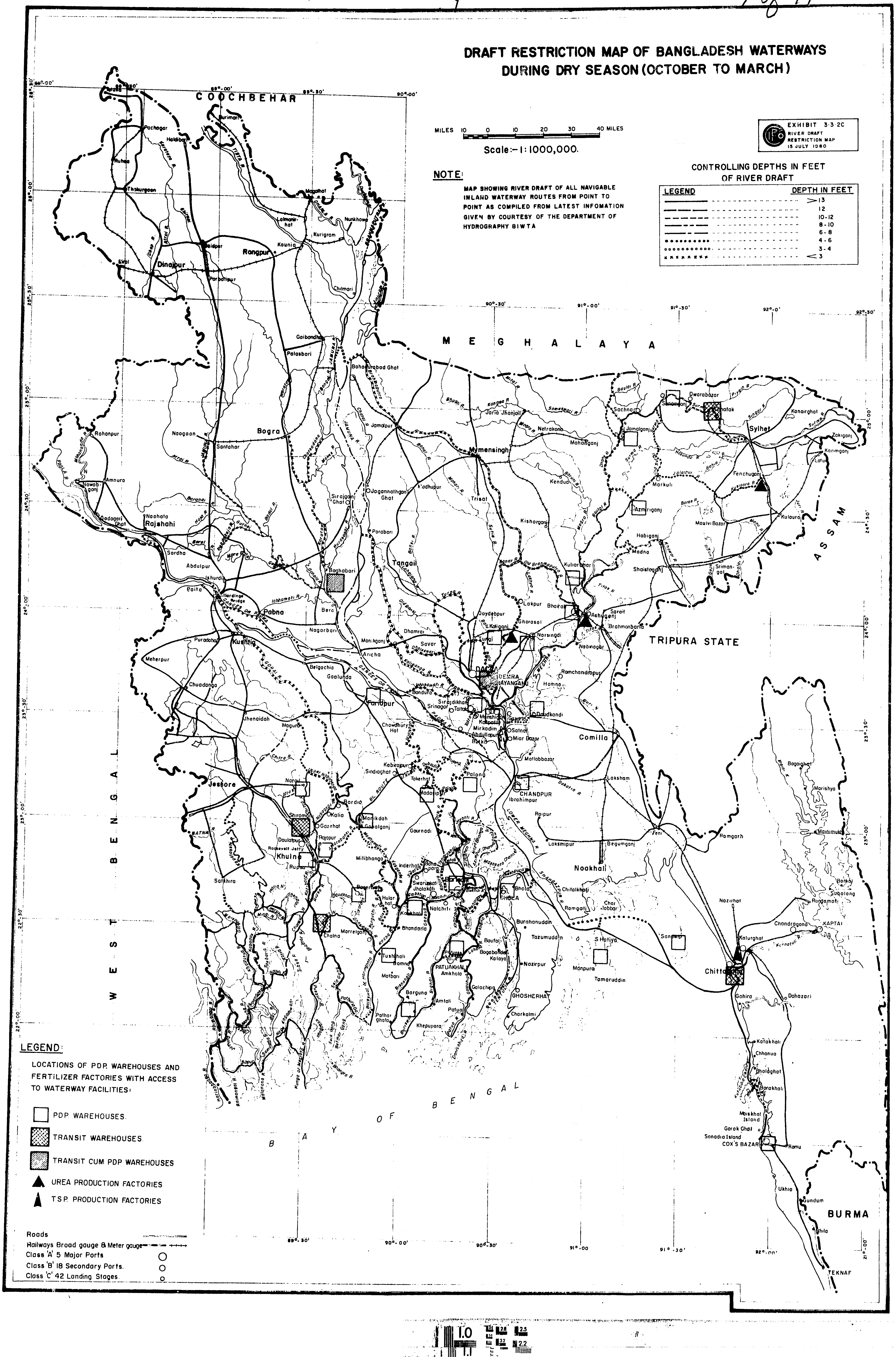

MAP OF
BANGLADESH
NATIONAL FERTILIZER STORAGE PLAN
Scale 1 Inch = 16 Miles
PDP Warehouse supplied by Rail
Transit Warehouse supplied by Rail
Transit cum PDP Warehouse supplied by Rail
PDP Warehouse supplied by Road
Urea Fertilizer Production Plant
TSP Fertilizer Production Plant
REFERENCES
Boundary International
" Division or major partition, District
Railways Broad gauge Other gauges
Roads Wheeled traffic, according to importance
" Other with pass
Heights Trigonometrical Approximate
Capital of Country DACCA
Head-quarters of District FARIDPUR
Subdivn. Madaripur
Police Station Gouripur
EXHIBIT 3·3·18 B 3·3·3C
WAREHOUSES SERVED BY RAIL AND ROAD
31 JULY-1980
WEST BENGAL
INDIA (BHARAT)
MEGHALAYA
INDIA (BHARAT)
TRIPURA
INDIA (BHARAT)
ASSAM
INDIA (BHARAT)
BURMA
THE MOUTH OF THE GANGES
THE SANDHEADS
BAY OF BENGAL
DINAJPUR
RANGPUR
BOGRA
RAJSHAHI
PABNA
KUSHTIA
JESSORE
FARIDPUR
DACCA
MYMENSINGH
SYLHET
COMILLA
NOAKHALI
KHULNA
BARISAL
PATUAKHALI
TANGAIL
CHITTAGONG
CHITTAGONG HILL TRACTS
Calcutta 281 m. approx.
Chittagong 240 m approx.
Karachi 2549 m.
Colombo 1299 m.
Colombo 1230 m.
Steamer service Chittagong 376 m.
Steamer service Rangoon 737 m.
Calcutta 376 m. Steamer service Chalna 240 m.
Karachi 2900 m approx. Steamer service
Steamer service
Rangoon 608 m.
Akyab 190 m.
Swatch of no ground
250 feet
500 feet
1000 feet
St. Martin's Islands (Bangladesh)

F


DRAFT RESTRICTION MAP OF BANGLADESH WATERWAYS
DURING DRY SEASON (OCTOBER TO MARCH)
MILES 10 0 10 20 30 40 MILES
Scale:- 1: 1000,000.
NOTE:
MAP SHOWING RIVER DRAFT OF ALL NAVIGABLE INLAND WATERWAY ROUTES FROM POINT TO POINT AS COMPILED FROM LATEST INFOMATION GIVEN BY COURTESY OF THE DEPARTMENT OF HYDROGRAPHY BIWTA
EXHIBIT 3-3-2C
RIVER DRAFT RESTRICTION MAP
15 JULY 1980
CONTROLLING DEPTHS IN FEET OF RIVER DRAFT
LEGEND
DEPTH IN FEET
>13
12
10-12
8-10
6-8
4-6
3-4
<3
COOCHBEHAR
MEGHALAYA
ASSAM
TRIPURA STATE
WEST BENGAL
BAY OF BENGAL
BURMA
Dinajpur
Rangpur
Bogra
Rajshahi
Pabna
Kushtia
Jessore
Khulna
Faridpur
Tangail
Mymensingh
Sylhet
DACCA
Comilla
Noakhali
Chittagong
COX'S BAZAR
TEKNAF
LEGEND:
LOCATIONS OF PDP. WAREHOUSES AND FERTILIZER FACTORIES WITH ACCESS TO WATERWAY FACILITIES:
PDP WAREHOUSES.
TRANSIT WAREHOUSES
TRANSIT CUM PDP WAREHOUSES
UREA PRODUCTION FACTORIES
TSP. PRODUCTION FACTORIES
Roads
Railways Broad gauge & Meter gauge
Class 'A' 5 Major Ports
Class 'B' 18 Secondary Ports.
Class 'C' 42 Landing Stages.

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MAP OF BANGLADESH

NATIONAL FERTILIZER STORAGE PLAN

Scale 1 Inch = 16 Miles

EXHIBIT See Note Below
UREA MOVEMENT PROGRAM FROM ASHUGANJ AND IMPORT SOURCES (DRY SEASON)

30 JULY - 1980

LEGEND FOR FERTILIZER MOVEMENTS BY MODES

- Rails (Meter Gauge)
- Rails (Broad Gauge)
- Trucks
- Barges
- Country Boats/Small Cargo Launch

LEGEND FOR MAIN MODE OF DELIVERY OF FERTILIZERS

- By Rail to PDP Warehouses
- By Rail with Transit for other PDP's
- By Rail to Transit Warehouses
- By Trucks to PDP Warehouses
- By Barges to PDP Warehouses
- By Barges with Transit for other PDP's
- By Barges or Ships to Transit Warehouses

REFERENCES

- International Boundary
- District boundary
- Broad Gauge Railway with Station
- Meter Gauge Railway with Station
- Roads Completed
- Roads Under Construction
- River
- District Head Quarters

BADC'S EXISTING FERTILIZER WAREHOUSES

- Phase I USAID Loan WAREHOUSES
- WAREHOUSES Purchased by BADC from WAREHOUSING CORPORATION
- Hard core (BADC) WAREHOUSES
- BADC Transit WAREHOUSES
- BADC Big & Intermediate WAREHOUSES
- BADC Additional WAREHOUSES

WAREHOUSE Capacities — (1.0) = 1000 Tons; (0.2) = 200 Tons; ETC.

Urea Production Plant at Feschuganj (75,000 Tons per Year)
" " " Ashuganj (475,000 Tons per Year)
" " " Ghorasal (350,000 Tons per Year)

NOTE

Exhibit No.	Urea Movement Program (Dry Season) for
4·3·1 A	Urea from Ashuganj Urea Plant
4·3·4	Imported Urea from Chittagong Port
4·3·5	Imported Urea from Chalna Port

IMPORTS 140000 TONS UREA

57 % TO CHALNA = 79800 TONS

UNLOAD 43 % = 60200 TONS

MODE OF MOVEMENT	DESPATCH FROM											
	CTG. PORT		CHALNA PORT		TOTAL IMPORTS		ASHUGANJ		SHIROMONI (IN TRANSIT)		PARBATIPUR (BG TRANSFER)	
	TONS	PERCENT	TONS	PERCENT	TONS	PERCENT	TONS	PERCENT	TONS	PERCENT	TONS	PERCENT
BY RAIL	15072	25·04	0	0	15072	10·77	92282*	38·86	0	0	11241	100·00
BY ROAD	37593	62·45	0	0	37593	26·85	13008	5·48	49262	100·00	0	0
BY RIVER	7535	12·51	79800	100·00	87335	62·38	132210	55·66	0	0	0	0
TOTAL	60200	100·00	79800	100·00	140000	100·00	237500	100·00	49262	100·00	11241	100·00

* RAIL MOVEMENTS BY UNIT TRAIN

NOTE:
BARISAL
Supplied from Ashuganj 5007 Tons
Supplied from Chalna Port (Imports) 2617 Tons
BY BARGE TO BARISAL Total = 7624 Tons

Deficits at PDP	Tonnage	Supplied during Wet Season from
Feni	15164 Tons	Ashuganj
Laksam	3473 Tons	Ashuganj
Laksmipur	5500 Tons	Fenchuganj
Sub-Total	24137 Tons	
Kushtia	11738 Tons	Ghorasal
Total	35875 Tons	

Partial Deliveries to	Tonnage	Balance from	Balance Tonnage
Gaibandha	2113 Tons	Ghorasal	10090 Tons
Comilla	9040 "	Ghorasal	3364 "
Laksam	6032 "	(Deficit)	3473 "

Traced by :- Ambey Kumar Roy
Date :- Nov. 1979

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8 of 11

MAP OF BANGLADESH

NATIONAL FERTILIZER STORAGE PLAN

Scale 1 Inch = 16 Miles

EXHIBIT NO. 4-3-18
UREA MOVEMENT PROGRAM FROM ASHUGANJ UREA PRODUCTION PLANT (WET SEASON)

30 JULY - 1980

LEGEND FOR FERTILIZER MOVEMENTS BY MODES

- Rails (Meter Gauge)
- Rails (Broad Gauge)
- Trucks
- Barges
- Country Boats/Small Cargo Launch

LEGEND FOR MAIN MODE OF DELIVERY OF FERTILIZERS

- By Rail to PDP Warehouses
- By Rail with Transit for other PDP'S
- By Rail to Transit Warehouses
- By Trucks to PDP Warehouses
- By Barges to PDP Warehouses
- By Barges with Transit for other PDP'S
- By Barges or Ships to Transit Warehouses

REFERENCES

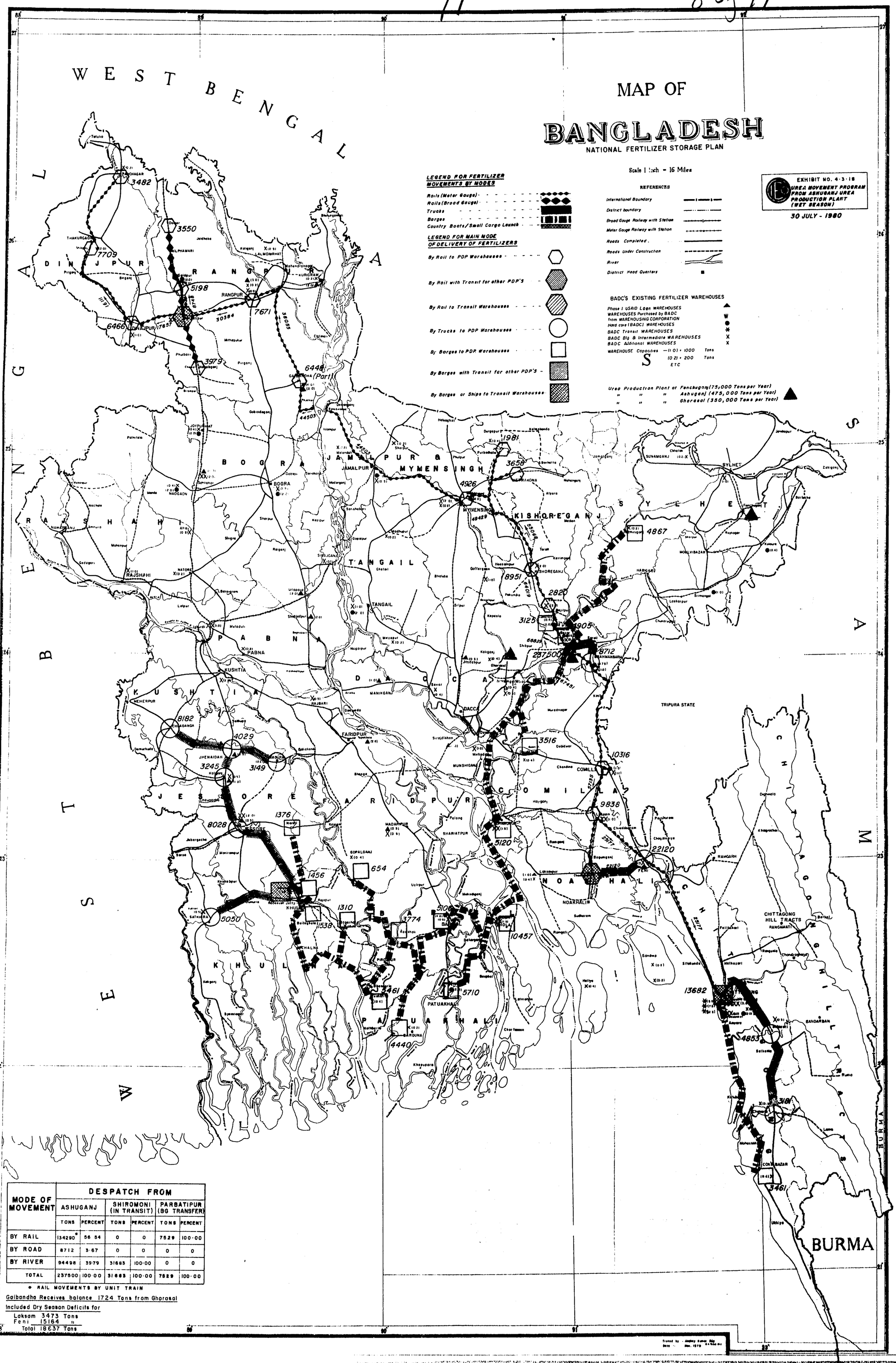
- International Boundary
- District boundary
- Broad Gauge Railway with Station
- Meter Gauge Railway with Station
- Roads Completed
- Roads Under Construction
- River
- District Head Quarters

BADC'S EXISTING FERTILIZER WAREHOUSES

- Phase I USAID Loan WAREHOUSES
- WAREHOUSES Purchased by BADC from WAREHOUSING CORPORATION
- Hard core (BADC) WAREHOUSES
- BADC Transit WAREHOUSES
- BADC Big & Intermediate WAREHOUSES
- BADC Additional WAREHOUSES

WAREHOUSE Capacities — (1.0) = 1000 Tons; (0.2) = 200 Tons; S ETC

Urea Production Plant at Fenchuganj (75,000 Tons per Year)
" " " Ashuganj (475,000 Tons per Year)
" " " Ghorasal (350,000 Tons per Year)



MODE OF MOVEMENT	DESPATCH FROM					
	ASHUGANJ		SHIROMONI (IN TRANSIT)		PARBATIPUR (BG TRANSFER)	
	TONS	PERCENT	TONS	PERCENT	TONS	PERCENT
BY RAIL	134290*	56.54	0	0	7529	100.00
BY ROAD	8712	3.67	0	0	0	0
BY RIVER	94498	39.79	31683	100.00	0	0
TOTAL	237500	100.00	31683	100.00	7529	100.00

* RAIL MOVEMENTS BY UNIT TRAIN

Gaibandha Receives balance 1724 Tons from Ghorasal

Included Dry Season Deficits for
Laksam 3473 Tons
Feni 15164 "
Total 18637 Tons

Traced by : Anjoy Kumar Roy
Date : Nov. 1979

MAP OF BANGLADESH

NATIONAL FERTILIZER STORAGE PLAN

Scale 1 Inch = 16 Miles

LEGEND FOR FERTILIZER MOVEMENTS BY MODES

- Rails (Meter Gauge)
- Rails (Broad Gauge)
- Trucks
- Barges
- Country Boats/Small Cargo Launch

LEGEND FOR MAIN MODE OF DELIVERY OF FERTILIZERS

- By Rail to PDP Warehouses
- By Rail with Transit for other PDP'S
- By Rail to Transit Warehouses
- By Trucks to PDP Warehouses
- By Barges to PDP Warehouses
- By Barges With Transit for other PDP'S
- By Barges or Ships to Transit Warehouses

REFERENCES

- International Boundary
- District boundary
- Broad Gauge Railway with Station
- Meter Gauge Railway with Station
- Roads Completed
- Roads Under Construction
- River
- District Head Quarters

BADC'S EXISTING FERTILIZER WAREHOUSES

- Phase I USAID Lease WAREHOUSES
- WAREHOUSES Purchased by BADC from WAREHOUSING CORPORATION
- Hard core (BADC) WAREHOUSES
- BADC Transit WAREHOUSES
- BADC Big B Intermediate WAREHOUSES
- BADC Additional WAREHOUSES
- WAREHOUSE Capacities —(1.0) = 1000 Tons; (0.2) = 200 Tons; ETC.

Urea Production Plant at Fenchuganj (78,000 Tons per Year)
" " " Ashuganj (475,000 Tons per Year)
" " " Ghorasal (350,000 Tons per Year)

EXHIBIT See Note Below
UREA MOVEMENT PROGRAM FROM GHORASAL AND FENCHUGANJ UREA PRODUCTION PLANT (DRY SEASON)
30 JULY - 1980

NOTE

Exhibit No.	Urea Movement Program (Dry Season) for
4·3·2A	Urea from Ghorasal Urea Plant
4·3·3A	Urea from Fenchuganj Urea Plant

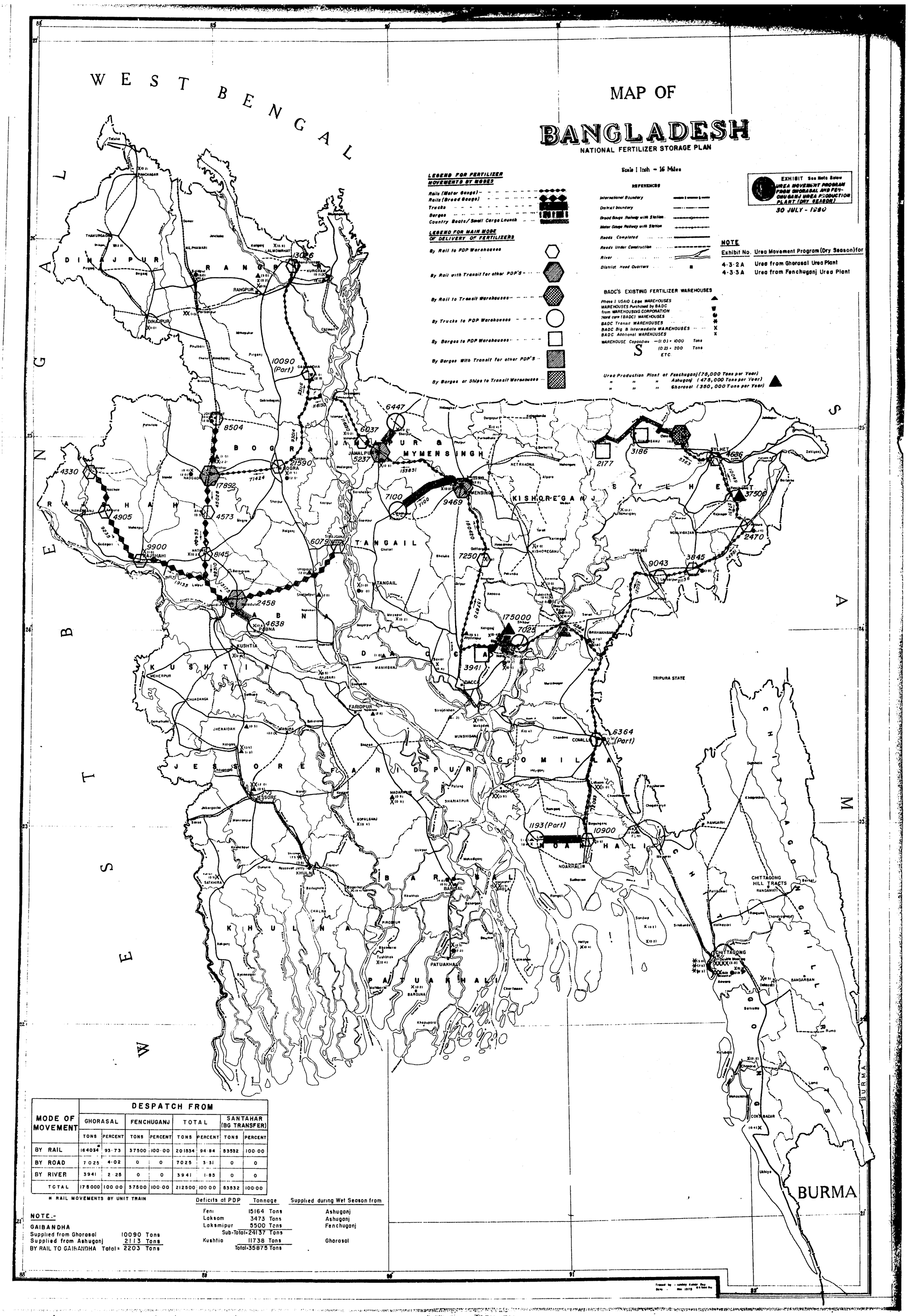
MODE OF MOVEMENT	DESPATCH FROM							
	GHORASAL		FENCHUGANJ		TOTAL		SANTAHAR (BG TRANSFER)	
	TONS	PERCENT	TONS	PERCENT	TONS	PERCENT	TONS	PERCENT
BY RAIL	164034*	93·73	37500	100·00	201534	94·84	53532	100·00
BY ROAD	7025	4·02	0	0	7025	3·31	0	0
BY RIVER	3941	2·25	0	0	3941	1·85	0	0
TOTAL	175000	100·00	37500	100·00	212500	100·00	53532	100·00

* RAIL MOVEMENTS BY UNIT TRAIN

NOTE.-

GAIBANDHA
Supplied from Ghorasal 10090 Tons
Supplied from Ashuganj 2113 Tons
BY RAIL TO GAIBANDHA Total = 2203 Tons

Deficits at PDP	Tonnage	Supplied during Wet Season from
Feni	15164 Tons	Ashuganj
Laksam	3473 Tons	Ashuganj
Laksmipur	5500 Tons	Fenchuganj
Sub-Total	24137 Tons	
Kushtia	11738 Tons	Ghorasal
Total	35875 Tons	



MAP OF BANGLADESH

NATIONAL FERTILIZER STORAGE PLAN

Scale 1 Inch = 16 Miles

EXHIBIT See Note Below

UREA MOVEMENT PROGRAM FROM FENCHUGANJ AND GHORASAL UREA PRODUCTION PLANT (WET SEASON)

30 JULY–1980

LEGEND FOR FERTILIZER MOVEMENTS BY MODES

- Rails (Meter Gauge)
- Rails (Broad Gauge)
- Trucks
- Barges
- Country Boats/Small Cargo Launch

LEGEND FOR MAIN MODE OF DELIVERY OF FERTILIZER

- By Rail to PDP Warehouses
- By Rail with Transit for other PDP'S
- By Rail to Transit Warehouses
- By Trucks to PDP Warehouses
- By Barges to PDP. Warehouses
- By Barges with Transit for other PDP'S
- By Barges or Ships to Transit Warehouses

REFERENCES

- International Boundary
- District Boundary
- Broad Gauge Railway with Station
- Meter Gauge Railway with Station
- Roads Completed
- Roads Under Construction
- River
- District Head Quarters

BADC'S EXISTING FERTILIZER WAREHOUSES

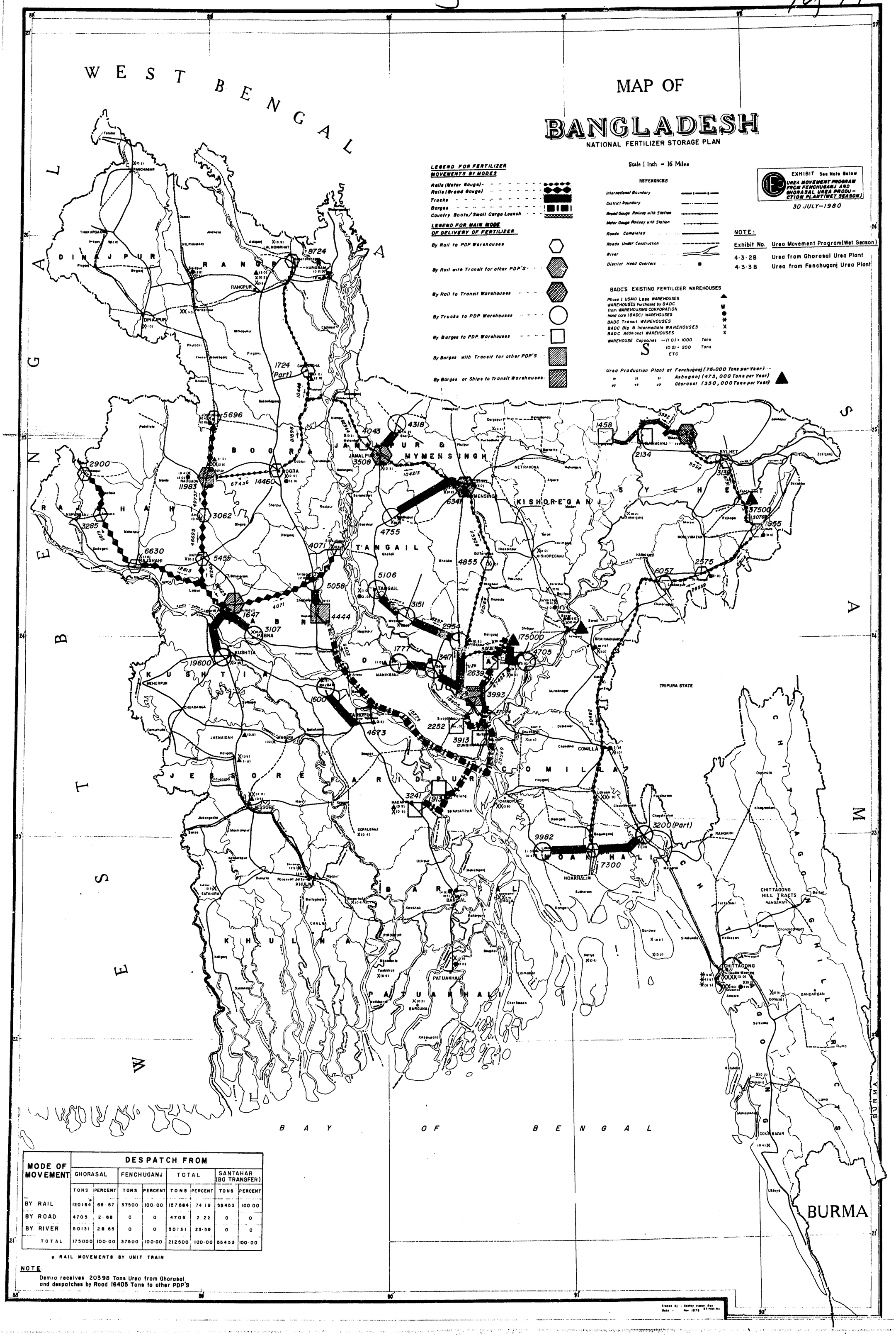
- Phase I USAID Loan WAREHOUSES
- WAREHOUSES Purchased by BADC from WAREHOUSING CORPORATION
- Hard core (BADC) WAREHOUSES
- BADC Transit WAREHOUSES
- BADC Big & Intermediate WAREHOUSES
- BADC Additional WAREHOUSES

WAREHOUSE Capacities —(1 0) = 1000 Tons; (0 2) = 200 Tons; ETC

Urea Production Plant at Fenchuganj (75,000 Tons per Year)
" " " Ashuganj (475,000 Tons per Year)
" " " Ghorasal (350,000 Tons per Year)

NOTE:

Exhibit No.	Urea Movement Program (Wet Season)
4·3·2B	Urea from Ghorasal Urea Plant
4·3·3B	Urea from Fenchuganj Urea Plant



MODE OF MOVEMENT	DESPATCH FROM							
	GHORASAL		FENCHUGANJ		TOTAL		SANTAHAR (BG TRANSFER)	
	TONS	PERCENT	TONS	PERCENT	TONS	PERCENT	TONS	PERCENT
BY RAIL	120164*	68 67	37500	100·00	157664	74 19	55453	100 00
BY ROAD	4705	2·68	0	0	4705	2 22	0	0
BY RIVER	50131	28 65	0	0	50131	23·59	0	0
TOTAL	175000	100·00	37500	100·00	212500	100·00	55453	100·00

* RAIL MOVEMENTS BY UNIT TRAIN

NOTE:

Demra receives 20398 Tons Urea from Ghorasal and despatches by Road 16405 Tons to other PDP'S

Traced by : Asoke Kumar Roy
Date : Nov 1979

MAP OF BANGLADESH

NATIONAL FERTILIZER STORAGE PLAN

Scale 1 Inch = 16 Miles

EXHIBIT See Note Below
TSP MOVEMENT PROGRAM (DRY SEASON)

30 JULY - 1980

LEGEND FOR FERTILIZER MOVEMENTS BY MODES

- Rails (Meter Gauge)
- Rails (Broad Gauge)
- Trucks
- Barges
- Country Boats/Small Cargo Launch

LEGEND FOR MAIN MODE OF DELIVERY OF FERTILIZERS

- By Rail to PDP Warehouses
- By Rail with Transit for other PDP S
- By Rail to Transit Warehouses
- By Trucks to PDP Warehouses
- By Barges to PDP Warehouses
- By Barges with Transit for other PDP'S
- By Barges or Ships to Transit Warehouses

REFERENCES

- International Boundary
- District boundary
- Broad Gauge Railway with Station
- Meter Gauge Railway with Station
- Roads Completed
- Roads Under Construction
- River
- District Head Quarters

BADC'S EXISTING FERTILIZER WAREHOUSES

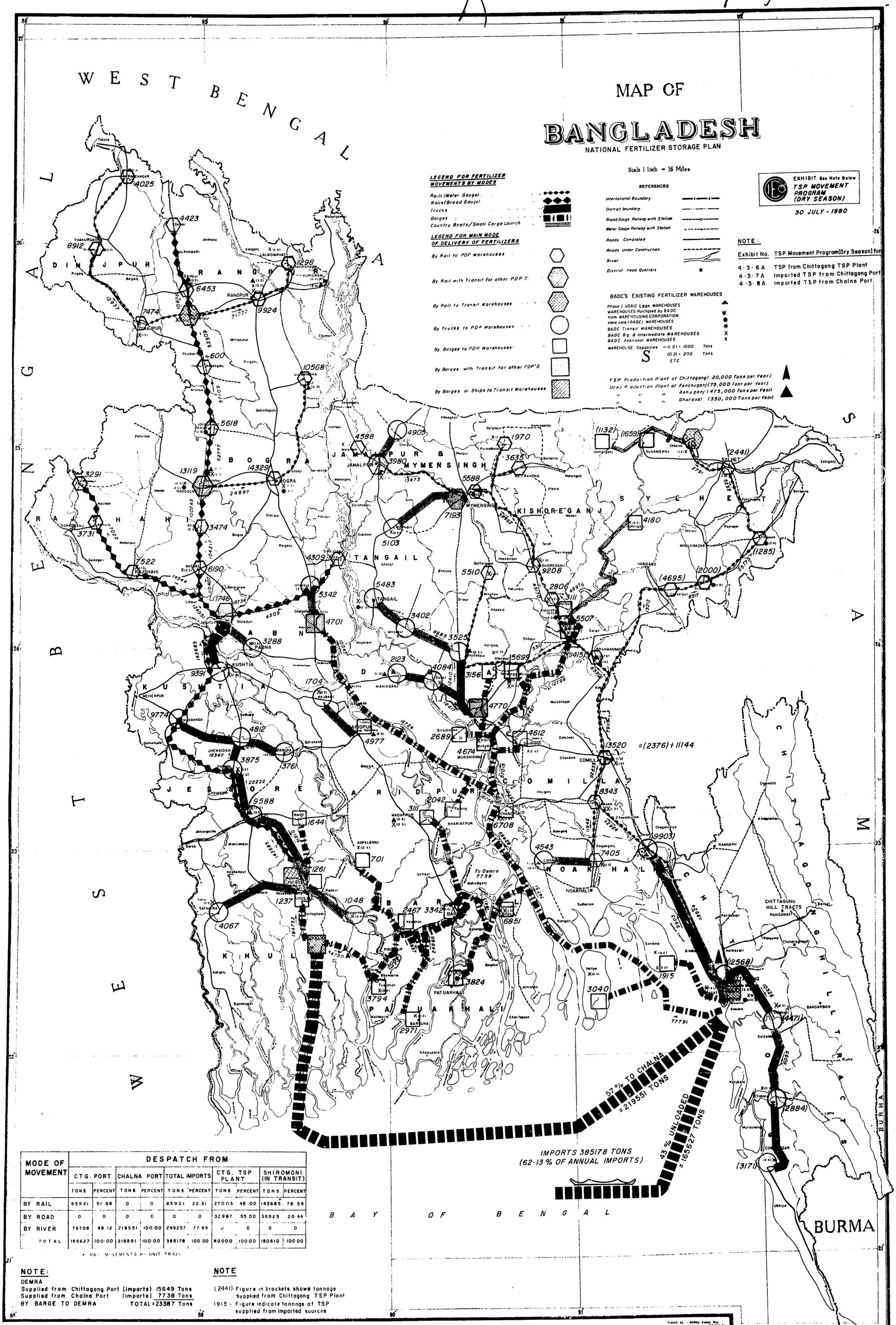
- Phase I USAID Loan WAREHOUSES
- WAREHOUSES Purchased by BADC from WAREHOUSING CORPORATION
- Hard core (BADC) WAREHOUSES
- BADC Transit WAREHOUSES
- BADC Big B Intermediate WAREHOUSES
- BADC Additional WAREHOUSES

WAREHOUSE Capacities — (1 0) = 1000 Tons; (0 2) = 200 Tons; ETC

TSP Production Plant at Chittagong (20,000 Tons per Year)
Urea Production Plant at Fenchuganj (75,000 Tons per Year)
" " " Ashuganj (475,000 Tons per Year)
" " " Ghorasal (350,000 Tons per Year)

NOTE:

Exhibit No.	TSP Movement Program (Dry Season) for
4·3·6A	TSP from Chittagong TSP Plant
4·3·7A	Imported TSP from Chittagong Port
4·3·8A	Imported TSP from Chalna Port.



MODE OF MOVEMENT	DESPATCH FROM									
	CTG. PORT		CHALNA PORT		TOTAL IMPORTS		CTG. TSP PLANT		SHIROMONI (IN TRANSIT)	
	TONS	PERCENT	TONS	PERCENT	TONS	PERCENT	TONS	PERCENT	TONS	PERCENT
BY RAIL	85921	51·88	0	0	85921	22·31	27003	45·00	143685	79·56
BY ROAD	0	0	0	0	0	0	32997	55·00	36925	20·44
BY RIVER	79706	48·12	219551	100·00	299257	77·69	0	0	0	0
TOTAL	165627	100·00	219551	100·00	385178	100·00	60000	100·00	180610	100·00

* RAIL MOVEMENTS BY UNIT TRAIN

NOTE:

DEMRA
Supplied from Chittagong Port (Imports) 15649 Tons
Supplied from Chalna Port (Imports) 7738 Tons
BY BARGE TO DEMRA TOTAL = 23387 Tons

NOTE

(2441) - Figure in brackets shows tonnage supplied from Chittagong TSP Plant
1915 - Figure indicate tonnage of TSP supplied from imported sources

Traced by - Abhay Kumar Roy
Date - Nov 1979

MAP OF BANGLADESH

NATIONAL FERTILIZER STORAGE PLAN

Scale 1 Inch = 16 Miles

EXHIBIT See Note Below
TSP MOVEMENT PROGRAM (WET SEASON)
30 JULY - 1980

Exhibit No	TSP Momement Program (Wet Season) for
4·3·6B	TSP from Chittagong TSP Plant
4·3·7B	Imported TSP from Chittagong Port
4·3·8B	Imported TSP from Chalna Port

LEGEND FOR FERTILIZER MOVEMENTS BY MODES

- Rail (Meter Gauge)
- Rail (Broad Gauge)
- Trucks
- Barges
- Country Boats/Small Cargo Launch

LEGEND FOR MAIN MODE OF DELIVERY OF FERTILIZERS

- By Rail to PDP Warehouses
- By Rail with Transit for other PDP'S
- By Rail to Transit Warehouses
- By Trucks to PDP Warehouses
- By Barges to PDP Warehouses
- By Barges with Transit for other PDP'S
- By Barges or Ships to Transit Warehouse

REFERENCES

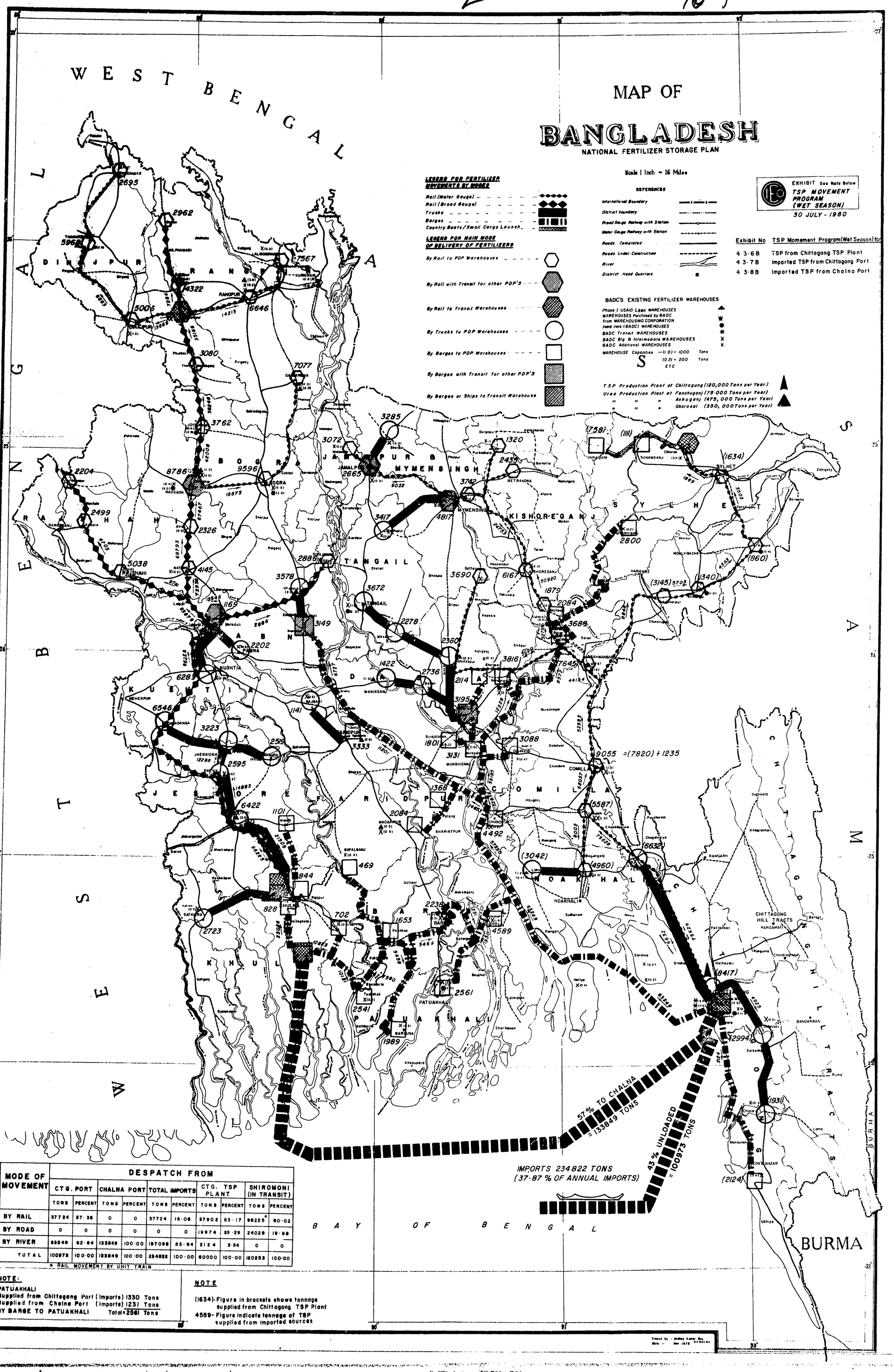
- International Boundary
- District boundary
- Broad Gauge Railway with Station
- Meter Gauge Railway with Station
- Roads Completed
- Roads Under Construction
- River
- District Head Quarters

BADC'S EXISTING FERTILIZER WAREHOUSES

- Phase I USAID Loan WAREHOUSES
- WAREHOUSES Purchased by BADC from WAREHOUSING CORPORATION — W
- Hard core (BADC) WAREHOUSES
- BADC Transit WAREHOUSES
- BADC Big & Intermediate WAREHOUSES — X
- BADC Additional WAREHOUSES — x

WAREHOUSE Capacities — (1 0) = 1000 Tons; (0 2) = 200 Tons; ETC

T.S.P Production Plant at Chittagong (120,000 Tons per Year)
Urea Production Plant at Fenchuganj (75·000 Tons per Year)
" " " Ashuganj (475,000 Tons per Year)
" " " Ghorasal (350,000 Tons per Year)



MODE OF MOVEMENT	DESPATCH FROM									
	CTG. PORT		CHALNA PORT		TOTAL IMPORTS		CTG. TSP PLANT		SHIROMONI (IN TRANSIT)	
	TONS	PERCENT	TONS	PERCENT	TONS	PERCENT	TONS	PERCENT	TONS	PERCENT
BY RAIL	37724	37·36	0	0	37724	16·06	37902	63·17	96225*	80·02
BY ROAD	0	0	0	0	0	0	19974	33·29	24028	19·98
BY RIVER	63249	62·64	133849	100·00	197098	83·94	2124	3·54	0	0
TOTAL	100973	100·00	133849	100·00	234822	100·00	60000	100·00	120253	100·00

* RAIL MOVEMENT BY UNIT TRAIN

NOTE:

PATUAKHALI
Supplied from Chittagong Port (Imports) 1330 Tons
Supplied from Chalna Port (Imports) 1231 Tons
BY BARGE TO PATUAKHALI Total = 2561 Tons

NOTE

(1634)- Figure in brackets shows tonnage supplied from Chittagong TSP Plant
4589- Figure indicate tonnage of TSP supplied from imported sources

Traced by - Ashoy Kumar Roy
Date :- Nov 1979

MAP OF BANGLADESH

NATIONAL FERTILIZER STORAGE PLAN

Scale 1 Inch = 16 Miles

LEGEND FOR FERTILIZER MOVEMENTS BY MODES

- Rails (Meter Gauge)
- Rails (Broad Gauge)
- Trucks
- Barges
- Country Boats/Small Cargo Launch

LEGEND FOR MAIN MODE OF DELIVERY OF FERTILIZERS

- By Rail to PDP Warehouses
- By Rail with Transit for other PDP's
- By Rail to Transit Warehouses
- By Trucks to PDP Warehouses
- By Barges to PDP Warehouses
- By Barges with Transit for other PDP's
- By Barges or Ships to Transit Warehouses

REFERENCES

- International Boundary
- District boundary
- Broad Gauge Railway with Station
- Meter Gauge Railway with Station
- Roads Completed
- Roads Under Construction
- River
- District Head Quarters

BADC'S EXISTING FERTILIZER WAREHOUSES

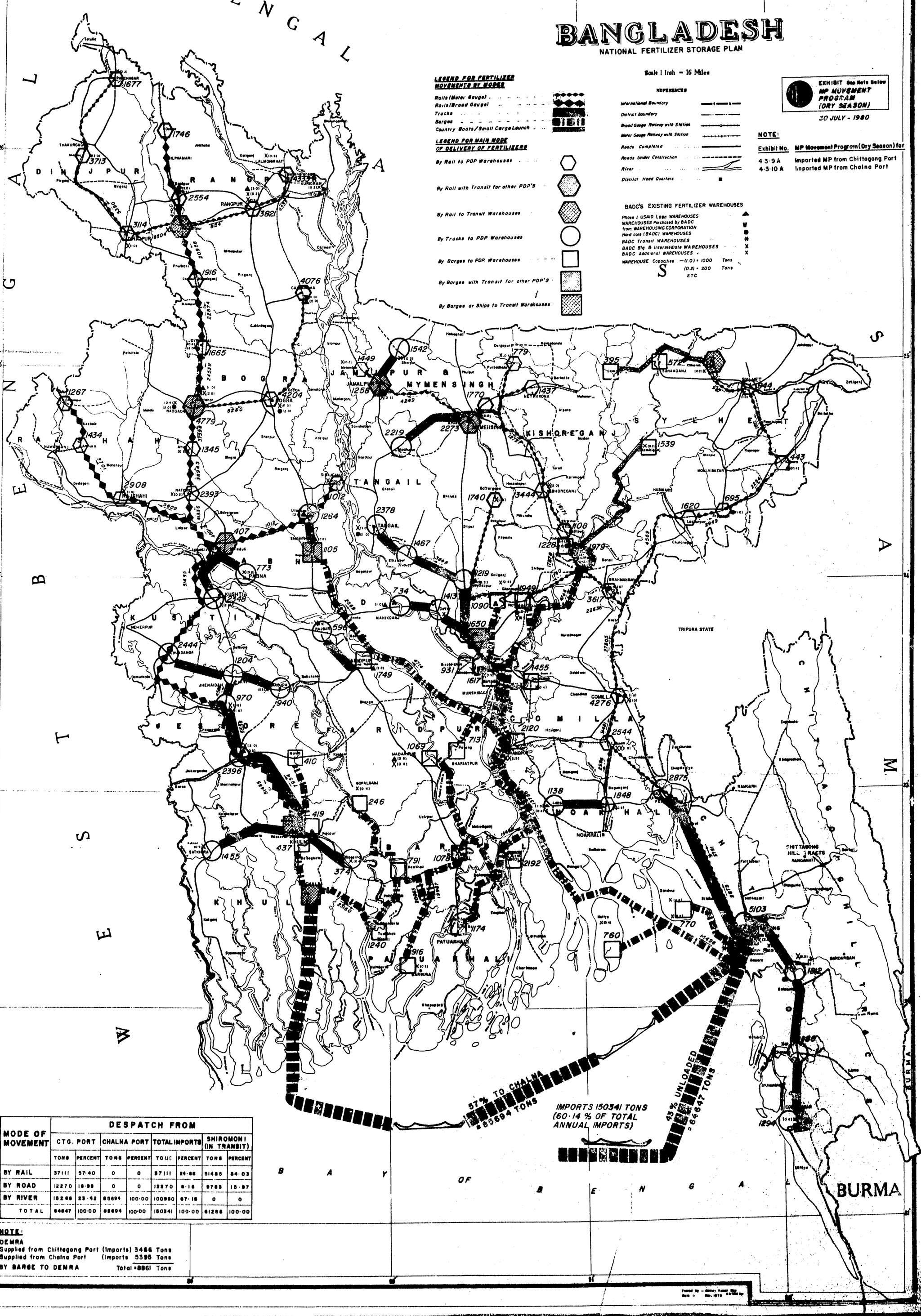
- Phase I USAID Loan WAREHOUSES
- WAREHOUSES Purchased by BADC from WAREHOUSING CORPORATION
- Hard core (BADC) WAREHOUSES
- BADC Transit WAREHOUSES
- BADC Big & Intermediate WAREHOUSES
- BADC Additional WAREHOUSES

WAREHOUSE Capacities — (1.0) = 1000 Tons; (0.2) = 200 Tons; ETC

EXHIBIT See Note Below
MP MOVEMENT PROGRAM (DRY SEASON)
30 JULY - 1980

NOTE:

Exhibit No.	MP Movement Program (Dry Season) for
4·3·9 A	Imported MP from Chittagong Port
4·3·10 A	Imported MP from Chalna Port



MODE OF MOVEMENT	DESPATCH FROM							
	CTG. PORT		CHALNA PORT		TOTAL IMPORTS		SHIROMONI (IN TRANSIT)	
	TONS	PERCENT	TONS	PERCENT	TONS	PERCENT	TONS	PERCENT
BY RAIL	37111	57·40	0	0	37111	24·66	51485	84·03
BY ROAD	12270	18·98	0	0	12270	8·16	9783	15·97
BY RIVER	15266	23·62	85694	100·00	100960	67·18	0	0
TOTAL	64647	100·00	85694	100·00	150341	100·00	61268	100·00

NOTE:

DEMRA
Supplied from Chittagong Port (Imports) 3466 Tons
Supplied from Chalna Port (Imports 5395 Tons
BY BARGE TO DEMRA Total = 8861 Tons

MAP OF BANGLADESH

NATIONAL FERTILIZER STORAGE PLAN

Scale 1 Inch = 16 Miles

EXHIBIT See Note Below
MP MOVEMENT PROGRAM (WET SEASON)
30 JULY - 1980

LEGEND FOR FERTILIZER MOVEMENTS BY MODES

- Rails (Meter Gauge)
- Rails (Broad Gauge)
- Trucks
- Barges
- Country Boats/Small Cargo Launch

LEGEND FOR MAIN MODE OF DELIVERY OF FERTILIZERS

- By Rail to PDP Warehouses
- By Rail with Transit for other PDP'S
- By Rail to Transit Warehouses
- By Trucks to PDP Warehouses
- By Barges to PDP Warehouses
- By Barges with Transit for other PDP'S
- By Barges or Ships to Transit Warehouses

REFERENCES

- International Boundary
- District boundary
- Broad Gauge Railway with Station
- Meter Gauge Railway with Station
- Roads Completed
- Roads Under Construction
- River
- District Head Quarters

BADC'S EXISTING FERTILIZER WAREHOUSES

- Phase I USAID Loan WAREHOUSES
- WAREHOUSES Purchased by BADC from WAREHOUSING CORPORATION
- Hard core (BADC) WAREHOUSES
- BADC Transit WAREHOUSES
- BADC Big & Intermediate WAREHOUSES
- BADC Additional WAREHOUSES

WAREHOUSE Capacities — (1 0) = 1000 Tons; (0 2) = 200 Tons; ETC

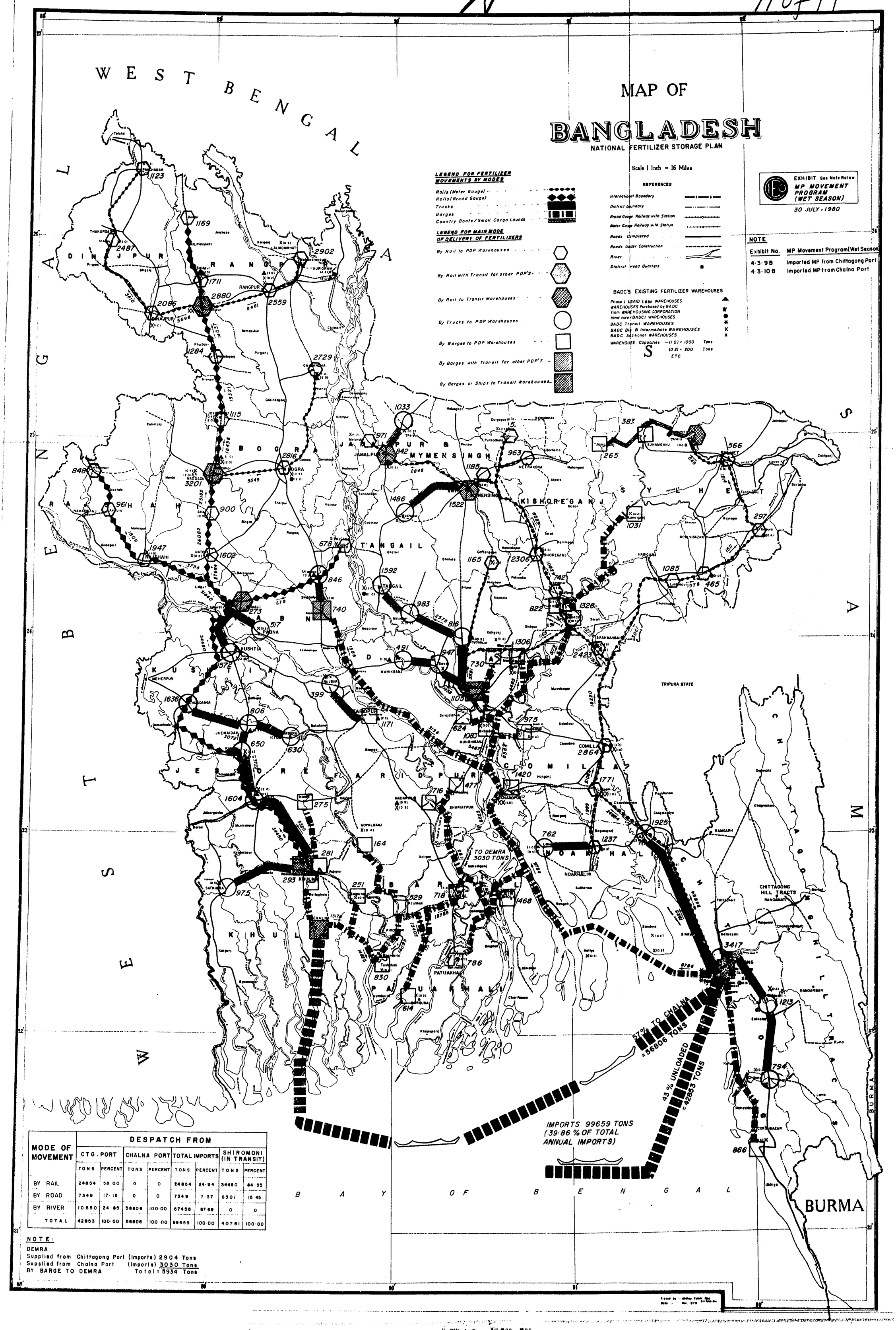
NOTE

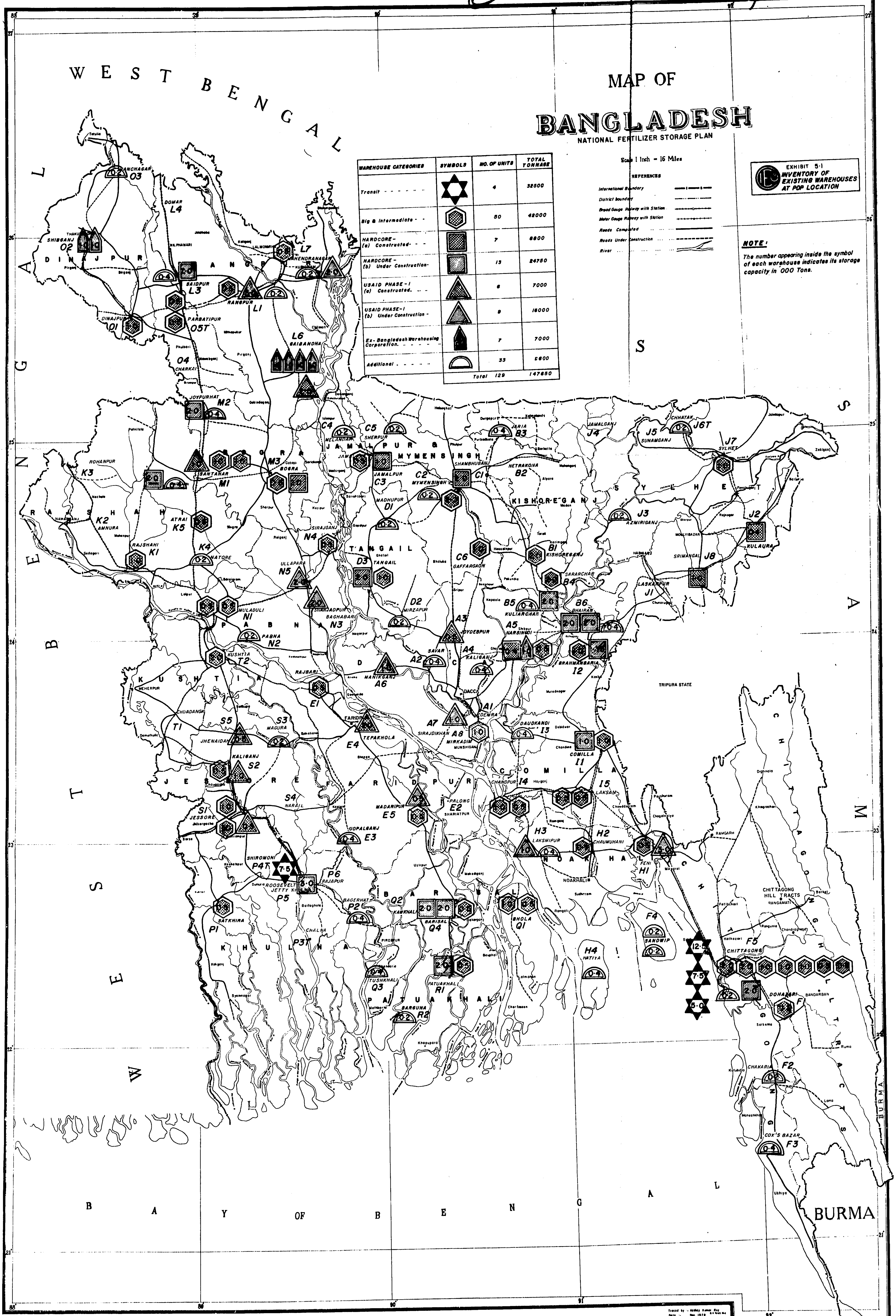
Exhibit No.	MP Movement Program (Wet Season)
4·3·9B	Imported MP from Chittagong Port
4·3·10B	Imported MP from Chalna Port

MODE OF MOVEMENT	DESPATCH FROM							
	CTG. PORT		CHALNA PORT		TOTAL IMPORTS		SHIROMONI (IN TRANSIT)	
	TONS	PERCENT	TONS	PERCENT	TONS	PERCENT	TONS	PERCENT
BY RAIL	24854	58·00	0	0	24854	24·94	34480	84·55
BY ROAD	7349	17·15	0	0	7349	7·37	6301	15·45
BY RIVER	10650	24·85	56806	100·00	67456	67·69	0	0
TOTAL	42853	100·00	56806	100·00	99659	100·00	40781	100·00

NOTE:

DEMRA
Supplied from Chittagong Port (Imports) 2904 Tons
Supplied from Chalna Port (Imports) 3030 Tons
BY BARGE TO DEMRA Total = 5934 Tons




MAP OF
BANGLADESH
NATIONAL FERTILIZER STORAGE PLAN
Scale 1 Inch = 16 Miles
EXHIBIT 5·1
INVENTORY OF EXISTING WAREHOUSES AT POP LOCATION
WAREHOUSE CATEGORIES | SYMBOLS | NO. OF UNITS | TOTAL TONNAGE
Transit | 4 | 32500
Big & Intermediate | 50 | 42000
HARDCORE - (a) Constructed | 7 | 8800
HARDCORE - (b) Under Construction | 13 | 24750
USAID PHASE - I (a) Constructed | 6 | 7000
USAID PHASE - I (b) Under Construction | 9 | 16000
Ex-Bangladesh Warehousing Corporation | 7 | 7000
Additional | 33 | 5600
Total 129 | 147650
REFERENCES
International Boundary
District boundary
Broad Gauge Railway with Station
Meter Gauge Railway with Station
Roads Completed
Roads Under Construction
River
NOTE:
The number appearing inside the symbol of each warehouse indicates its storage capacity in '000 Tons.
WEST BENGAL
WEST BENGAL
ASSAM
BAY OF BENGAL
BURMA
TRIPURA STATE
CHITTAGONG HILL TRACTS
DINAJPUR
RANGPUR
RAJSHAHI
BOGRA
PABNA
KUSHTIA
JESSORE
KHULNA
FARIDPUR
DACCA
TANGAIL
JAMALPUR & MYMENSINGH
KISHOREGANJ
SYLHET
COMILLA
NOAKHALI
BARISAL
PATUAKHALI
CHITTAGONG