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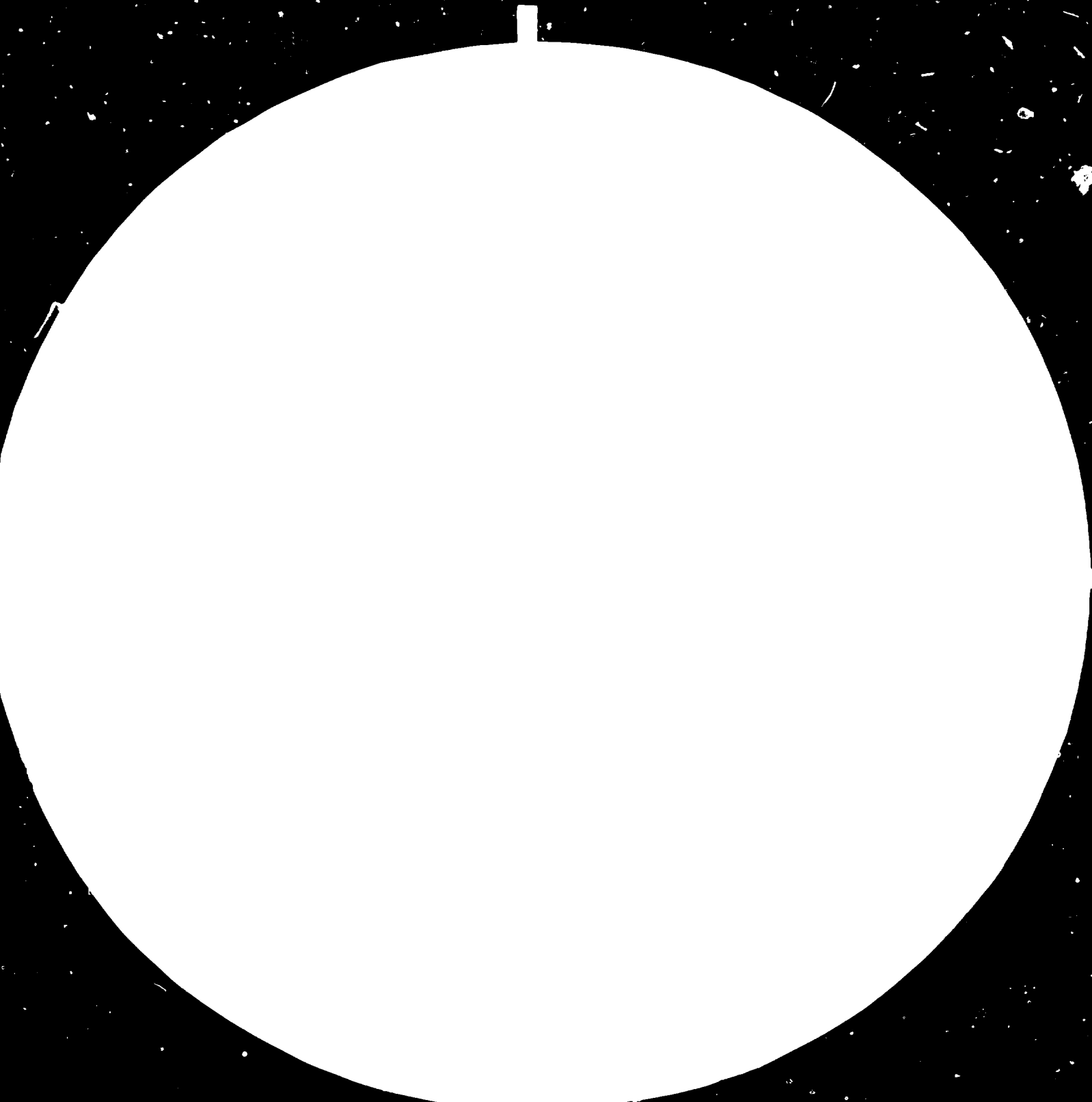
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DEVELOPMENT OF AMMONIA FERTILIZER INDUSTRY IN BANGLADESH - A PROSPECT
FOR ECONOMIC CO-OPERATION AMONG DEVELOPING COUNTRIES*

by

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Mr. Chairman, distinguished delegates, observers to the Conference, members of the UNIDO and World Bank, ladies and gentlemen:

I wish to open my deliberation with an Arabic saying of Prophet Muhammad made 1,400 years ago which means "In search of knowledge, go to China, if need be" and as a follower of that greatest and the last prophet of God, I am proud of being here in this great country of Huang-ho and Yangshi civilization where human knowledge flourished in abundance over 3,000 years back.

Worldwide many a nation acquired knowledge and technology from the great people of China in pursuit of economic development of their country. The UNIDO has thus rightly selected the venue of this Conference in Beijing to discuss and exchange knowledge, technology and co-operation on a subject, vital for the world populace especially the developing countries.

God Almighty in his message to our Prophet Muhammad(SA) as back as in 7th Century AD, as recorded in the Holy Quran in one of its verses stated "I have given you Air to fertilize your land, here is a portent for men of intelligence".

Men of intelligence though too late in understanding such a portent from their Creator for harnessing nitrogen from air has of late developed that acumen through ammonia fertilizer technology.

But unfortunately for us the developing or least developed countries where the need for ammonia fertilizer has become imperative to save its ever growing populace from the curse of starvation, the knowledge for implementing the technology or for that matter efficient use of the technology and the progress thereof have been far from satisfactory. That is what compelled us the developing nations today to meet for exchange of each others knowledge of the technology to suit our environment, capability and economy for best utilization of our resources for a better and brighter future.

It is a natural phenomenon that a big and mighty devours the small and weaklings unless the later know how to survive through collective efforts and co-operation or tact and wisdom of its own. Advancement through collective efforts and co-operation is certainly the easier and fastest way of changing our economic fate than depending on one's own tact and wisdom. Why then we do not choose the way of advancing through collective efforts and co-operation, especially we

in Asia, where poverty and population boom has found its permanent abode. We often meet, discuss, promise and ensure co-operation in various forms and forums but none was found effective for the benefit of the suffering nations. Of late, came forth the Lima declaration and plan of action on industrial development and co-operation of the UNIDO as adopted at its 2nd general Conference held in Lima, Peru, in March 1975 after considering, realizing, recognizing (and so forth) all aspects and importance of which co-operation among developing countries was a major plan of action.

I, therefore, sincerely wish that purpose of this conference will not end up with the winding up of its session but with some definite proposals and plan of actions for immediate implementation within a specific time schedule.

I have in the enclosed sheet gave a short description of my country - Bangladesh and its economy. This will introduce us as a least developed country in the world stuffed with 90 million human resources in an area of 143,998 km². In economic world, we are categorized as to be in the medieval stage although 22% (20 million) of our people are adequately literate, equivalent of which are not the total population of many a country of the world. Population boom and persistent marked tension of the international situation has shattered the economy of the country so much so that the current resources of the country are hardly adequate to overcome the crisis unless multiplied forthwith to overcome the abject situation.

In spite of the availability of low cost of raw materials and the necessary infrastructure of producing the required ammonia fertilizer, Bangladesh has been importing urea to meet the shortfall for the following reasons:

- 1) - After commissioning of the country's first urea fertilizer factory in 1962 having a rated capacity of 1,06,000 mt/yr. the second urea plant with an installed capacity of 3,40,000 mt/yr. came to stream as late as in 1972, after a decade. Although by the time the urea demand of the country reached to about 3,00,000 mt/yr. during 1979 but by then the first urea plant outlived its life and its capacity declined to 55% and the second plant long continued with its teething troubles demanding debottlenecking. The country thus continued to import bulk of its urea requirement. In 1980-81, rehabilitation of the first plant was completed after a shutdown of 18 months duration and the plant started giving optimum production. Sustained effort to overcome the inherited shortcomings of the second urea plant started giving 80% capacity production since 1980-81 but failure to arrest down time did not allow the plant to be on stream more than 270 days a year. The country demand of urea could not thus be met although capacity to do so exists.
- ii) The third urea plant with a yearly capacity of 5,28,000 mt which was

supposed to be on stream in 1978-79 has after a severe time and cost overrun is now undergoing the period of teething trouble after commissioning from December 1981 and is still unpredictable as to how long such teething trouble will continue. Thus in terms of capacity possession our country is now surplus to the tune of 5,00,000 mt of urea for export but in fact, we are hardly capable of meeting our present demand of about 3,50,000 mt urea even.

- iii) While India, Pakistan, Sri Lanka and China have been importing urea to meet their growing demand, we in Bangladesh in spite of our capability of offering the most competitive price more so because of location and consequential capability of allowing freight benefit, could not as yet become an exporter especially in offering the desired co-operation to our neighbouring developing countries.

The reasons may be summarized as under:

- 1) Inadequate planning for building up of ammonia fertilizer capacity commensurate with the demand trend and facility;
- 2) Failure to maintain plan targets because of inadequate contracting and supervision resulting cost and time over run leading to high cost of production;
- 3) Failure to utilize the capacity at its optimum.
- 4) Availability of funds;
- 5) Absence of programmed training of people at all levels of management and shop floor to substitute exodus of technical hands to Middle Eastern countries.

Investment priority in Bangladesh includes development of export oriented industries based on indigenous raw materials and accelerated development of industries in less developed areas. I sincerely believe that both the priorities can be achieved at a time by setting up a number of ammonia fertilizer plant in the rural areas/less developed areas of capacity 60,000 mt ammonia and 100,000 mt urea per annum based on developing country's capability to engineer and built such plant in collaboration amongst themselves and with UNDP assistance.

Large capacity plants which were supposed to be economical in terms of investment and cost of production has not proved so in case of Bangladesh. The issue may be same for other developing countries.

Unless such plant could be built up right on schedule and operated at its optimum capacity the purpose of getting benefit out of it would be remote as happened with the Ashuganj Fertilizer Plant of Bangladesh. People

now term it as a white elephant. While the government had refixed the fertilizer(urea) price for farmers increasing it from \$110/mt to \$140/mt with the coming of the large Ashugany urea plant, its cost of production has been computed to be at \$150/mt operating at 80% capacity. The farmers on the other hand have no capability to pay higher price which will result in lesser consumption of fertilizer as being apprehended. The two old plants each of 330 mt and 1100 mt per day capacity of urea have been costing hardly \$110/mt average.

Bangladesh has a proven reserve of 9.36 mm cft methane rich(97%) natural gas with another probable reserve 11.5 mm cft or more. Process obsolescence has rendered the emphasis, of going for such petrochemical products PACM, PVC, die down leaving this methane rich natural gas only suitable for meeting energy requirements and extensive use as feedstock for ammonia fertilizer.

My arguments in favour of small ammonia fertilizer plant for Bangladesh are as follows:

- 1) Setting up of small plant in rural area will serve the requirement of particular area involving much less distribution cost, cost of distribution being going higher and higher.
- 2) It will be a nucleus of developing the particular area creating job opportunity and other benefits.

I would, therefore, like to conclude my deliberation recommending formation of a task force with the following terms of reference with assistance from UNIDO for the purpose of generating active co-operation among developing countries for becoming collectively self-reliant in the field of ammonia fertilizer technology from conception to completion stage of a plant:

- 1) To study the present capacity utilization of the ammonia fertilizer factories of the developing countries and make necessary recommendations for optimum utilization of the capacity with co-operation from among developing countries;
- 2) To analyse the performance of the existing ammonia fertilizer factories and suggest ways and means for improving productivity;
- 3) To study the investment potential of the developing countries for setting up ammonia fertilizer factory in joint venture between developing countries;
- 4) To study and select the best possible location for setting new capacity of ammonia fertilizer wherein and from ammonia fertilizer can be produced and supplied to other developing countries at a favourable price;

- 5) To study and recommend setting up of an institution in each developing country for sharing and exchange of technical know-how in the field of ammonia fertilizer technology covering such activities as planning, design of plant and equipment, project engineering, installation and commissioning, reasearch and development;
- 6) To study and examine the existing facility for manufacturing spare parts requirement in the developing countries and recommend setting up new facilities where necessary;
- 7) To study the future requirement of ammonia fertilizer by the developing countries with a view to determine the optimization level of the existing factories and to create new capacities for producing and marketing of the product/products among the developing countries;
- 8) To determine the right capacity of a plant depending on the available infrastructure facility and capability of the developping countries to engineer such capacity plant commensurate with the know-how mastered by the developing countries;
- 9) To organize a relation between managements of identical ammonia fertilizer plants for exchange of spare parts and technical specialists as and when needed.

Thanking you all.

BANGLADESH

Area

Total area	143,998 Square Kilometers
Cultivated area	22.42 million acres
Area under forest	5.42 million acres

Population

Population	90.25 million
Growth rate	2.8 %
Density of population	627 persons per square kilometer

Exchange rate

US\$ 1 = 14.543 Taka

G.N.P.(1979)

8,320 US million dollars

(at current prices)

Per Capita Income

US\$100

(at current prices)

Language

The national language is Bengali which is also the official language. English is widely spoken and used in the offices and educational institutions.

Agriculture

Agriculture is the dominant sector of the economy of Bangladesh employing about 75% of the total labour force and contributing 56% to G.D.P. production of principal crops in 1979 - 80:

<u>Cro s</u>	<u>1979-80</u>
Rice	12.51 million tons
Wheat	0.81 " "
Jute	6.67 " "
Potatoes	902 thousand tons
Pulses	217 " "
Edible Oil Seeds	108 " "
Tea	78 million lbs.

In order to achieve a growth rate of 6.3% per annum during the second five year plan (1980 - 85), a sum of TK 74,350 million (29% of total plan out lay) has been allocated for the Agriculture Sector.

Livestock

The population of livestock in 1979/80 was estimated at 29.5 million animals and 50.4 million poultry birds. The production of livestock and draught power in 1977-1978 was as follows:

<u>Item</u>	<u>Production</u>
Milk and Milk Products	1189 000 tons
Meat	231 000 tons
Eggs	1349 million
Draught power	8 million

Fisheries

Fishery sector contributes approximately 5% to the G.D.P., 6% to export earnings and is an important source of protein for the population. About 80% of the animal protein supply comes from fish.

Industry

The country has now substantial capacities in jute textile, sugar, cotton textile, some engineering goods and a variety of consumer goods. Production of some selected industrial items manufactured in Bangladesh during 1978/79 was

<u>Commodity</u>	<u>Unit</u>	<u>Quantity</u>
Jute textile	000 tonnes	500
Cotton Fabric(mill made)	million yards	88
Cotton yarn	million Lbs.	111
Steel (ingot)	000 tonnes	121
Paper and newsprint	000 tonnes	68
Heavy transport (bus, truck, car)	Nos.	1516
Sugar	000 tonnes	130
Cigarettes	Billion sticks	14
Matches	Million gross boxes	90
Fertilizer	000 tonnes	363
Petroleum Products	000 tonnes	1329
Cement	000 tonnes	319

Investment Priorities

The following are the priorities:

- i) Development of export oriented industries, preferably those based on indigenous raw materials.
- ii) Promotion of import substitution industries.
- iii) Accelerated development of industries in less developed areas including the rural areas.
- iv) Optimum utilization of the existing installed production capacity through consolidation by way of balancing modernization and replacement.
- v) Utilization of local raw materials by promoting agro-based and other related industries and
- vi) Special emphasis on labour intensive industries and adoption of appropriate technologies for the creation of maximum employment opportunities.

Main fields for industrial investment

Main fields for industrial investment are as follows:

- i) Food and allied products
- ii) Specialized textiles and hand-loom
- iii) Forest products of allied industries
- iv) Paper Board printing and publication
- v) Tannery, leather and rubber products
- vi) Chemicals, pharmaceuticals and allied industries
- vii) Glass and glass products and ceramics
- viii) Engineering industries

Private sector is allowed to make investment in the following sectors of industries in collaboration with public sector:

- i) Paper and newsprint
- ii) Iron and Steel (excluding Re-rolling Mills and Mini Billet Mills)
- iii) Ship building and heavy engineering (including machine tools and assembly manufacture of cars, buses, trucks, tractors and power tillers)

- iv) Heavy Electrical Industry
- v) Minerals, Oil and Gas
- vi) Cement
- vii) Petro-chemicals (fertilizer, PVC ethylene and synthetic fibre)
- viii) Heavy and basic chemicals and basic pharmaceuticals
- ix) Shipping
- x) Forest extraction (mechanized)

Foreign Investment Incentives:

Bangladesh offers a number of incentives and concessions to foreign private investments. These include repatriation facilities to both profits and capital tax holiday for 5 to 9 years, liberal depreciation allowance, availability of credits, relief from double taxation, freedom in selection of industrial projects consistent with the national objectives of economic growth etc.

Communication:

Bangladesh railway is the principal mode of transport of the country and plays a vital role in the overall development of the country's economy. The Bangladesh railway has a total route length of 1,786.2 miles. There are about 2,340 miles of surfaced roads and about 1014 miles of un-surfaced roads, 425 miles of roads are under construction.

Inland water ways also play a vital role in the transportation of goods and passengers. In a recent survey, it has been found that 65% of cargo and 38% of passengers traffic is carried by the inland water-ways.

A shipping corporation was established in 1972. It has a fleet of 25 vessels of 356,744 tons deadweights capacity and 1814 passengers.

Foreign Trade:

Major items of exports and imports in 1979/80 were as follows:

Export

<u>Exports</u>	<u>Million Taka</u>
Jute goods	6000
Raw jute and Hesta	2220
Tea	510
Leather, hides and skins	1020
Fish and Fish preparation	590
Others	810

TOTAL

11150

<u>Imports</u>	<u>Million Taka</u>
Food granins	9650
Edible oil and oil seeds	1180
Crude petroleum	4060
Petroleum products	1990
Cotton and staple fibre	880
Yarn	170
Textile	530
Fertilizer	2070
Cement	560
Machineries	7360
<u>Raw material and consumer goods</u>	<u>8310</u>
TOTAL	36760



