

In the light of such pricing arrangements, the sales price of urea set for the Project should be close to prevailing world prices of urea. On this presumption, the Evaluation Study Team attempted to project likely trends of urea prices in international markets -- especially Southeast and Southwest Asian markets -- in the future and, based on such projected international market price trends, set the ex-factory price of urea for the Project at a level which the C&F price would be comparable to world prices (refer to Chapter 4, Part II). The projected world prices as well as ex-factory prices of urea are shown in Table VI-4. As the plan agreed by the ASEAN Economic Ministers for the Project is to ship urea in bulk, the price projection is based on bulk urea.

It is assumed that the Project will start commercial operation in March, 1984. Hence, for the financial projections the price shown as the projected ex-factory price as of 1984 in Table VI-4, i.e., US\$175/t, is used as a constant. Sensitivity analysis is made by applying variances of US\$160/t, US\$190/t and US\$205/t.

It was also agreed by the ASEAN Economic Ministers that, in the event there is surplus production from the Project, the Government of Malaysia shall guarantee to absorb the surplus production at the agreed formula price by supplying the product either to the domestic market, markets outside ASEAN countries, or both.

Thus it is assumed that the given price is commonly applicable for domestic sales and exports destined for other ASEAN markets as well as markets outside ASEAN countries.

(Notes) *1) The agreement on the establishment of the Project defines the meaning of "available ASEAN markets" as follows:

- (a) the markets in the Philippines and Thailand after considering their own domestic production of urea, and
- (b) the market in Indonesia if there is insufficient production of urea in Indonesia.

*2) The floor and ceiling prices shall be fixed so as to yield the following rates of return:

- (a) Floor price: Internal Rate of Return on Investment of 8% after tax
- (b) Ceiling price: Internal Rate of Return on Investment of 20% after tax

B. Ammonia

It seems that the agreed principle on a pricing formula is implicit for ammonia as well, although there is no statement clearly providing a pricing formula for ammonia. PETRONAS Project Team, the executing agency for the Project, plans to market the produced ammonia primarily to the Malaysian domestic market, to substitute for imported ammonia. In order to compete with imported ammonia, the price of ammonia supplied from the Project will have to be comparable to that of ammonia imported into Malaysia from outer sources. Hence the ex-factory price should follow the international market prices of ammonia.

On such a presumption, the Evaluation Study Team attempted projection of likely trends of ammonia prices in international markets, especially Southeast Asian markets, in the future and, based on such projected international market price trends, set the ex-factory price of ammonia at a level which can result in a C&F price comparable to international market prices. (Refer to Chapter 4, Part II.) The thus-projected ex-factory price of ammonia is shown in Table VI-4.

For the financial projections US\$205/t, shown as the projected ex-factory price as of 1984 in that table, is used as a constant.

2-3 Natural Gas Price

In accordance with the agreement made by the ASEAN Economic Ministers, natural gas supplied for the Project will be charged at the price of US\$0.70 per MMBTU of the gas delivered to the fence of the Complex, which price, commencing from 1st January, 1979, shall be subject to escalation in accordance with the following guideline:

- a. The escalation rate shall be based on a simple average of the actual rate of price increases in the immediately preceding calendar year of the following:

33 1/3%:	Miri Light Crude
33 1/3%:	Kuwait Crude
33 1/3%:	Medium Fuel Oil (Shell Pulau Bukom Posting)

- b. The effective escalation rate shall not be more than 7% per annum.

- c. The escalation shall not apply during the period when the prevailing international market price of urea is lower than the floor price established for the Project.

Current price trends of the listed crude oil and petroleum products are shown in Table VI-5. Similar to the worldwide oil price tendency, their prices have been rising at an average rate of 5.7% per annum after an upward surge in 1974.

In view of the recent movements of OPEC, the future trend of oil prices is unforeseeable. Nevertheless, most authorities predict that the world oil prices are likely to be raised at rates much higher than those shown during the last few years. Hence it is assumed that the prices of the listed petroleum products will rise henceforward at an increase rate as high as 7% per annum which results in an escalation rate of 7% per annum that is the maximum of the agreed escalation for the price of supplied natural gas.

The prices of supplied natural gas estimated for the year of 1984 with variances of escalation rates according to the agreed pricing formula of natural gas are as follows:

<u>Escalation Rate</u>	<u>Natural Gas Price at Complex Gate - 1984</u> (Per MMBTU)
5% p.a.	US\$ 0.89
6% p.a.	US\$ 0.94
7% p.a.	US\$ 0.98

(Base price: US\$0.70 per MMBTU, as of 1st January, 1979)

The financial projections use the price of US\$0.98 per MMBTU at the plant-gate of the Project, as a constant, which is estimated at an escalation rate of 7% per annum. The gas prices estimated at lower escalation rates will be used for sensitivity analysis.

2-4 Prices of Supplied Utilities

2-4-1 Electric power

The Project plans to use electric power supplied by SESCO. SESCO will be responsible for the supply of electric power up to the plant fence of the Project (refer to Chapter 3, Part IV).

Bintulu area is classified as Class II in SESCO's power tariff schedule. In the immediate future, however, this area will be raised to Class I. The present Class I tariff sets the charge of high voltage power supplied for industrial premises as follows:

- a. Maximum demand charge *): M\$0.12/KWH
 - b. Running charge: M\$0.09/KWH
- (with minimum charge of
M\$800 per month)

Note: *) The maximum demand charge shall be applied to any excess of power consumption over a contractual maximum demand.

On the basis of the present tariff rates stated above, the cost of electric power consumed at the Complex is calculated as M\$0.09 (US\$0.04)/KWH at the Complex gate as of 1979. The financial projections use a power cost of US\$0.06 (M\$0.13)/KWH, as a constant, at the plant gate which is estimated for the year of 1984 with the projected escalation rate of 7% per annum.

2-4-2 Water

The financial projections are based on an assumption that all water requirements for the Project will be met by potable water supplied by the Public Works Department of the Sarawak State Government. (Refer to Chapter 3, Part IV.) The present tariff sets the rates of potable water at M\$1.5 per 1,000 gallons for residential consumers and at M\$2.0 per 1,000 gallons for large industrial consumers. Thus the cost of water consumed at the Complex is calculated as M\$2.0 per 1,000 gallons (equivalent to US\$0.20/m³) at the plant gate as of 1979. The financial projections use a water cost of US\$0.28/m³, as a constant, at the Complex gate, which is estimated for the year of 1984 with the projected escalation rate of 7% per annum.

2-5 Land Cost

Land for the selected plant site is held by the Bintulu Development Authority (BDA) which is responsible for the development of industrial estates in the Bintulu area. Though

BDA plans to lease the land (about 40 ha) on an "as is" basis, it has not yet established a firm rate of land lease charges.

PETRONAS Project Team assumed an annual lease charge of M\$ 0.02 per sq. ft. of land for their feasibility study of the Project. The financial projections use an annual lease charge of US\$ 0.17 per m² (equivalent to approximately M\$0.035 per sq. ft.) as a hypothesis.

As stated earlier, costs for site preparation will be borne by the Project. For the financial projections, the estimated site preparation cost is capitalized with no depreciation, while the lease charges are included in annual operating costs.

2-6 Taxation

The Project will be provided with maximum incentives related to taxation which may be allowed under the tax laws and regulations in Malaysia. Furthermore, it will be subjected to tax incentives which may be provided to a pioneer-status project under the investment law of Malaysia. The following is taxation assumed for the financial projections, taking such tax incentives into account:

a. Corporate tax

Corporate tax will be imposed at a rate of 50% of taxable income, consisting of:

- Company tax	40%
- Development tax	5%
- Excess profit tax	5%
	<hr/>
Aggregate tax rate:	50%

The Project, however, will be provided with tax holidays for an aggregate period of 10 years from the year when commercial operation is started. The 10-year tax holiday period is computed as follows:

- Local incentives	8 years
- Priority product	1 year
- Malaysian content	1 year
	<hr/>
Aggregate tax-holiday period:	10 years

b. **Sales tax**

The Project will be exempted from sales tax to be imposed in Malaysia.

c. **Surtax**

Surtax will be exempted for all products of the Complex.

d. **Import duties**

Spare parts imported subsequently after those initially imported as a package along with machinery and equipment will be exempted from import duties by request to the ministries concerned.

For the financial projections it is assumed that such subsequently imported spare parts will be exempted from import duties.

Catalysts and chemicals imported for the operation of the Project will be exempted from import duties.

e. **Initial and annual capital allowances**

The Malaysian tax law allows no depreciation nor amortization, but does allow initial and annual capital allowances which are deductible from gross earnings for the computation of taxable income. The rate of these allowances is as follows:

- **Initial capital allowance:**

Deductible at 20% of the total capital value (except working capital) in the immediate subsequent year after the expiration of tax holiday period.

- **Annual capital allowance:**

Deductible at 7.5% of the total capital value (except working capital) in the immediate subsequent year after the expiration of tax holiday period and in the subsequent years at the same rate but against the balance of capital value after the deduction of allowance applied in the preceding year.

2-7 Other Cost Factors

Cost factors other than those stated in Sections 2-1 to 2-6 above which are used for the estimates of manufacturing costs are stated in the subsequent chapter.

CHAPTER 3 AMMONIA AND UREA MANUFACTURING COST

3-1 Method of Calculation of Manufacturing Cost

3-1-1 General

When discussing the financial aspects of a project, the general procedure is to first analyze manufacturing costs and then to analyze profitability through the additional examination of income to be earned.

Because this Project will produce two products for sale, namely ammonia and urea, it is necessary to calculate the costs separately for each. On the other hand, the complicated utility system and common service/offsite facilities are involved in the Complex. In addition to this, although part of the ammonia will be sold, most of it will be used to produce urea, further complicating efforts at calculating and allocating costs.

With consideration given to the above situation, the calculation of costs for the two products was thus done on the basis of the following principles.

- i) All costs are to be allotted to both the ammonia and urea plants according to a rational means.
- ii) First, the cost of producing all of the ammonia, including that portion to be sold and that portion to be used for production of urea, would be calculated.
- iii) Then, the cost of producing urea would be calculated using as the cost of ammonia the cost obtained in step ii).
- iv) It is to be assumed that carbon dioxide produced in the ammonia plant would be supplied at no cost to the urea plant for use in producing urea. The reason for this is that carbon dioxide has no market value as it is, and unless it was to be used in the urea plant, it would be discharged into the atmosphere.

The basis for the variable and fixed costs which are given below is to be found in Chapter 2 of this Part, to which reference may be made.

3-1-2 Allotment of variable costs

The items representing variable costs of factors purchased from outside the Complex are four in number: (i) natural gas, (ii) electric power, (iii) water, and (iv) catalyst and chemicals. These are used directly and indirectly in the two process plants, namely ammonia and urea.

For example, water is not directly used in the process plants, but rather is used in various indirect ways: some is used for cooling, in connection with either the process plants or utilities; some is processed and used as boiler feed water, some of which is used in the ammonia process, and some is changed to steam for use in utilities.

In view of the complexity of the conditions of use of these factors, the allotment of the four variable cost items to the ammonia and urea plants is done as follows:

- i) Variable cost items which are directly used in either the ammonia or urea process plant are allocated in full to that plant.
- ii) For variable cost items connected with utilities, the share of each utilities facility's output used by the ammonia and the urea process plant is calculated, and taken as the basis for allotment of the utility's variable costs.
- iii) Regarding variable costs of offsite facilities, the costs of storing and loading products are to be allocated in full to the respective products' plants. Regarding common service facilities, allocation is to be on the basis of each process plant's FOB equipment cost.

The results of allocation of costs according to the above method are shown in Table VI-6.

3-1-3 Allotment of total capital requirement

- i) Site preparation costs

To be allotted according to the ratio of site area used by each process. In the case of the urea plant the area needed for the product storage is large, and in the case of the ammonia plant the share of offsite facilities use is large, so each are allocated to the

ammonia and urea plants on a 50:50 basis.

- ii) The plant direct costs, and ocean freight, insurance and local handling costs for the process plants are in full allocated to each process plant. These costs for the utility facilities are to be allotted to the process plants in the same ratio as determined above for variable costs.

Among the offsite facilities, these costs for the product storage and loading facilities are to be allocated in full to each process plant. Cost for common service facilities are to be allotted in the ratio of the process plants' FOB costs.

The allocation therefore is as follows:

	<u>Ammonia Plant</u>	<u>Urea Plant</u>
Process facilities		
Ammonia	1.00	-
Urea	-	1.00
Utilities facilities		
Water treatment facilities	0.72	0.28
Cooling water facilities	0.70	0.30
Steam generating facilities	0.71	0.29
Power service facilities	0.37	0.63
Offsite facilities		
Urea storage	-	1.00
Urea loading facilities	-	1.00
Ammonia tankage	1.00	-
Ammonia loading facilities	1.00	-
Common service facilities	0.70	0.30

- iii) Other capital cost categories

For each of the other capital cost categories (construction equipment, indirect field expenses, services, project management costs, pre-operation costs, and cost of initial working capital), allotment is to be made according to whichever of the following is suitable:

- The overall ratio of the above i) and ii)

The ratio of the process plants' FOB cost

Interest during construction is to be allocated according to the total cost ratio of the above.

Results of allocation of costs as described above are shown in Table VI-7; 64.1% of the total is to be allotted to the ammonia process plant, and the remaining 35.9% is to be allotted to the urea plant.

3-1-4 Allotment of fixed costs

The method of calculation of fixed costs, and method of allocating them to each plant, is as shown in Table VI-7.

Repair and maintenance costs are taken as 3% per annum of the fixed capital cost (excluding the cost of site preparation).

Land rent is allotted according to the area used for each plant, and the cost is estimated as US\$ 0.17 per square meter per annum.

Labor costs are allotted in the same way as allotment of the total capital requirement; of the 611 employees, 352 are assumed to be associated with the ammonia plant, and 259 assumed to be associated with the urea plant. The average wage rate of labor is taken to be US\$ 8,910/year (M\$ 19,602/year). Labor overhead is assumed to be 150% of labor costs.

Depreciation costs are spread over the 15 years of project life and the residual value of the Complex's various facilities after 15 years is assumed to be zero. Site preparation costs and working capital are not depreciated. Depreciation costs are used only for purposes of production cost calculation, as capital allowance is used for income tax calculation instead of the depreciation cost under Malaysian corporate tax law. Details are given in Chapter 2, 2-6, of this Part.

3-2 Manufacturing Cost of Ammonia and Urea

The breakdown of the manufacturing cost of ammonia and urea (bulk) produced in the Complex, based on the method of calculation given in the preceding section, is shown in

Tables VI-8 and VI-9. The costs calculated and shown there are costs which would obtain in Case B of the production and sales plans postulated in Chapter 2, 2-1. That is, these are the costs when the utilization of capacity is 81.6% in the ammonia plant and 90% in the urea plant. These are indicated for the point in time midway through the project life, 1990, and in 1984 price as a constant. In calculating the cost of urea, concerning the cost of ammonia used for the production of urea, the cost of ammonia obtained through these calculations was used. Because the source of outside financing for this Project has not yet been determined, annual interest rates of 6%, 5% and 4% were used. The results obtained are as follows:

Manufacturing Cost of Ammonia and Urea (bulk)
(In 1990, at constant 1984 prices)

	<u>Ammonia</u> (US\$/ton)	<u>Urea</u> (US\$/ton)
Interest 6% p.a.	155.21	140.79
Interest 5% p.a.	151.73	137.57
Interest 4% p.a.	148.31	134.43

(Interest and depreciation--15 years depreciation-- included)

As may be seen from the above figures, there is a slight difference in the manufacturing cost of both ammonia and urea, depending on which interest rate is used. As long as the assumed rates of utilization of capacity are realized, costs will be at the level of being internationally competitive.

The average rate of return on investment, obtained by applying the sales prices projected in 1984 constant prices (ammonia, US\$ 205/ton; bulk urea, US\$ 175/ton) to the above manufacturing costs are as follows:

Average Rates of Return on Investment for Ammonia and Urea

	<u>Ammonia</u>	<u>Urea</u>
Interest 6% p.a.	6.9%	13.8%
Interest 5% p.a.	7.5%	15.3%
Interest 4% p.a.	8.1%	16.8%

Notes: The Average Rate of Return (AROI) was computed on the basis of projected sales revenue and manufacturing costs in 1990 (as an average) and in the following manner:

1) AROI for ammonia:

$$\frac{\text{Net Profit before Tax for Ammonia for Sale}}{\text{Capital Cost Allocated for Ammonia for Sale Portion}}$$

2) AROI for Urea:

$$\frac{\text{Net Profit before Tax for Urea}}{\text{Capital Cost Allocated for Urea Portion}}$$

As may be seen from the above figures, although the rates of return for urea are not necessarily high, those for ammonia are considerably lower. The major reason for that is the low rate of utilization of capacity of the ammonia plant compared to the attainable rate.

Because about 70% of the total manufacturing cost of ammonia is fixed cost, the influence of the rate of use of capacity is great. As is shown in Tables VI-8 and VI-9, if the rate can be raised to 90%, the manufacturing cost of ammonia will be reduced by about US\$19.3 per ton less than the above cost. Thus, by effecting a reduction in the urea manufacturing cost of about US\$11.2 per ton, it would greatly improve the price competitiveness of the urea. This estimation is based on the assumption that the capacity utilization of ammonia plant is held at about 80%. However, as is recommended in Part II, if measures are taken to expand the demand for ammonia, it may be possible to raise the capacity utilization to 90% (see Fig. VI-3).

As may be seen from the individual price components, although it does not account for a particularly large share of the total, in comparison to conditions in other countries, the cost of utilities is high. As is recommended in Part IV, it is vital that negotiations be made with the competent government agencies, so as to reduce the cost of utilities to the lowest level possible. The sensitivity of manufacturing cost to changes in the cost of the major cost components is shown in Fig. VI-2. The sensitivity of ammonia and urea manufacturing cost to changes in the cost of natural gas and utilities may be summarized as follows:

	<u>Price change</u>	<u>Influence on the cost of ammonia (US\$/ton)</u>	<u>Influence on the cost of urea (US\$/ton)</u>
(1)	For change in the cost of natural gas of US\$ 0.10/MMBTU	3.64	2.60
(2)	For change in the cost of electric power of US\$ 0.01/KWH	0.61	1.05
(3)	For change in the cost of water of US\$ 0.01/ton	0.17	0.15

CHAPTER 4 FINANCIAL ANALYSIS

4-1 Financial Projections

Financial projections for the Project which were prepared on the basis of the assumptions stated in Chapter 2 of this Part VI, are given as Attachment at the end of this Part. At the present stage, because the source of financing for the Project has not been determined, the terms for financing are not known. The financing terms assumed by the Malaysian Government for preparing financial projections for the Project which were submitted to the ASEAN Economic Ministers to obtain their approval regarding this Project, were loan interest at the rate of 5% per annum, and repayment of the loan in equal installments in a period of 15 years (including 4 years grace period). Nevertheless, for purposes of this study, financial projections and financial analysis also use interest of 6% to 4% per annum, and the term and grace period of loan repayment is the same as used by the Malaysian Government. Table VI-10 summarizes the results of sensitivity analysis of the financial indicators which are affected by changes in major factors. Fig. VI-4 illustrates the analyzed sensitivity curve.

4-2 Financial Evaluation

Based on the prepared financial projections and financial analysis, profitability and financial position of the Project are evaluated as follows:

(1) Financial rate of return

The financial rate of return on investment for the Project was assessed in terms of the internal rate of return (IRR). The rate of return is substantially affected by changes in the quantity of production and sales. The IRR computed for each of the three alternative cases which were set regarding production and sales of the products (stated in 2-1, Chapter 2) is as shown below:

	<u>IRR before tax</u>	<u>IRR after tax</u>
Case A:	8.9%	8.4%
Case B:	9.5%	9.0%
Case C:	10.8%	10.4%

Case A is the most conservative projection. Even in this case it is anticipated that the Project can gain the rate of return over the minimum of the return rate (8%) which was agreed by the ASEAN Economic Ministers.

Case B indicates that a return rate slightly higher than that of Case A is anticipated. In this case, although the financial returns may not be said to be substantially high, it is sufficient to justify proceeding with this Project. The reason which may be indicated for this Project not having a high rate of returns is that the capacity utilization in ammonia production will be kept at the level of 80% for a long time.

Such a capacity utilization rate, lower than the highest attainable rate under usual circumstances, resulted in increase in the cost of ammonia, as is discussed in the previous chapter, thereby holding back the rate of returns. However, as is stated in Part II, there is a possibility that the quantity of sold ammonia could increase to the extent as projected in Case C. In that case, the return rate would possibly be improved.

The results of the sensitivity analysis which was made for analyzing the affect of various elements to the return rate, indicate that the major elements which will affect the returns are the sales price of urea and the total amount of required capital. The sales price used for the financial projections is based on a price projection which was made on a conservative basis regarding the future price rise, and therefore there is less probability that the future price would be lower than the projected price.

Nevertheless, even if the actual price should be lower than the projected price by US\$ 5.0/t, it is anticipated that the Project will have the IRR higher than 8%.

With regard to the capital requirement, if the actual capital cost exceeds the projected budget, it is foreseen that the return rate would be adversely affected. As a hypothesis, a capital requirement increase of 10% would result in the IRR decreasing to 7.6%. However, as far as increase in the capital cost is limited to less than 5% of the budget, the IRR will be kept at a level higher than 8%. The budget of capital requirement estimated in this study includes reasonable provisions for contingency and price escalation. Therefore, it is believed that the budget must be attainable unless there occurs significant changes in the economic environment.

As a conclusion, it is judged that this Project will gain the returns which may be

sufficient to justify investments for the Project, even though its rate is not substantially high.

(2) Profitability

As may be seen from the Projected Income Statement, in Case B, revenue from the Project will start in 1984 and is projected to increase year by year. After 1986, annual revenue of about 80 million U.S. dollars (in constant 1984 prices) may be expected. In the year following the start of commercial operation a net profit after tax will be gained and a net profit is projected to increase every year thereafter. Beyond exemption from corporate tax for the initial 10 years of tax holiday, because of the initial capital allowance and annual capital allowance exemptions, there will be no defacto tax liability for the first 12 years of complex operation.

If the interest rate is set within the range between 6% and 4% p.a., a net profit of the equivalent of about 11 to 15 million U.S. dollars, although varying depending upon which interest rate is used, will be gained in the third year of operation, and thereafter will increase. Accumulated net profit over the period of tax holiday will be the equivalent of 121 to 155 million U.S. dollars. The profitability of the Project over the project life can be indicated with the "profit after tax to sales" of about 20% and pay-out period of about 8 years.

The internal rate of return on equity is anticipated as follows:

Internal Rate of Return on Equity (IRRE)

Interest rate 6% p.a.	12.0%
Interest rate 5% p.a.	13.4%
Interest rate 4% p.a.	14.9%

In view of the above, it is anticipated that the Project can reserve profit which may assure the minimum acceptable dividend on their investment.

(3) Financial position, and debt service coverage

It is expected that the equity-debt ratio would increase steadily and reach the level

of 50/50 in 1988. Financial liquidity also would improve year by year and by 1988 the current ratio would rise beyond 3, and there would then no longer occur requirements for short-term loan. Putting aside the first year of operation, which would be the last year of the grace period, it will require 3 years to 6 years, depending on which interest rate of loan, to attain a debt service coverage ratio of 1.5 or higher. Nevertheless, even in the case of an interest rate of 6%, the debt service ratio would be 1 or more and even though initially there would be some financial difficulties, it would still be possible to service the debt. If terms softer than those used here for financial projections are obtained, certainly conditions would be improved, but in any event essentially the Project is financially self-liquidated.

To summarize the foregoing evaluation, although this Project does not have a very high level of profitability, financially it is sound and there evidently is justification for the required investment in the form of profits which can be anticipated, and therefore the Project is judged to be financially viable.

Table VI-1 PROJECTED PRODUCTION AND SALES
(CASE A)

	1984)	1985	1986	1987	1988	1989	1990 onwards
(ton)							
Ammonia (Rated Capacity: 330,000 ton/year)							
1. Ammonia Production	177,392	225,700	237,170	248,149	259,806	268,390	269,390
2. (Capacity Utilization) (%) ²⁾	(64.5 x 10/12)	(68.4)	(71.9)	(75.2)	(78.7)	(81.6)	(81.6)
3. Consumption for Urea ³⁾	167,475	214,700	226,170	237,149	248,806	268,390	258,390
4. Marketable Surplus [(1) - (3)]	9,917	11,000	11,000	11,000	11,000	11,000	11,000
5. Inventory	917	917	917	917	917	917	917
6. Increase in Inventory ⁴⁾	917	0	0	0	0	0	0
7. Sales [(4) - (6)]	9,000	11,000	11,000	11,000	11,000	11,000	11,000
Urea (Rated Capacity: 495,000 ton/year)							
8. Urea Production	288,750	370,173	389,948	408,877	428,975	445,500	445,500
9. (Capacity Utilization) (%) ⁵⁾	(70 x 10/12)	(74.8)	(78.8)	(82.6)	(86.7)	(90.0)	(90.0)
10. Inventory	28,875	30,848	32,496	34,073	35,748	37,125	37,125
11. Increase in Inventory ⁶⁾	28,875	1,973	1,648	1,577	1,675	1,377	0
12. Sales [(8) - (11)]	259,873	368,201	388,300	407,300	427,301	444,123	445,500

Notes: 1) - 6); See the notes in Table VI-3.

Table VI-2 PROJECTED PRODUCTION AND SALES
(CASE B)

	1984 ¹⁾	1985	1986	1987	1988	1989	1990 onwards
(ton)							
Ammonia (Rated Capacity: 330,000 ton/year)							
1. Ammonia Production	177,392	240,680	269,390	269,390	269,390	269,390	269,390
2. (Capacity Utilization) (%) ²⁾	(64.5 x 10/12)	(72.9)	(81.6)	(81.6)	(81.6)	(81.6)	(81.6)
3. Consumption for Urea ³⁾	167,475	229,680	258,390	258,390	258,390	258,390	258,390
4. Marketable Surplus [(1) - (3)]	9,917	11,000	11,000	11,000	11,000	11,000	11,000
5. Inventory	917	917	917	917	917	917	917
6. Increase in Inventory ⁴⁾	917	0	0	0	0	0	0
7. Sales [(4) - (6)]	9,000	11,000	11,000	11,000	11,000	11,000	11,000
Urea (Rated Capacity: 495,000 ton/year)							
8. Urea Production	288,750	396,000	445,500	445,500	445,500	445,500	445,500
9. (Capacity Utilization) (%) ⁵⁾	(70 x 10/12)	(80.0)	(90.0)	(90.0)	(90.0)	(90.0)	(90.0)
10. Inventory	28,875	33,000	37,125	37,125	37,125	37,125	37,125
11. Increase in Inventory ⁶⁾	28,875	4,125	4,125	0	0	0	0
12. Sales [(8) - (11)]	259,875	391,875	441,375	445,500	445,500	445,500	445,500

Notes: 1) - 6); See the notes in Table VI-3.

Table VI-3 PROJECTED PRODUCTION AND SALES
(CASE C)

	1984 ¹	1985	1986	1987	1988	1989	1990 onwards
(ton)							
Ammonia (Rated Capacity: 330,000 ton/year)							
1. Ammonia Production	192,500	264,000	297,000	297,000	297,000	297,000	297,000
2. (Capacity Utilization) (%) ²	(70 x 10/12)	(80.0)	(90.0)	(90.0)	(90.0)	(90.0)	(90.0)
3. Consumption for Urea ³	167,475	229,680	258,390	258,390	258,390	258,390	258,390
4. Marketable Surplus [(1) - (3)]	25,025	34,320	38,610	38,610	38,610	38,610	38,610
5. Inventory	2,503	2,860	3,218	3,218	3,218	3,218	3,218
6. Increase in Inventory ⁴	2,503	357	358	0	0	0	0
7. Sales [(4) - (6)]	22,522	33,963	38,252	38,610	38,610	38,610	38,610
Urea (Rated Capacity: 495,000 ton/year)							
8. Urea Production	288,750	396,000	445,500	445,500	445,500	445,500	445,500
9. (Capacity Utilization) (%) ⁵	(70 x 10/12)	(80.0)	(90.0)	(90.0)	(90.0)	(90.0)	(90.0)
10. Inventory	28,875	33,000	37,125	37,125	37,125	37,125	37,125
11. Increase in Inventory ⁶	28,875	4,125	4,125	0	0	0	0
12. Sales [(8) - (11)]	259,875	391,875	441,375	445,500	445,500	445,500	455,500

- Notes:
- 1) 10 months production (March to December, 1984)
 - 2) % of production against a rated capacity of 330,000 ton/year (1,000 ton/day x 330 on-stream days)
 - 3) Computed at a consumption rate of 0.58 tons of ammonia per ton of urea
 - 4) Increase in ammonia inventory against the previous year
 - 5) % of production against a rated capacity of 495,000 ton/year (1,500 ton/day x 330 on-stream days)
 - 6) Increase in urea inventory against the previous year

Table VI-4 PROJECTED EX-FACTORY PRICE OF UREA AND AMMONIA

	1979/80	80/81	81/82	82/83	83/84	84/85	85/86	86/87
(US\$/t)								
<u>Urea</u>								
C&F Price								
(Bag)	204	206	208	210	213	216	220	235
FOB Price								
(Bulk)	175	175	175	175	175	176	178	191
<u>Ammonia</u>								
FOB Price								
	-	-	-	-	204	206	228	253

Table VI-5 PAST PRICE TREND OF CRUDE OIL AND FUEL OIL APPLIED
TO CALCULATION OF NATURAL GAS PRICE ESCALATION

	Kuwait Crude (31.00 - 31.09 API ²)		Miri Light Crude		Medium Fuel Oil (Pulau Bukom (Shell))	
	Price (US\$/BBL)	Rate of increase against previous year (%)	Price (US\$/BBL)	Rate of increase against previous year (%)	Price (US\$/BBL)	Rate of increase against previous year (%)
Jan. 1969	1.59				1.84	
1970	1.59	0			1.95	6.0
1971	1.68	5.7			2.55	30.8
1972	2.373	41.25			2.71	6.3
1973	2.482	4.59			2.71	0
Jan. 1974	11.545	365.15			9.80	261.62
1975	10.365				10.71	9.29
1976	11.300	9.02	12.50		10.78	0.65
1977	12.370	9.47	14.00	12.00	12.16	12.80
1978	12.270	-0.81	14.20	1.43	12.00	-1.32
1979	12.831	4.57	15.05	5.99	N.A.	
Average of the annual rate of increase		5.56% (1979/75)		6.25% (1979/76)		5.23% (1978/74)
Simple average of the annual rate of increase				5.68%		

Notes: 1) Posted or tax reference prices for Medium fuel oil and Kuwait crude before 1974
2) Official selling prices for Kuwait crude after 1975
3) Standard selling prices for Miri light crude

Sources: Annual Statistical Bulletin, OPEC.
Petroleum Intelligence Weekly.

Table VI-6 PRODUCTION COST ITEMS FOR VARIABLE COST
(In the Beginning of 1984 Prices)

	<u>Ammonia</u>	<u>Urea</u>
<u>Ammonia (at cost from the ammonia plant)</u>		
Consumption (ton/t)	-	0.58
<u>Carbon Dioxide (free of charge from the ammonia plant)</u>		
Consumption (ton/t)	-	0.76
<u>Natural Gas (US\$ 0.98/MMBTU)</u>		
Consumption (MMBTU/t)		
Process Use	34.37	-
Allotment	<u>1.99</u>	<u>4.91</u>
	36.36	4.91
Cost (US\$/t)	(35.633)	(4.814)
<u>Electricity (US\$ 0.06/KWH)</u>		
Consumption (KWH/t)		
Process Use	12.00	35.00
Allotment	<u>49.20</u>	<u>34.90</u>
	61.20	69.90
Cost (US\$/t)	(3.672)	(4.195)
<u>Water Make-up (US\$ 0.28/m³)</u>		
Consumption (m ³ /t)		
Process Use	-	-
Allotment	<u>16.56</u>	<u>4.72</u>
	16.56	4.72
Cost (US\$/t)	(4.637)	(1.322)
<u>Catalyst, Chemicals & Lubricant Oil</u>		
Cost (US\$/t)		
Process Use	2.746	0.286
Allotment	<u>1.887</u>	<u>0.514</u>
	(4.633)	(0.800)

Notes: Consumption and Cost; Requirement and expenditure per ton of product.
 Process use; Directly used by the process plants.
 Allotment; Materials allotted for the process plants, which are consumed by utility and offsite facilities.

**Table VI-7 PRODUCTION COST ITEMS FOR CAPITAL COST AND
FIXED COST (In Beginning of 1984 Prices)**

<u>Capital Cost (US\$ '000)</u>		<u>Ammonia</u>	<u>Urea</u>	<u>Total</u>
a)	Site Preparation	4,380	4,380	8,760
b)	Erected Plant Cost	164,230	91,690	255,920
c)	Pre-operation Expenses	7,130	3,050	10,180
d)	Initial Working Capital	6,000	2,570	8,570
e)	Total Project Cost	<u>181,740</u>	<u>101,690</u>	<u>283,430</u>
		(64.1%)	(35.9%)	(100%)
f)	Interest during Const.			
	(6%)	13,000	7,530	20,530
	(5%)	10,710	6,200	16,910
	(4%)	8,460	4,910	13,370

Maintenance Cost: Allow 3% of the capital cost except the site preparation and the initial working capital as a maintenance material cost per year.

Land Rent: 20 ha for the ammonia plant and 20 ha for the urea plant at rental cost US\$ 0.17/m² a year.

Labour Cost: 352 persons for the ammonia plant and 259 persons for the urea plant at average labour cost US\$ 8,910 a man-year.

Overhead: Allow 150% of the labour cost including expenses for travel, communication, medical supplies, subscriptions, publications, association dues, sundry, ceremonial, non-factory labour and general supplies.

Depreciation: A 15-year straight line method is applied for the fixed capital except site preparation cost.

On the income tax calculation, the capital allowance is used in stead of the depreciation cost.

Labour Cost for the Plant Operation

	(1) Nos. of persons	(2) Unit Monthly rate (M\$/month)	(3) Total (1) x (2) (M\$/month)
Director	1	9,800	9,800
Manager	31	5,600	173,600
Intendant	79	3,100	244,900
Foreman	157	2,100	329,700
Worker	<u>343</u>	700	<u>240,100</u>
Total	611		998,100

Average Labour Cost:

M\$ 998,100/month ÷ 611 men	=	M\$ 1,633.6/man-month
	=	US\$ 742.5/man-month
M\$ 1,633.6/man-month x 12 months	=	M\$ 19,602.6/man-year
	=	US\$ 8,910.3/man-year

Table VI-8 PROJECTED PRODUCTION COST (AMMONIA) (In 1990; 1984 Constant Price)

(Annual Cost: US\$ '000; Unit Cost: US\$ per ton)

	Base Projection						Sensitivity affected by changes in capacity utilization						
	(Ammonia production: 269,390 tons per annum, Capacity utilization 81.6%)												
	(Interest: 6%/ann.)		(Interest: 5%/ann.)		(Interest: 4%/ann.)		70 %		80 %		90 %		
Annual Cost	Unit Cost	Annual Cost	Unit Cost	Annual Cost	Unit Cost	Annual Cost	Unit Cost	Annual Cost	Unit Cost	Annual Cost	Unit Cost		
A. Variable Cost													
Natural Gas	9,599.12	35.63	9,599.12	35.63	9,599.12	35.63	24.0	35.63	21.6	35.63	23.7	35.63	25.6
Electricity	989.20	3.67	989.20	3.67	989.20	3.67	2.5	3.67	2.3	3.67	2.4	3.67	2.7
Water (make-up)	1,249.10	4.64	1,249.10	4.64	1,249.10	4.64	3.1	4.64	2.8	4.64	3.1	4.64	3.3
Catalyst & chemicals	1,248.08	4.63	1,248.08	4.63	1,248.08	4.63	3.1	4.63	2.8	4.63	3.1	4.63	3.3
Sub-total	13,085.50	48.57	13,085.50	48.57	13,085.50	48.57	32.7	48.57	29.5	48.57	32.3	48.57	34.9
B. Fixed Cost													
Maintenance & repair	4,670.70	17.34	4,670.70	17.34	4,670.70	17.34	11.7	20.22	12.3	17.70	11.8	15.73	11.3
Labour	3,136.32	11.64	3,136.32	11.64	3,136.32	11.64	7.8	13.58	8.2	11.88	7.9	10.56	7.6
Overhead	4,704.48	17.46	4,704.48	17.46	4,704.48	17.46	11.8	20.36	12.3	17.82	11.8	15.84	11.4
Land rent	34.00	0.13	34.00	0.13	34.00	0.13	0.1	0.15	0.1	0.13	0.1	0.12	0.1
Sub-total	12,545.50	46.57	12,545.50	46.57	12,545.50	46.57	31.4	54.31	32.9	47.53	31.6	42.25	30.4
C. Direct running Cost													
(A + B)	25,631.00	95.14	25,631.00	95.14	25,631.00	95.14	64.1	102.88	62.4	96.10	63.9	90.82	65.3
D. Depreciation	11,721.33	43.51	11,568.66	42.94	11,418.66	42.39	28.6	49.43	30.0	43.25	28.8	38.45	27.7
E. Interest on loans	4,461.00	16.56	3,674.00	13.64	2,905.00	10.78	7.3	12.58	7.6	11.00	7.3	9.78	7.0
F. Production Cost													
(C + D + E)	41,813.32	155.21	40,873.66	151.73	39,954.66	148.31	100.0	164.89	100.0	150.35	100.0	139.04	100.0

Notes: 1) Natural gas price: US\$ 0.98/MMBTU. If the gas price is lowered by US\$ 0.10/MMBTU, the ammonia production cost will be lowered by about US\$ 3.64 per ton of ammonia (@US\$ 0.10 x 36.36 MMBTU).
 2) Electricity price: US\$ 0.06/KWH. If the electricity price is lowered by US\$ 0.01/KWH, the ammonia production cost will be lowered by about US\$ 0.61 per ton of ammonia (@US\$ 0.01 x 61.20 KWH).
 3) Water price: US\$ 0.28/ton. If the water price is lowered by US\$ 0.01/ton, the ammonia production cost will be lowered by about US\$ 0.17 per ton of ammonia (@US\$ 0.01 x 16.56 tons).

Table VI-9 PROJECTED PRODUCTION COST (UREA-BULK) (In 1990; 1984 Constant Price)

(Annual Cost: US\$ '000; Unit Cost: US\$ per ton)

	Base Projection						Sensitivity affected by changes in capacity utilization								
	(Urea production: 445,500 tons per annum, Capacity utilization 90%)						(Interest: 4%/ann.)								
	(Interest: 6%/ann.)		(Interest: 5%/ann.)		(Interest: 4%/ann.)		70%		80%		90%				
Annual Cost	Unit Cost	Annual Cost	Unit Cost	Annual Cost	Unit Cost	Annual Cost	Unit Cost	Annual Cost	Unit Cost	Annual Cost	Unit Cost	%			
A. Variable Cost															
Ammonia (Raw material)	40,105.91	90.02	64.0	39,204.62	88.00	64.0	38,323.14	86.02	64.0	95.64	61.8	87.20	62.2	80.64	62.5
Natural gas (for fuel)	2,144.53	4.81	3.4	2,144.53	4.81	3.5	2,144.53	4.81	3.6	4.81	3.1	4.81	3.4	4.81	3.7
Electricity	1,868.43	4.20	3.0	1,868.43	4.20	3.0	1,868.43	4.20	3.1	4.20	2.7	4.20	3.0	4.20	3.3
Water (make-up)	588.77	1.32	0.9	588.77	1.32	1.0	588.77	1.32	1.0	1.32	0.9	1.32	0.9	1.32	1.0
Catalyst & chemicals	356.40	0.80	0.6	356.40	0.80	0.6	356.40	0.80	0.6	0.80	0.5	0.80	0.6	0.80	0.6
Sub-total	45,064.04	101.15	71.9	44,162.75	99.13	72.1	43,281.27	97.15	72.3	106.77	69.0	98.33	70.1	91.77	71.1
B. Fixed Cost															
Maintenance & repair	2,683.80	6.02	4.3	2,683.80	6.02	4.4	2,683.80	6.02	4.5	7.75	5.0	6.78	4.8	6.02	4.7
Labour	2,307.69	5.18	3.7	2,307.69	5.18	3.8	2,307.69	5.18	3.8	6.66	4.3	5.83	4.2	5.18	4.0
Overhead	3,461.53	7.77	5.5	3,461.53	7.77	5.6	3,461.53	7.77	5.8	9.99	6.5	8.74	6.2	7.77	6.0
Land rent	34.00	0.08	(*)	34.00	0.08	(*)	34.00	0.08	0.1	0.10	0.1	0.08	0.1	0.08	0.1
Sub-total	8,487.02	19.05	13.5	8,487.02	19.05	13.8	8,487.02	19.05	14.2	24.50	15.9	21.43	15.3	19.05	14.8
C. Direct running Cost															
(A + B)	53,551.06	120.20	85.4	52,649.77	118.18	85.9	51,768.29	116.20	86.5	131.27	84.9	119.76	85.4	110.82	85.9
D. Depreciation															
	6,669.32	14.97	10.6	6,580.66	14.77	10.7	6,494.66	14.58	10.8	18.74	12.1	16.40	11.7	14.58	11.3
E. Interest on loans															
	2,502.00	5.62	4.0	2,060.00	4.62	3.4	1,628.00	3.65	2.7	4.70	3.0	4.11	2.9	3.65	2.8
F. Production Cost															
(C+D+E)	62,722.38	140.79	100.0	61,290.43	137.57	100.0	59,890.95	134.43	100.0	154.71	100.0	140.27	100.0	129.05	100.0

Notes: 1) Natural gas price: US\$ 0.98/MMBTU. If the gas price is lowered by US\$ 0.10/MMBTU, the urea production cost will be lowered by about US\$ 2.60 per ton of urea (@US\$ 0.10 x 4.912) + (US\$ 3.64 x 0.58).

2) Electricity price: US\$ 0.06/KWH. If the electricity price is lowered by US\$ 0.01/KWH, the urea production cost will be lowered by about US\$ 1.05 per ton of urea (@US\$ 0.01 x 69.9) + (@US\$ 0.61 x 0.58).

3) Water price: US\$ 0.28/ton. If the water price is lowered by US\$ 0.01/ton, the urea production cost will be lowered by about US\$ 0.15 per ton of urea (@US\$ 0.01 x 4.72) + (@US\$ 0.17 x 0.58).

**Table VI-10 SENSITIVITY OF FINANCIAL INDICATORS (1)
(AFTER TAX: Case B)**

By Changes in Urea Sales Price

Sales Price: Urea (Bulk)		US\$ 160/t	US\$ 175/t	US\$ 190/t	US\$ 205/t
: Ammonia		US\$ 205/t	US\$ 205/t	US\$ 205/t	US\$ 205/t
			(Base Pro- jection)		
(1)	I.R.R. (%)	6.7	9.0	11.1	13.1
(2)	Pay-out Period (years)	9.3	7.8	6.8	6.1
(3)	Net Profit against Sales Revenue (Average for 15 years) (%)	13.2	19.6	25.1	29.7
(4)	Debt Service Coverage Ratio (DSR)				
	1st year (1984)	2.67	3.23	3.80	4.36
	2nd year	1.04	1.26	1.48	1.69
	3rd year	1.30	1.55	1.80	2.05
	(Average for 12 years)	(1.57)	(1.89)	(2.18)	(2.49)
	(Average for 11 years)*	(1.47)	(1.75)	(2.04)	(2.32)
(5)	Capacity Utilization at Break-Even Point (Profit) (%)				
	1st year	77.2	68.9	62.4	56.8
	Average for 15 years	68.5	61.2	55.2	50.4
(6)	Capacity Utilization at Break-Even Point (Cash) (%)				
	1st year	78.8	70.3	63.6	58.1
	Average for 15 years	62.3	55.6	50.2	45.8
(7)	Ending Cash Balance for Initial 3 years (US\$ million)				
	1st year	16.90	20.79	24.69	28.59
	2nd year	17.68	27.46	37.23	47.01
	3rd year	25.20	41.60	57.99	74.39

Note: * Excluding 1st year which is in the grace period.

Table VI-10 SENSITIVITY OF FINANCIAL INDICATORS (2)
(AFTER TAX: Case B)

By Changes in Natural Gas Price

Natural Gas Price: (US\$/MMBTU)		0.70	0.85	0.98 (Base Projection)
(1)	I.R.R. (%)	10.1	9.5	9.0
(2)	Pay-out Period (years)	7.3	7.6	7.8
(3)	Net Profit against Sales Revenue (Average for 15 years) (%)	23.4	21.4	19.6
(4)	Debt Service Coverage Ratio (DSR)			
	1st year (1984)	3.52	3.37	3.23
	2nd year	1.37	1.31	1.26
	3rd year	1.67	1.61	1.55
	(Average for 12 years)	(2.03)	(1.95)	(1.89)
	(Average for 11 years)*	(1.89)	(1.82)	(1.75)
(5)	Capacity Utilization at Break-Even Point (Profit) (%)			
	1st year	65.6	67.4	68.9
	Average for 15 years	58.0	59.7	61.2
(6)	Capacity Utilization at Break-Even Point (Cash) (%)			
	1st year	66.8	68.6	70.3
	Average for 15 years	52.7	54.2	55.6
(7)	Ending Cash Balance for Initial 3 years (US\$ million)			
	1st year	22.78	21.71	20.79
	2nd year	32.40	29.75	27.46
	3rd year	49.87	45.44	41.60

Note: * Excluding 1st year which is in the grace period.

Table VI-10 SENSITIVITY OF FINANCIAL INDICATORS (3)
(AFTER TAX: Case B)

By Changes in Utility Price

Utility Price:	Electricity Water	US\$ 0.06/KWH US\$ 0.28/t (Base Projection)				
		- 20%	- 10%		+ 10%	+ 20%
(1)	I.R.R. (%)	9.3	9.2	9.0	8.9	8.7
(2)	Pay-out Period (years)	7.7	7.8	7.8	7.9	8.0
(3)	Net Profit against Sales Revenue (Average for 15 years) (%)	20.7	20.2	19.6	19.1	18.6
(4)	Debt Service Coverage Ratio (DSR)					
	1st year (1984)	3.31	3.27	3.23	3.19	3.15
	2nd year	1.29	1.28	1.26	1.25	1.23
	3rd year	1.58	1.57	1.55	1.53	1.51
	(Average for 12 years)	(1.92)	(1.90)	(1.89)	(1.85)	(1.83)
	(Average for 11 years)*	(1.79)	(1.77)	(1.75)	(1.73)	(1.71)
(5)	Capacity Utilization at Break-Even Point (Profit) (%)					
	1st year	67.9	68.4	68.9	69.6	70.1
	Average for 15 years	60.3	60.7	61.2	61.6	62.1
(6)	Capacity Utilization at Break-Even Point (Cash) (%)					
	1st year	69.3	69.8	70.3	71.0	71.4
	Average for 15 years	53.8	55.2	55.6	56.0	56.4
(7)	Ending Cash Balance for Initial 3 years (US\$ million)					
	1st year	21.35	21.07	20.79	20.52	20.24
	2nd year	28.84	28.15	27.46	26.77	26.08
	3rd year	43.91	42.75	41.60	40.44	39.28

Note: *Excluding 1st year which is in the grace period.

Table VI-10 SENSITIVITY OF FINANCIAL INDICATORS (4)
(AFTER TAX: Case B)

By Changes in Capital Requirements

Capital Requirements	- 20%	- 10%	Base Projection	+ 10%	+ 20%
(1) I.R.R. (%)	12.7	10.7	9.0	7.6	6.3
(2) Pay-out Period (years)	6.2	7.0	7.8	8.7	9.6
(3) Net Profit against Sales Revenue (Average for 15 years) (%)	26.5	23.1	19.6	16.2	12.7
(4) Debt Service Coverage Ratio (DSR)					
1st year (1984)	4.19	3.66	3.23	2.89	2.60
2nd year	1.64	1.43	1.26	1.12	1.01
3rd year	2.00	1.75	1.55	1.38	1.25
(Average for 12 years)	(2.43)	(2.12)	(1.89)	(1.67)	(1.51)
(Average for 11 years)*	(2.27)	(1.98)	(1.75)	(1.56)	(1.41)
(5) Capacity Utilization at Break-Even Point (Profit) (%)					
1st year	59.2	64.1	68.9	74.0	78.8
Average for 15 years	52.8	57.0	61.2	65.3	69.5
(6) Capacity Utilization at Break-Even Point (Cash) (%)					
1st year	60.3	65.4	70.3	75.4	80.5
Average for 15 years	48.4	52.0	55.6	59.2	62.8
(7) Ending Cash Balance for Initial 3 years (US\$ million)					
1st year	21.69	21.24	20.79	20.35	19.89
2nd year	35.27	31.36	27.46	23.56	19.65
3rd year	56.17	48.88	41.60	34.32	27.02

Note: *Excluding 1st year which is in the grace period.

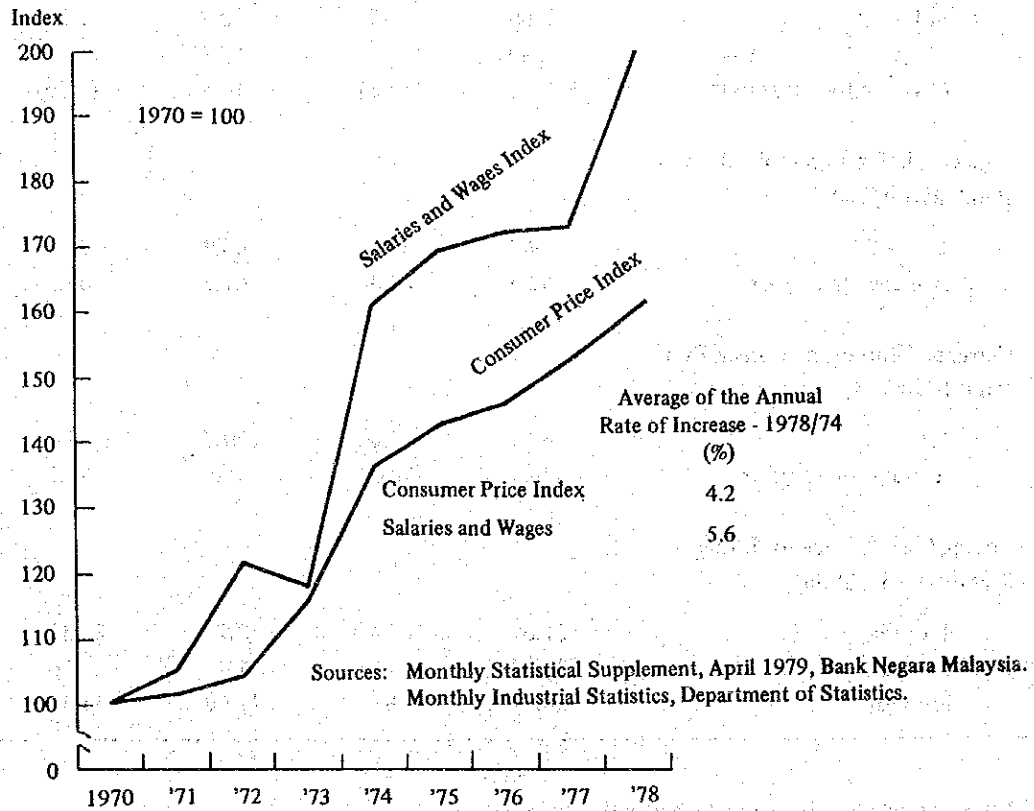
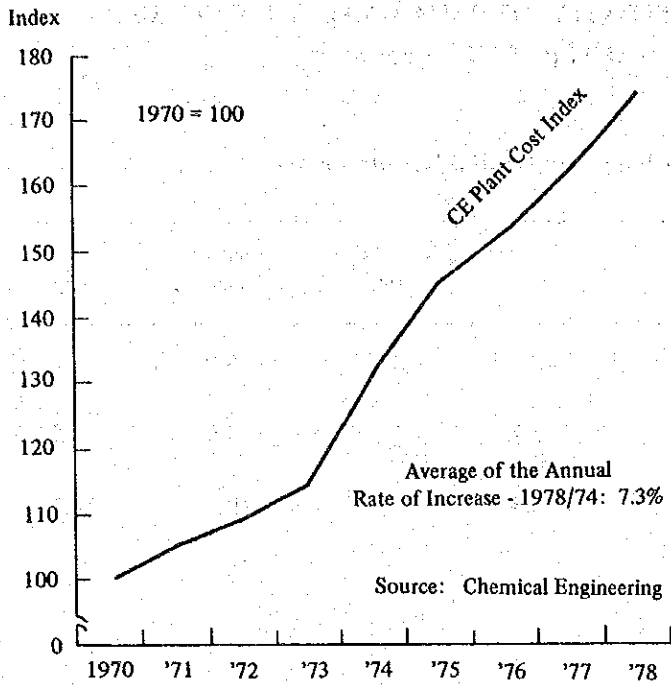


Fig. VI-1 PRICE TRENDS IN MALAYSIA

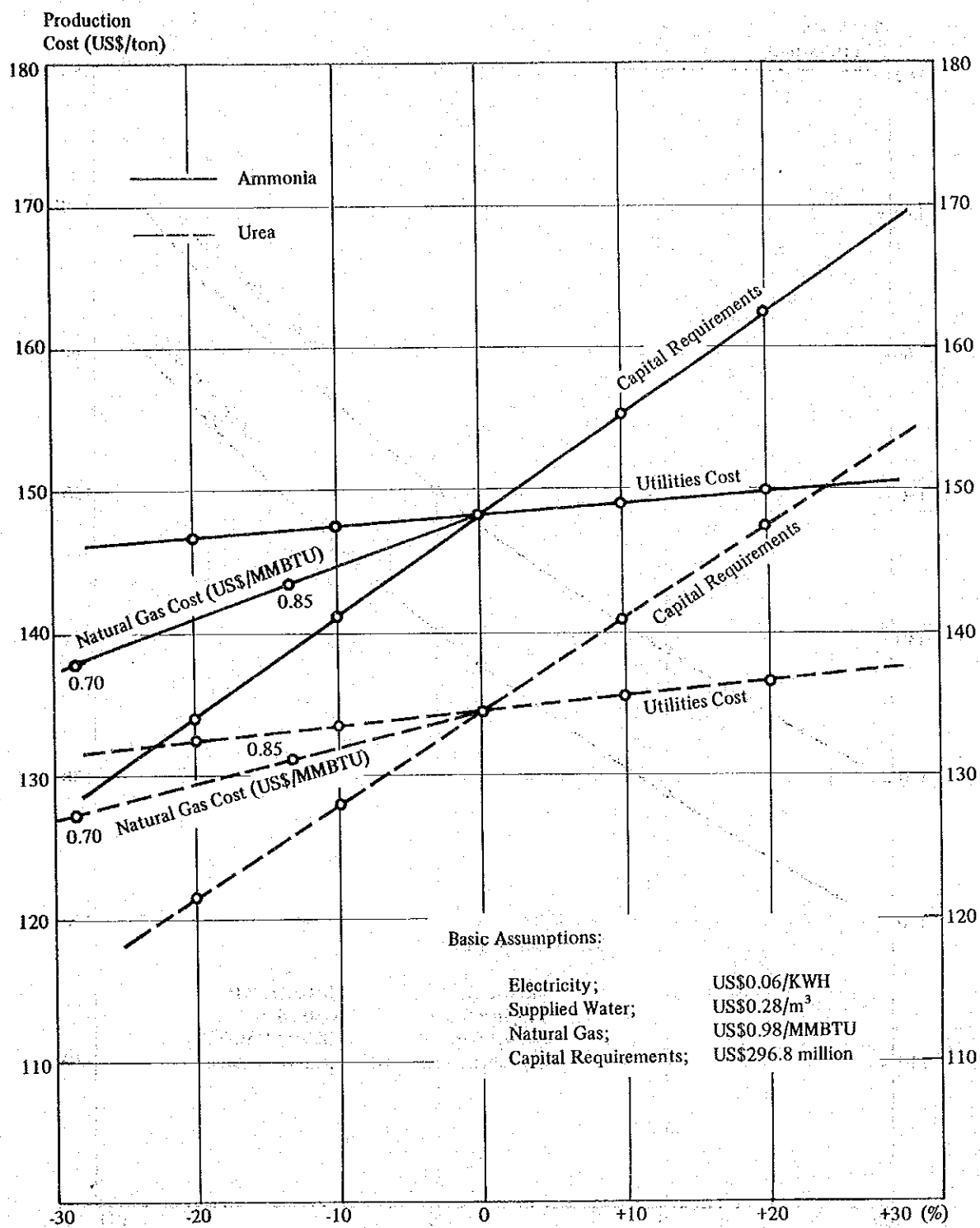


Fig. VI-2 SENSITIVITY TEST ON MAJOR COST FACTORS
 (Case B)

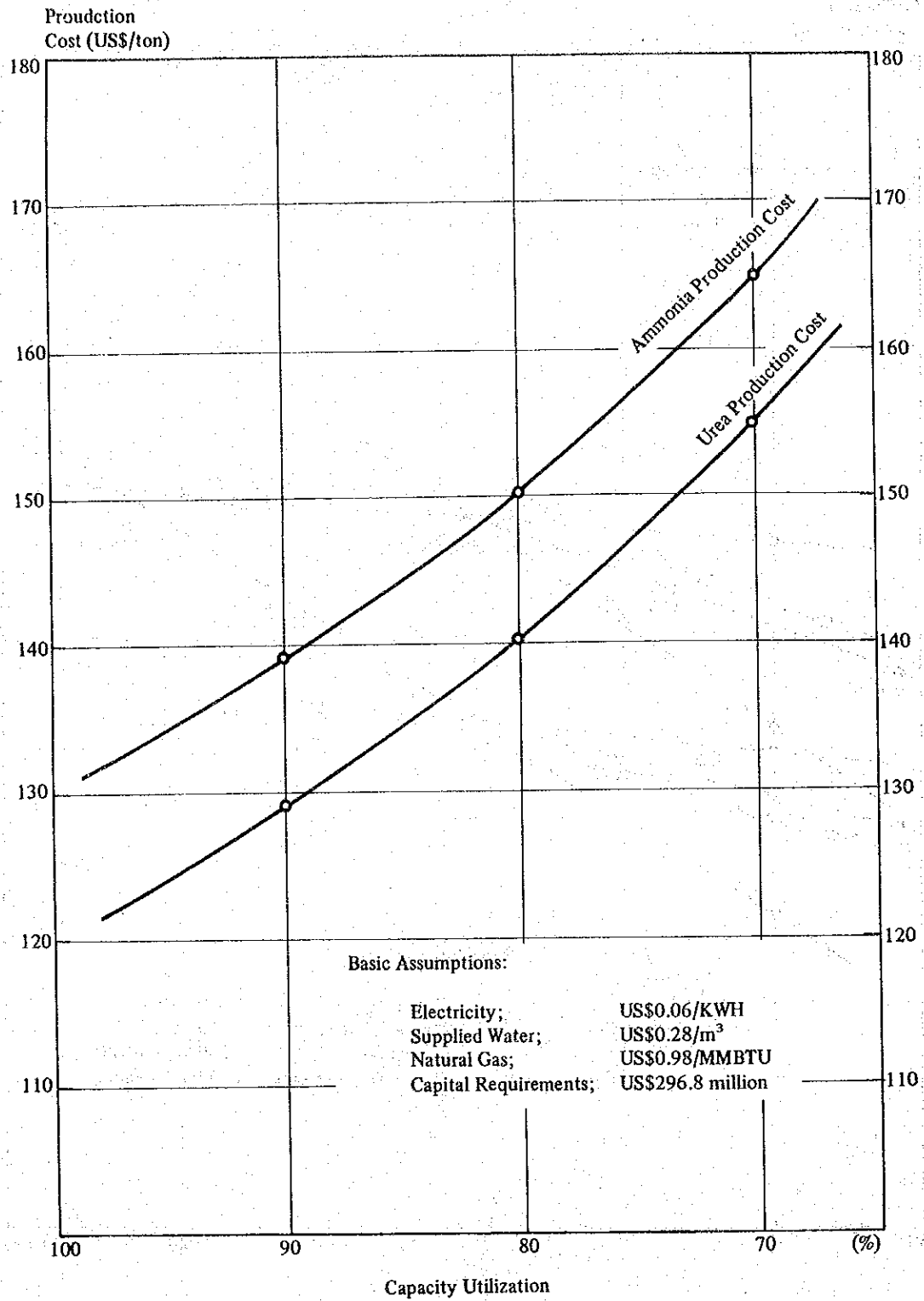


Fig. VI-3 SENSITIVITY TEST ON CAPACITY UTILIZATION

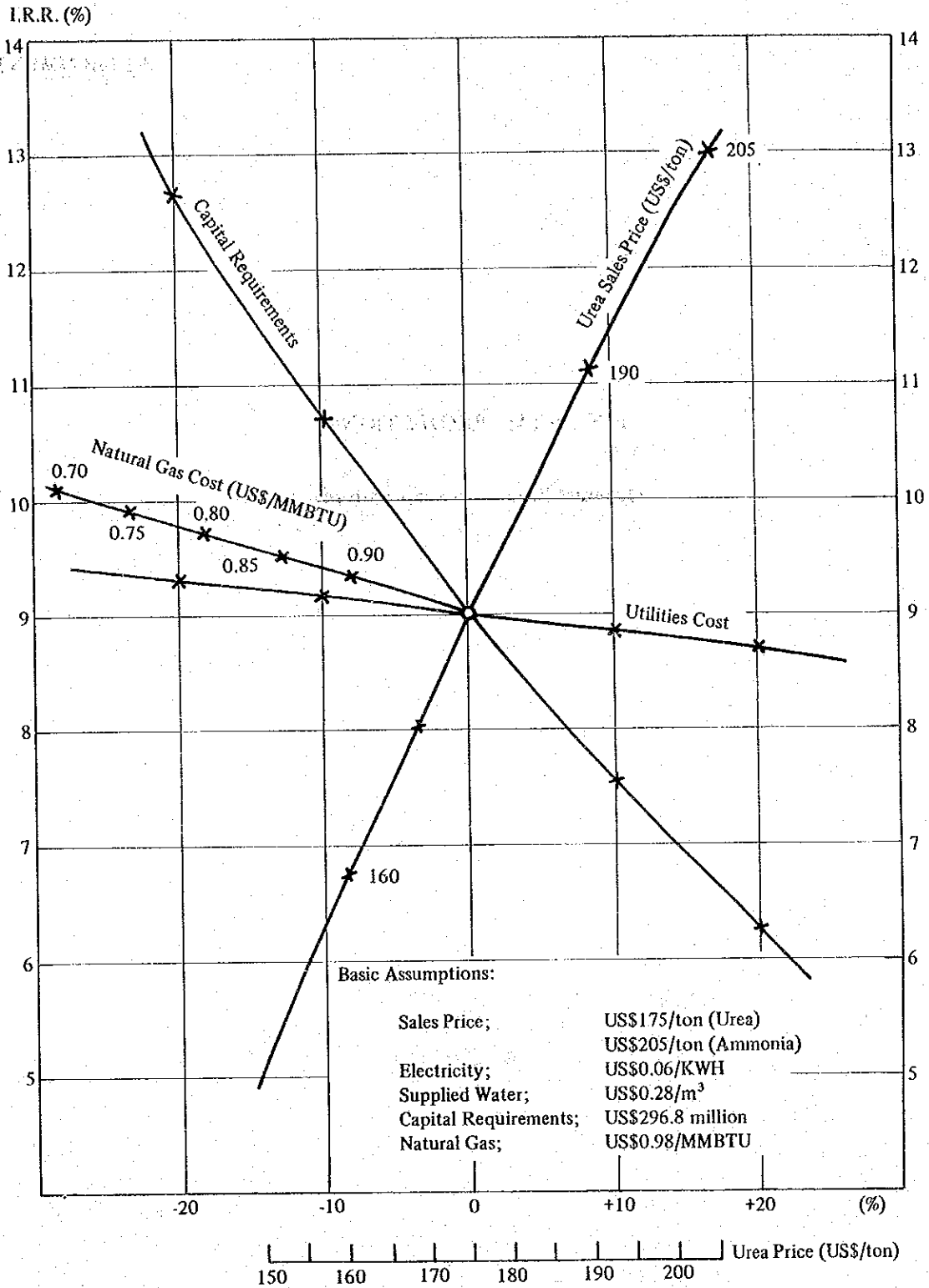


Fig. VI-4 SENSITIVITY TEST ON THE MAJOR ECONOMIC FACTORS
(Case B)

FINANCIAL PROJECTIONS

(Interest Rate: 6% per annum)

*** ASPAN UREA FERTILIZER PROJECT (MALAYSIA) ***
 INCOME STATEMENTS (FOR YEARS ENDING DECEMBER 31)
 UREA : WORLD AMMONIA : DOMESTIC
 UNIT: (US\$000)

	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994
PRODUCTION AND SALES											
PRODUCTION	288750.	396000.	445500.	445500.	445500.	445500.	445500.	445500.	445500.	445500.	445500.
INCREASE IN INVENTORIES	28975.	4125.	4125.	0.	0.	0.	0.	0.	0.	0.	0.
SALES VOLUME	259875.	391875.	441375.	445500.	445500.	445500.	445500.	445500.	445500.	445500.	445500.
SALES REVENUE											
SALES REVENUE	47323.	70933.	79496.	80217.	80217.	80217.	80217.	80217.	80217.	80217.	80217.
MAIN PRODUCTS											
BY-PRODUCTS	45478.	68578.	77241.	77962.	77962.	77962.	77962.	77962.	77962.	77962.	77962.
	1845.	2255.	2255.	2255.	2255.	2255.	2255.	2255.	2255.	2255.	2255.
COST OF SALES											
COST OF SALES	40215.	54943.	56935.	57467.	57467.	57467.	57467.	57467.	57467.	57467.	57467.
VARIABLE COST											
VARIABLE COST	11831.	16099.	18044.	18044.	18044.	18044.	18044.	18044.	18044.	18044.	18044.
DEPRECIATION & AMORTIZATION	15226.	18391.	18391.	18391.	18391.	18391.	18391.	18391.	18391.	18391.	18391.
OTHER FIXED COST	17527.	21033.	21033.	21033.	21033.	21033.	21033.	21033.	21033.	21033.	21033.
(INCL. IN PRODUCT INVENTORIES)	-4468.	-578.	-532.	0.	0.	0.	0.	0.	0.	0.	0.
GROSS PROFIT OR (LOSS) ON SALES											
GROSS PROFIT OR (LOSS) ON SALES	7108.	15680.	22500.	22750.	22750.	22750.	22750.	22750.	22750.	22750.	22750.
LESS: SALES EXPENSES											
LESS: SALES EXPENSES	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
OPERATING PROFIT OR (LOSS)											
OPERATING PROFIT OR (LOSS)	7108.	15980.	22560.	22750.	22750.	22750.	22750.	22750.	22750.	22750.	22750.
LESS: INTEREST											
ON LONG TERM DEBT	10639.	12765.	11606.	10445.	9285.	8124.	6963.	5803.	4642.	3482.	2321.
ON SHORT TERM DEBT	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
NET PROFIT OR (LOSS) BEFORE TAX											
NET PROFIT OR (LOSS) BEFORE TAX	-3530.	3123.	10955.	12305.	13466.	14626.	15787.	16947.	18108.	19268.	20429.
LESS: INCOME TAX											
LESS: INCOME TAX	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
NET PROFIT OR (LOSS) AFTER TAX											
NET PROFIT OR (LOSS) AFTER TAX	-3530.	3123.	10955.	12305.	13466.	14626.	15787.	16947.	18108.	19268.	20429.

*** ASPEN UREA FERTILIZER PROJECT (MALAYSIA) ***
 INCOME STATEMENTS (FOR YEARS ENDING FEBRUARY 28)
 (CASE R-6) UREA - WORLD AMMONIA - DOMESTIC UNIT: (US\$000)

	1995	1996	1997	1998
PRODUCTION AND SALES				
PRODUCTION	445500.	445500.	445500.	445500.
INCREASE IN INVENTORIES	0.	0.	0.	0.
SALES VOLUME	445500.	445500.	445500.	445500.
SALES REVENUE				
MAIN PRODUCTS	80217.	80217.	80217.	80217.
BY-PRODUCTS	77962.	77962.	77962.	77962.
	2255.	2255.	2255.	2255.
COST OF SALES				
VARIABLE COST	57467.	57467.	57467.	57467.
DEPRECIATION & AMPLTIZATION	18044.	18044.	18044.	18044.
OTHER FIXED COST	18391.	18391.	18391.	18391.
(INCL. IN PRODUCT INVENTORIES)	21033.	21033.	21033.	21033.
	0.	0.	0.	0.
GROSS PROFIT OR (LOSS) ON SALES				
	22750.	22750.	22750.	22750.
LESS: SALES EXPENSES				
	0.	0.	0.	0.
OPERATING PROFIT OR (LOSS)				
	22750.	22750.	22750.	22750.
LESS: INTEREST				
ON LONG TERM DEBT	1161.	0.	0.	0.
ON SHORT TERM DEBT	0.	0.	0.	0.
NET PROFIT OR (LOSS) BEFORE TAX				
	21590.	22750.	22750.	22750.
LESS: INCOME TAX				
	0.	3896.	13699.	14215.
NET PROFIT OR (LOSS) AFTER TAX				
	21590.	18855.	9051.	8536.

***ASIAN UREA FERTILIZER PROJECT (MALAYSIA) ***
 FUNDS FLOW STATEMENTS (FOR YEARS ENDING DECEMBER 31)
 UREA: WOPLD AMMONIA: DOMESTIC UNIT: (US\$000)

	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991
SOURCES OF FUNDS											
CASH GENERATED FROM OPERATION	91188.	121594.	60792.	54013.	34439.	41113.	41141.	41141.	41141.	41141.	41141.
PROFIT BEFORE TAX, INTEREST	0.	0.	0.	22434.	34280.	40951.	41141.	41141.	41141.	41141.	41141.
DEPRECIATION & AMORTIZATION	0.	0.	0.	7108.	15890.	22560.	22750.	22750.	22750.	22750.	22750.
FINANCIAL RESOURCES	91188.	121594.	60792.	30396.	0.	0.	0.	18391.	18391.	18391.	18391.
SHAPE CAPITAL	27356.	36475.	18238.	9119.	0.	0.	0.	0.	0.	0.	0.
LONG TERM DEBT	63832.	85100.	42554.	21277.	0.	0.	0.	0.	0.	0.	0.
SHORT TERM DEBT	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
INCREASE IN ACCT. PAYABLE	0.	0.	0.	1183.	158.	162.	0.	0.	0.	0.	0.
USES OF FUNDS											
INVESTMENT IN FIXED ASSET	86717.	113957.	66486.	50836.	34443.	32564.	29878.	28627.	27467.	26306.	25146.
LAND AND SITE IMPROVEMENT	7008.	1752.	0.	0.	0.	0.	0.	0.	0.	0.	0.
CONSTRUCTED FACILITIES	73545.	98060.	49030.	24515.	0.	0.	0.	0.	0.	0.	0.
PRE-INVST. & START-UP EXP	1018.	3054.	5090.	1018.	0.	0.	0.	0.	0.	0.	0.
INTEREST PUKING CONSTRUCTN	1915.	6883.	10212.	2020.	0.	0.	0.	0.	0.	0.	0.
INCREASE IN CURRENT ASSET	3231.	4398.	2154.	12644.	2334.	1615.	90.	0.	0.	0.	0.
OTHER THAN CASH	0.	0.	0.	7098.	1756.	1083.	90.	0.	0.	0.	0.
INCR(DECR) ACCT RECEIVABLE	0.	0.	0.	4468.	578.	532.	-0.	0.	0.	0.	0.
INCR(DECR) IN INVENTORIES	0.	0.	0.	1077.	0.	0.	0.	0.	0.	0.	0.
PRODUCTS	3231.	4398.	2154.	10639.	32139.	50942.	29788.	28627.	27467.	26306.	25146.
MATERIALS	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
SERVICES	0.	0.	0.	0.	19343.	19343.	19343.	19343.	19343.	19343.	19343.
REPAYMENT OF LONG TERM DEBT	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
REPAYMENT OF SHORT TERM DEBT	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
INTEREST ON LONG TERM DEBT	0.	0.	0.	10634.	12766.	11606.	10445.	9285.	8124.	6963.	5803.
INTEREST ON SHORT TERM DEBT	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
INCOME TAX PAYMENT	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
DIVIDENDS PAYMENT	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
CASH INCREASE OR (DECREASE)	4471.	8027.	-5694.	3177.	-4.	8550.	11263.	12513.	13674.	14834.	15995.
BEGINNING CASH BALANCE	0.	4471.	12498.	6804.	9981.	9977.	18527.	29789.	42302.	55976.	70811.
ENDING CASH BALANCE	4471.	12498.	6804.	9981.	9977.	18527.	29789.	42302.	55976.	70811.	86806.

*** ASPAN UREA FERTILIZER PROJECT (MALAYSIA) ***
 FUND FLOW STATEMENTS (FOR YEARS ENDING FEBRUARY 31)
 UREA : WPLD : AMMONIA : DOMESTIC UNIT : (US\$000)

(CASE 9-6)

	1992	1993	1994	1995	1996	1997	1998
SOURCES OF FUNDS							
CASH GENERATED FROM OPERATION	41141.	41141.	41141.	41141.	41141.	41141.	41141.
PROFIT BEFORE TAX, INTEREST DEPRECIATION & AMORTIZATION	22750.	22750.	22750.	22750.	22750.	22750.	22750.
FINANCIAL RESOURCES	18391.	18391.	18391.	18391.	18391.	18391.	18391.
SHAKE CAPITAL	0.	0.	0.	0.	0.	0.	0.
LONG TERM DEBT	0.	0.	0.	0.	0.	0.	0.
SHORT TERM DEBT	0.	0.	0.	0.	0.	0.	0.
INCREASE IN ACCT PAYABLE	0.	0.	0.	0.	0.	0.	0.
USES OF FUNDS							
INVESTMENT IN FIXED ASSET	23985.	22925.	21664.	20503.	0.	3896.	13699.
LAND AND SITE IMPROVEMENT	0.	0.	0.	0.	0.	0.	0.
CONSTRUCTED FACILITIES	0.	0.	0.	0.	0.	0.	0.
PRE-INVEST. & START-UP EXP	0.	0.	0.	0.	0.	0.	0.
INTEREST DURING CONSTRUCTION	0.	0.	0.	0.	0.	0.	0.
INCREASE IN CURRENT ASSET OTHER THAN CASH	0.	0.	0.	0.	0.	0.	0.
INCR (DECR) ACC T RECEIVABLE	0.	0.	0.	0.	0.	0.	0.
INCR (DECR) IN INVENTORIES	0.	0.	0.	0.	0.	0.	0.
PRODUCTS	0.	0.	0.	0.	0.	0.	0.
MATERIALS	0.	0.	0.	0.	0.	0.	0.
DEBT SERVICES	23985.	22925.	21664.	20503.	0.	0.	0.
REPAYMENT OF LONG TERM DEBT	19343.	19343.	19343.	19343.	0.	0.	0.
REPAYMENT OF SHORT TERM DEBT	0.	0.	0.	0.	0.	0.	0.
INTEREST ON LONG TERM DEBT	4642.	3482.	2321.	1161.	0.	0.	0.
INTEREST ON SHORT TERM DEBT	0.	0.	0.	0.	0.	0.	0.
INCOME TAX PAYMENT	0.	0.	0.	0.	0.	3896.	13699.
DIVIDENDS PAYMENT	0.	0.	0.	0.	0.	0.	0.
CASH INCREASE OR (DECREASE)	17156.	18316.	19477.	20638.	41141.	37245.	27442.
BEGINNING CASH BALANCE	86806.	103961.	122278.	141754.	162392.	203533.	240778.
ENDING CASH BALANCE	103961.	122278.	141754.	162392.	203533.	240778.	268220.

*** ASIAN UREA FERTILIZER PROJECT (MALAYSIA) ***
 BALANCE SHEET (FOR YEARS ENDING DECEMBER 31)
 UREA : WORLD AMMONIA : DOMESTIC

UNIT: (US\$000)

(CASE 9-6)

	1991	1992	1983	1984	1985	1986	1987	1988	1989	1990	1991
ASSETS											
CURRENT ASSETS											
CASH	7702.	20037.	16497.	32318.	34648.	44812.	56165.	68678.	82352.	97187.	113182.
ACCOUNTS RECEIVABLE	4471.	12498.	6804.	9981.	9977.	18527.	29789.	42302.	55976.	70811.	86806.
INVENTORIES	0.	0.	0.	7098.	8854.	9937.	10027.	10027.	10027.	13027.	10027.
PRODUCTS	0.	0.	0.	4468.	5047.	5579.	5579.	5579.	5579.	5579.	5579.
MATERIALS	3231.	7539.	9693.	10770.	10770.	10770.	10770.	10770.	10770.	10770.	10770.
NET FIXED ASSETS	83486.	192735.	257067.	269294.	250804.	232513.	214122.	195732.	177341.	158950.	140560.
INVESTMENT	83486.	192735.	257067.	284620.	284620.	284620.	284620.	284620.	284620.	284620.	284620.
LAND & SILL IMPROVEMENT	7008.	8760.	8760.	8760.	8760.	8760.	8760.	8760.	8760.	8760.	8760.
CONSTRUCTED FACILITIES	73545.	171605.	223635.	245150.	245150.	245150.	245150.	245150.	245150.	245150.	245150.
PRE-INVEST. & START-UP EXP	1918.	4072.	9162.	10180.	10180.	10180.	10180.	10180.	10180.	10180.	10180.
INTEREST DURING CONSTRUCTN	1915.	8298.	19510.	20530.	20530.	20530.	20530.	20530.	20530.	20530.	20530.
LESS DEPRECIATION & AMORTIZATION	0.	0.	0.	15326.	33716.	52107.	70498.	88888.	107279.	125670.	144060.
LIABILITIES	63832.	148940.	191495.	213955.	194771.	175590.	156247.	136904.	117561.	98219.	78875.
CURRENT LIABILITIES	0.	0.	0.	29526.	20686.	20847.	20847.	20847.	20847.	20847.	20847.
ACCOUNTS PAYABLE	0.	0.	0.	1183.	1342.	1504.	1504.	1504.	1504.	1504.	1504.
INCOME TAX PAYABLE	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
DIVIDENDS PAYABLE	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
CURRENT PORTION OF DEBT	0.	0.	0.	19343.	19343.	19343.	19343.	19343.	19343.	19343.	19343.
LONG TERM DEBT	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
SHORT TERM DEBT	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
FIXED LIABILITIES	63832.	148940.	191495.	193429.	174086.	154743.	135400.	116057.	96715.	77372.	58029.
LONG TERM DEBT BALANCE	63832.	148940.	191495.	193429.	174086.	154743.	135400.	116057.	96715.	77372.	58029.
STOCK HOLDERS EQUITY	27356.	63832.	82069.	87658.	90781.	101735.	114040.	127506.	142132.	157919.	174866.
SHARE CAPITAL	27356.	63832.	82069.	91188.	91188.	91188.	91188.	91188.	91188.	91188.	91188.
RETAINED EARNINGS	0.	0.	0.	-407.	-407.	10548.	22853.	36319.	50944.	66731.	83678.

*** ASEAN UREA FERTILIZER PROJECT (MALAYSIA) ***
 BALANCE SHEET (FOR YEARS ENDING DECEMBER 31)
 AREA : WORLD AMOUNTS : DOMESTIC
 UNIT: (US\$000)

	1992	1993	1994	1995	1996	1997	1998
ASSETS							
252506.	252432.	253518.	255765.	278515.	297370.	306421.	
CURRENT ASSETS							
130337.	148454.	168130.	188768.	229909.	267154.	294596.	
CASH	103961.	122278.	141754.	162392.	203533.	240778.	268220.
ACCOUNTS RECEIVABLE	10027.	10027.	10027.	10027.	10027.	10027.	10027.
INVENTORIES	5579.	5579.	5579.	5579.	5579.	5579.	5579.
PRODUCTS	10770.	10770.	10770.	10770.	10770.	10770.	10770.
MATERIALS							
NET FIXED ASSETS	122169.	103778.	85398.	66997.	48636.	30216.	11825.
INVESTMENT							
284620.	284620.	284620.	284620.	284620.	284620.	284620.	
LAND & SITE IMPROVEMENT	8760.	8760.	8760.	8760.	8760.	8760.	8760.
CONSTRUCTED FACILITIES	245150.	245150.	245150.	245150.	245150.	245150.	245150.
PRE-INVEST. & START-UP EXP	10180.	10180.	10180.	10180.	10180.	10180.	10180.
INTEREST DURING CONSTRUCTN	20530.	20530.	20530.	20530.	20530.	20530.	20530.
LESS DEPRECIATION & AMORTIZTN	162491.	160842.	199232.	217623.	236014.	254404.	272795.
LIABILITIES							
59632.	40190.	20847.	1504.	5430.	15203.	15719.	
CURRENT LIABILITIES							
20847.	20847.	20846.	1504.	5399.	15203.	15718.	
ACCOUNTS PAYABLE	1504.	1504.	1504.	1504.	1504.	1504.	1504.
INCOME TAX PAYABLE	0.	0.	0.	0.	3896.	13699.	14215.
DIVIDENDS PAYABLE	0.	0.	0.	0.	0.	0.	0.
CURRENT POSITION OF DEBT	19343.	19343.	19343.	0.	0.	0.	0.
LONG TERM DEBT	0.	0.	0.	0.	0.	0.	0.
SHORT TERM DEBT							
FIXED LIABILITIES	38686.	19343.	0.	0.	0.	0.	0.
LONG TERM DEBT BALANCE	38686.	19343.	0.	0.	0.	0.	0.
STOCK HOLDERS EQUITY							
102974.	212242.	232671.	254261.	273116.	282167.	290702.	
SHARE CAPITAL	91188.	91188.	91188.	91188.	91188.	91188.	91188.
RETAINED EARNINGS	101786.	121054.	141483.	163073.	181928.	190979.	199514.

*** FERTILIZER PROJECT (MALAYSIA) ***

PRODUCTION COST STATEMENTS

UPEA : WOFEL AMBONTA : DOMESTIC

(CASE H-6)

UNIT: (US\$000)

	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994
PRODUCTION (VOLUME)	288750.	395000.	445500.	445500.	445500.	445500.	445500.	445500.	445500.	445500.	445500.
UREA	1300.	1906.	2145.	2145.	2145.	2145.	2145.	2145.	2145.	2145.	2145.
AMMONIA	6321.	8576.	9599.	9599.	9599.	9599.	9599.	9599.	9599.	9599.	9599.
NATURAL GAS	7711.	10482.	11744.	11744.	11744.	11744.	11744.	11744.	11744.	11744.	11744.
UREA	1211.	1661.	1869.	1869.	1869.	1869.	1869.	1869.	1869.	1869.	1869.
AMMONIA	651.	884.	989.	989.	989.	989.	989.	989.	989.	989.	989.
ELECTRICITY	1863.	2545.	2858.	2858.	2858.	2858.	2858.	2858.	2858.	2858.	2858.
UREA	362.	523.	589.	589.	589.	589.	589.	589.	589.	589.	589.
AMMONIA	823.	1116.	1249.	1249.	1249.	1249.	1249.	1249.	1249.	1249.	1249.
RAW WATER WAKF-IIP	1204.	1639.	1838.	1838.	1838.	1838.	1838.	1838.	1838.	1838.	1838.
UREA	231.	317.	356.	356.	356.	356.	356.	356.	356.	356.	356.
AMMONIA	872.	1115.	1248.	1248.	1248.	1248.	1248.	1248.	1248.	1248.	1248.
CATALYST AND CHEMICALS	1053.	1432.	1604.	1604.	1604.	1604.	1604.	1604.	1604.	1604.	1604.
VARIABLE COST	11831.	16099.	18044.	18044.	18044.	18044.	18044.	18044.	18044.	18044.	18044.
DEPRECIATION (PLANT)	13619.	16343.	16343.	16343.	16343.	16343.	16343.	16343.	16343.	16343.	16343.
DEPRECIATION (WGS-OPEP)	566.	676.	679.	679.	679.	679.	679.	679.	679.	679.	679.
DEPRECIATION (INTEREST C.C.)	1141.	1369.	1369.	1369.	1369.	1369.	1369.	1369.	1369.	1369.	1369.
DEPRECIATION	15326.	18391.	18391.	18391.	18391.	18391.	18391.	18391.	18391.	18391.	18391.
AMORTIZATION	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
DEPRECIATION & AMORTIZATION	15326.	18391.	18391.	18391.	18391.	18391.	18391.	18391.	18391.	18391.	18391.
MAINTENANCE AND REPAIR	6129.	7354.	7354.	7354.	7354.	7354.	7354.	7354.	7354.	7354.	7354.
OPERATION LABOUR	4537.	5444.	5444.	5444.	5444.	5444.	5444.	5444.	5444.	5444.	5444.
OVERHEAD	6805.	8166.	8166.	8166.	8166.	8166.	8166.	8166.	8166.	8166.	8166.
LAND RENT	57.	68.	68.	68.	68.	68.	68.	68.	68.	68.	68.
OTHER FIXED COST	17527.	21033.	21033.	21033.	21033.	21033.	21033.	21033.	21033.	21033.	21033.
EX-FACTORY PRODUCTION COST	44693.	55522.	57467.	57467.	57467.	57467.	57467.	57467.	57467.	57467.	57467.
UNIT DIRECT OPERATING COST	0.1547	0.1402	0.1290	0.1290	0.1290	0.1290	0.1290	0.1290	0.1290	0.1290	0.1290
SALES EXPENSES	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
INTEREST ON LONG TERM DEBT	10639.	12766.	11606.	10445.	9235.	8124.	6963.	5803.	4642.	3482.	2321.
INTEREST ON SHORT TERM DEBT	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
TOTAL PRODUCTION COST	55322.	68288.	69073.	67913.	66752.	65591.	64431.	63270.	62110.	60949.	59788.
UNIT PRODUCTION COST	0.1916	0.1724	0.1550	0.1524	0.1498	0.1472	0.1446	0.1420	0.1394	0.1368	0.1342

*** ASEAN UREA FERTILIZER PROJECT (MALAYSIA) ***

PRODUCTION COST STATEMENTS

UNIT: (US\$000)

(CASE P-6)

UREA : WGPLC AMMONIA : DOMESTIC

1975 1996 1997 1998

PRODUCTION (VOLUME) 44500. 44500. 44500. 44500.

UREA	2145.	2145.	2145.	2145.
AMMONIA	9599.	9599.	9599.	9599.
NATURAL GAS	11744.	11744.	11744.	11744.
UREA	1869.	1869.	1869.	1869.
AMMONIA	989.	989.	989.	989.
ELECTRICITY	2858.	2858.	2858.	2858.
UREA	589.	589.	589.	589.
AMMONIA	1249.	1249.	1249.	1249.
RAW WATER MAKE-UP	1838.	1838.	1838.	1838.
UREA	356.	356.	356.	356.
AMMONIA	1248.	1248.	1248.	1248.
CATALYST AND CHEMICALS	1604.	1604.	1604.	1604.
VARIABLE COST	18044.	18044.	18044.	18044.
DEPRECIATION (PLANT)	16343.	16343.	16343.	16343.
DEPRECIATION (PRE-OPER)	679.	679.	679.	679.
DEPRECIATION (INTEREST C.P.)	1369.	1369.	1369.	1369.
DEPRECIATION	18391.	18391.	18391.	18391.
AMORTIZATION	0.	0.	0.	0.
DEPRECIATION & AMORTIZATION	18391.	18391.	18391.	18391.
MAINTENANCE AND REPAIR	7354.	7354.	7354.	7354.
OPERATION LABOUR	5444.	5444.	5444.	5444.
OVERHEAD	8166.	8166.	8166.	8166.
LAND RENT	68.	68.	68.	68.
OTHER FIXED COST	21033.	21033.	21033.	21033.
EX-FACTORY PRODUCTION COST	57467.	57467.	57467.	57467.
UNIT DIRECT OPERATING COST	0.1290	0.1290	0.1290	0.1290
SALES EXPENSES	0.	0.	0.	0.
INTEREST ON LONG TERM DEBT	1161.	0.	0.	0.
INTEREST ON SHORT TERM DEBT	0.	0.	0.	0.
TOTAL PRODUCTION COST	58628.	57467.	57467.	57467.
UNIT PRODUCTION COST	0.1316	0.1290	0.1290	0.1290

*** ASEAN UREA FERTILIZER PROJECT (MALAYSIA) ***
 TOP CALCULATION ON TOTAL INVESTMENT
 UNIT: (US\$000)

(CASE 9-6) UREA : WORLD AMMONIA : DOMESTIC

YEAR	TOTAL INVESTMENT	PROFIT BEFORE TAX	DEPRECIATION	INTEREST ON DEBT	(BEFORE TAX)		DISCOUNT FACTOR	RETURN AFTER TAX	(LESS) INCOME TAX	DISCOUNT FACTOR	(AFTER TAX)	
					PRESENT VALUE INVEST.	RETURN					PRESENT VALUE INVEST.	RETURN
1981	84802	0	0	0	34802	0	1.0000	0	0	1.0000	84802	0
1982	107174	0	0	0	97913	0	0.9136	0	0	0.9170	98278	0
1983	63130	0	0	0	52692	0	0.8347	0	0	0.8409	53085	0
1984	28324	-3530	15326	10639	21598	17106	0.7625	22434	0	0.7711	21840	17298
1985	3123	3123	18391	12766	0	23881	0.6966	34280	0	0.6484	0	24239
1986	0	10955	18391	11606	0	26063	0.6364	40951	0	0.5946	0	26552
1987	0	12305	18391	10445	0	23922	0.5815	41141	0	0.5452	0	24451
1988	0	13466	18391	9285	0	21855	0.5312	41141	0	0.5000	0	20569
1989	0	14626	18391	8124	0	19966	0.4853	41141	0	0.4585	0	18862
1990	0	15787	18391	6963	0	18241	0.4434	41141	0	0.4204	0	17296
1991	0	16947	18391	5803	0	16665	0.4051	41141	0	0.3855	0	15860
1992	0	18108	18391	4642	0	15225	0.3701	41141	0	0.3535	0	14544
1993	0	19268	18391	3482	0	13909	0.3391	41141	0	0.3242	0	13337
1994	0	20429	18391	2321	0	12707	0.3089	41141	0	0.2973	0	12230
1995	0	21590	18391	1161	0	11609	0.2822	41141	0	0.2726	0	10153
1996	0	22750	18391	0	0	10606	0.2578	41141	3898	0.2500	0	6859
1997	0	22750	18391	0	0	9600	0.2355	41141	13698	0.2292	0	6172
1998	-31155	22750	18391	0	0	8653	0.2152	41141	14215	0.2292	-7143	250862
					TOTAL PRESENT VALUE		250299			9.05 PER CENT (AFTER TAX)		250862

***** INTERNAL RATE OF RETURN ***** 9.46 PER CENT (BEFORE TAX) 9.05 PER CENT (AFTER TAX)
 ***** PAY-OFF PERIOD ***** (THE YEAR WHEN THE TOTAL CAPITAL COST WILL BE PAID OUT BY ACCUMULATED TOTAL RETURN, FROM THE REG. OF OPERATION)

CAPITAL REQUIREMENTS		SOURCE OF FUNDS	
SITE PREPARATION	3760	SHARE CAPITAL	91188
ERECTOR PLANT COST	245150	LONG TERM DEBT	212772
PRE-OPERATING EXPENSES	10180	SHORT TERM DEBT	0
INTEREST DURING CONSTRUCTION	20530	FINANCIAL RESOURCES	303960
TOTAL FIXED CAPITAL	284620		
INITIAL WORKING CAPITAL	10770		
INITIAL CATALYST & CHEMICALS	8970		
WORKING CAPITAL	19340		
TOTAL CAPITAL COST	303960		

*** ASSAN NUSA FERTILIZER PROJECT (MALAYSIA) ***
 IFR CALCULATION ON SHARE CAPITAL
 (CASE B-6) (USA = WOLF AMONTA : DOMESTIC)

UNIT: (US\$000)

YEAR	SHARE CAPITAL (OUT)	PROPERTY REFUGE TAX	(LESS) INCOME TAX	PROFIT AFTER TAX	DEPRECIATION	(LESS) NET DEBT REPAYMENT	TOTAL RETURN (IN)	DISC. UNITS FACTOR	DISCOUNTED CASH	
									OUT-FLOW	IN-FLOW
1981	27356.	0.	0.	0.	0.	0.	0.	1.00000	27356.	0.
1982	36475.	0.	0.	0.	0.	0.	0.	0.64287	32567.	0.
1983	18238.	0.	0.	0.	0.	0.	0.	0.79721	14539.	0.
1984	9119.	-3530.	0.	-3530.	15326.	19343.	11790.	0.71180	6491.	8396.
1985	0.	3123.	0.	10955.	18391.	19343.	2171.	0.63554	0.	1380.
1986	0.	10955.	0.	12305.	18391.	19343.	10002.	0.56745	0.	5676.
1987	0.	12305.	0.	10955.	18391.	19343.	11353.	0.50666	0.	5752.
1988	0.	13466.	0.	13466.	18391.	19343.	12513.	0.45238	0.	5661.
1989	0.	14627.	0.	14627.	18391.	19343.	13674.	0.40391	0.	5523.
1990	0.	15787.	0.	15787.	18391.	19343.	14834.	0.36064	0.	5350.
1991	0.	16947.	0.	16947.	18391.	19343.	15995.	0.32200	0.	5150.
1992	0.	18109.	0.	18109.	18391.	19343.	17156.	0.28751	0.	4932.
1993	0.	19268.	0.	19268.	18391.	19343.	18316.	0.25670	0.	4702.
1994	0.	20429.	0.	20429.	18391.	19343.	19477.	0.22920	0.	4464.
1995	0.	21590.	0.	21590.	18391.	19343.	20638.	0.20465	0.	4223.
1996	0.	22750.	3896.	18854.	18391.	19343.	37245.	0.18272	0.	6806.
1997	0.	22750.	13490.	9051.	18391.	0.	27442.	0.16315	0.	4477.
1998	-31165.	22750.	14215.	8536.	18391.	0.	26926.	0.14567	-4540.	3922.
							TOTAL PRESENT VALUE		76414.	76414.

***** INTERNAL RATE OF RETURN ***** 12.00 PER CENT (AFTER TAX)

***** PAY-OUT PERIOD ***** 7.93 YEAR (AFTER TAX)
 (THE YEAR WHEN THE SHARE CAPITAL WILL BE PAID OUT BY THE ACCUMULATED TOTAL RETURN, FROM THE BEG. OF OPERATION)

CAPITAL REQUIREMENTS

SITE PREPARATION	8740.
ERECTED PLANT COST	245150.
OP-OPERATING EXPENCES	10180.
INTEREST DURING CONSTRUCTION	20530.
TOTAL FIXED CAPITAL	284620.
PARTS, CATALYST & CHEMICALS	10770.
INITIAL WORKING CAPITAL	8570.
WORKING CAPITAL	19340.
TOTAL CAPITAL COST	303960.

SOURCE OF FUNDS

SHARE CAPITAL	91188.
LONG TERM DEBT	212772.
SHORT TERM DEBT	0.
FINANCIAL RESOURCES	303960.

*** ASEAN UREA FERTILIZER PROJECT (MALAYSIA) ***
 PROFITABILITY AND FINANCIAL INDICATORS
 UREA : WORLD AMMONIA : DOMESTIC
 UNIT: (US\$000)

(CASE 5-6)

YEAR	(1) AFT TAX PROFIT -TO- SALES REV (PCT)	(2) AFT TAX PROFIT -TO- S/H EQUITY (PCT)	(3) AFT TAX PROFIT -TO- INVESTMENT (PCT)	(4) AFT TAX PROFIT -TO- CAPITAL (PCT)	(5) CURRENT RATIO	(6) QUICK RATIO	(7) DEBT SERVICE RATIO	(8) L/T DEBT -TO- S/H EQUITY	(9) PROFIT R.S.P. CAPACITY UTILIZE (PCT)	(10) CASH R.S.P. SALES PRICE (PRICE)	(11) CASH R.S.P. CAPACITY UTILIZE (PCT)
1984	-7.5	-4.0	-1.2	-3.9	1.57	0.83	2.11	66./ 31.	62.3	153.9	40.3
1985	4.4	3.4	1.0	3.4	1.58	0.91	1.07	66./ 34.	75.3	176.7	76.6
1986	13.8	10.8	3.6	12.0	2.15	1.37	1.32	60./ 40.	73.8	158.7	75.2
1987	15.3	10.8	4.0	13.5	2.69	1.91	1.38	54./ 46.	72.2	154.6	73.6
1988	16.8	10.6	4.4	14.8	3.29	2.51	1.44	48./ 52.	70.5	152.0	71.9
1989	18.2	10.3	4.8	16.0	3.95	3.17	1.50	40./ 60.	68.8	149.4	70.2
1990	19.7	10.0	5.2	17.3	4.66	3.88	1.56	33./ 67.	67.1	146.9	68.5
1991	21.1	9.7	5.6	18.6	5.43	4.65	1.64	25./ 75.	65.5	144.2	66.8
1992	22.6	9.4	6.0	19.9	6.25	5.47	1.72	17./ 83.	63.8	141.6	65.2
1993	24.0	9.1	6.3	21.1	7.13	6.35	1.80	8./ 92.	62.1	138.9	63.5
1994	25.5	8.8	6.7	22.4	8.07	7.28	1.90	0./ 100.	60.4	136.3	61.8
1995	26.9	8.5	7.1	23.7	125.54	114.67	2.01	0./ 100.	58.7	133.7	60.1
1996	23.5	6.9	7.5	20.7	42.58	39.55	*****	0./ 100.	57.1	87.7	30.4
1997	11.3	3.2	7.5	9.9	17.57	16.50	*****	0./ 100.	57.1	87.7	30.4
1998	10.0	2.9	7.5	9.4	18.74	17.70	*****	0./ 100.	57.1	87.7	30.4
AVERAGE	16.4	7.4	5.1	14.6	16.75	15.12	*****	22./ 72.	64.8	136.7	59.0

ATTACHMENT

FINANCIAL PROJECTIONS

(Interest Rate: 5% per annum)

*** ASEAN UREA FERTILIZER PROJECT (MALAYSIA) ***
 INCOME STATEMENTS (FOR YEARS ENDING DECEMBER 31)
 AREA : WORLD AMBONIA : DOMESTIC
 UNIT : (US\$000)

(CASE 4-5)

	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994
PRODUCTION AND SALES											
PRODUCTION	288780.	396000.	445500.	445500.	445500.	445500.	445500.	445500.	445500.	445500.	445500.
INCREASE IN INVENTORIES	28375.	4125.	4125.	0.	0.	0.	0.	0.	0.	0.	0.
SALES VOLUME	259375.	391875.	441375.	445500.	445500.	445500.	445500.	445500.	445500.	445500.	445500.
SALES REVENUE	47323.	70933.	79496.	80217.	80217.	80217.	80217.	80217.	80217.	80217.	80217.
MAIN PRODUCTS	45478.	63378.	72411.	77962.	77962.	77962.	77962.	77962.	77962.	77962.	77962.
BY-PRODUCTS	1845.	2255.	2255.	2255.	2255.	2255.	2255.	2255.	2255.	2255.	2255.
COST OF SALES	40034.	54705.	56696.	57226.	57226.	57226.	57226.	57226.	57226.	57226.	57226.
VARIABLE COST	11821.	16090.	18044.	18044.	18044.	18044.	18044.	18044.	18044.	18044.	18044.
DEPRECIATION & AMORTIZATION	15124.	18149.	18149.	18149.	18149.	18149.	18149.	18149.	18149.	18149.	18149.
OTHER FIXED COST	17587.	21033.	21033.	21033.	21033.	21033.	21033.	21033.	21033.	21033.	21033.
(INC) IN PRODUCT INVENTORIES	-4440.	-574.	-530.	0.	0.	0.	0.	0.	0.	0.	0.
GROSS PROFIT OR (LOSS) ON SALES	7299.	16128.	22799.	22991.	22991.	22991.	22991.	22991.	22991.	22991.	22991.
LESS. SALES EXPENSES	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
OPERATING PROFIT OR (LOSS)	7299.	16128.	22799.	22991.	22991.	22991.	22991.	22991.	22991.	22991.	22991.
LESS. INTEREST	8760.	10512.	9556.	8601.	7645.	6689.	5734.	4778.	3822.	2967.	1911.
ON LONG TERM DEBT	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
ON SHORT TERM DEBT	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
NET PROFIT OR (LOSS) BEFORE TAX	-1471.	5617.	13243.	14391.	15346.	16302.	17258.	18213.	19169.	20125.	21080.
LESS. INCOME TAX	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
NET PROFIT OR (LOSS) AFTER TAX	-1471.	5617.	13243.	14391.	15346.	16302.	17258.	18213.	19169.	20125.	21080.

*** ASPAM UREA FERTILIZER PROJECT (MALAYSIA) ***
 INCOME STATEMENTS (FOR YEARS ENDING FEBRUARY 31)
 AREA : WORLD AMMONIA : DOMESTIC
 UNIT: (US\$000)

(Case R-6)

1995 1996 1997 1998

	1995	1996	1997	1998
PRODUCTION AND SALES				
PRODUCTION	445500.	445500.	445500.	445500.
INCREASE IN INVENTORIES	0.	0.	0.	0.
SALES VOLUME	445500.	445500.	445500.	445500.
SALES REVENUE	80217.	80217.	80217.	80217.
MAIN PRODUCTS	77962.	77962.	77962.	77962.
BY-PRODUCTS	2255.	2255.	2255.	2255.
COST OF SALES	57276.	57226.	57226.	57226.
VARIABLE COST	18044.	18044.	18044.	18044.
DEPRECIATION & AMORTIZATION	18149.	18149.	18149.	18149.
OTHER FIXED COST	21033.	21033.	21033.	21033.
(INCL. IN PRODUCT INVENTORIES)	0.	0.	0.	0.
GROSS PROFIT OR (LOSS) ON SALES	22941.	22991.	22991.	22991.
LESS: SALES EXPENSES	0.	0.	0.	0.
OPERATING PROFIT OR (LOSS)	22941.	22991.	22991.	22991.
LESS: INTEREST				
ON LONG TERM DEBT	986.	0.	0.	0.
ON SHORT TERM DEBT	0.	0.	0.	0.
NET PROFIT OR (LOSS) BEFORE TAX	22056.	22991.	22991.	22991.
LESS: INCOME TAX	0.	4899.	13783.	14292.
NET PROFIT OR (LOSS) AFTER TAX	22056.	18103.	9208.	8699.

*** ASIAN UREA FERTILIZER PROJECT (MALAYSIA) ***
 FUND FLOW STATEMENTS (FOR YEARS ENDING DECEMBER 31)
 UREA : WOLU AMMONIA : DOMESTIC
 UNIT : (US\$000)

	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991
SOURCES OF FUNDS											
CASH GENERATED FROM OPERATION	90132	120136	60068	53631	34336	41111	41141	41141	41141	41141	41141
PROFIT BEFORE TAX, INTEREST	0	0	0	22414	34278	40534	41141	41141	41141	41141	41141
DEPRECIATION & AMORTIZATION	0	0	0	7289	16128	22789	22991	22991	22991	22991	22991
FINANCIAL RESOURCES	90132	120136	60068	30034	18149	18149	18149	18149	18149	18149	18149
SHARE CAPITAL	27031	36041	18020	9010	0	0	0	0	0	0	0
LONG TERM DEBT	63071	84095	42048	21024	0	0	0	0	0	0	0
SHORT TERM DEBT	0	0	0	0	0	0	0	0	0	0	0
INCREASE IN ACCT PAYABLE	0	0	0	1183	158	162	0	0	0	0	0
USES OF FUNDS											
INVESTMENT IN FIXED ASSET	86330	112431	64685	48581	31956	30281	27803	26758	25902	24846	23891
LAND AND SITE IMPROVEMENT	83149	108123	62531	27197	0	0	0	0	0	0	0
CONSTRUCTED FACILITIES	7008	1752	0	0	0	0	0	0	0	0	0
PRE-INVEST. & START-UP EXP	73545	98060	49030	24515	0	0	0	0	0	0	0
INTEREST DURING CONSTRUCTION	1318	3056	5090	1018	0	0	0	0	0	0	0
INCREASE IN CURRENT ASSET	1573	5257	9411	1664	0	0	0	0	0	0	0
OTHER THAN CASH	3231	4308	2154	12624	2331	1613	90	0	0	0	0
INCR (DECR) ACC T RECEIVABLE	0	0	0	7098	1736	1083	90	0	0	0	0
INCR (DECR) IN INVENTORIES	0	0	0	4448	576	530	-0	0	0	0	0
PRODUCTS	3231	4308	2154	1077	0	0	0	0	0	0	0
MATERIALS	0	0	0	8760	29624	28669	27713	26753	25902	24846	23891
DEBT SERVICES	0	0	0	0	0	0	0	0	0	0	0
REPAYMENT OF LONG TERM DEBT	0	0	0	0	19113	19113	19113	19113	19113	19113	19113
REPAYMENT OF SHORT TERM DEBT	0	0	0	0	0	0	0	0	0	0	0
INTEREST ON LONG TERM DEBT	0	0	0	3760	10512	9556	8601	7645	6689	5734	4778
INTEREST ON SHORT TERM DEBT	0	0	0	0	0	0	0	0	0	0	0
INCOME TAX PAYMENT	0	0	0	0	0	0	0	0	0	0	0
DIVIDENDS PAYMENT	0	0	0	0	0	0	0	0	0	0	0
CASH INCREASE OR (DECREASE)	3722	7705	-6617	5050	7480	10829	13337	14383	15339	16295	17250
BEGINNING CASH BALANCE	0	3722	11427	6810	11860	14340	25170	38507	52891	68229	84524
ENDING CASH BALANCE	3722	11427	6810	11860	14340	25170	38507	52891	68229	84524	101774

*** ASEAN UREA FERTILIZER PROJECT (MALAYSIA) ***
 FUNDS FLOW STATEMENTS (FOR YEARS ENDING DECEMBER 31)
 UREA : WORLD AMUNIA : DOMESTIC
 UNIT: (US\$000)

	1992	1993	1994	1995	1996	1997	1998
SOURCES OF FUNDS							
CASH GENERATED FROM OPERATION	41141.	41141.	41141.	41141.	41141.	41141.	41141.
PROFIT BEFORE TAX, INTEREST DEPRECIATION & AMORTIZATION	22991. 18149.	22991. 18149.	22991. 18149.	22991. 18149.	22991. 18149.	22991. 18149.	22991. 18149.
FINANCIAL RESOURCES	0.	0.	0.	0.	0.	0.	0.
SHARE CAPITAL	0.	0.	0.	0.	0.	0.	0.
LONG TERM DEBT	0.	0.	0.	0.	0.	0.	0.
SHORT TERM DEBT	0.	0.	0.	0.	0.	0.	0.
INCREASE IN ACCT PAYABLE	0.	0.	0.	0.	0.	0.	0.
USES OF FUNDS							
INVESTMENT IN FIXED ASSET	22995.	21979.	21024.	20068.	0.	4889.	13793.
LAND AND SITE IMPROVEMENT	0.	0.	0.	0.	0.	0.	0.
CONSTRUCTED FACILITIES	0.	0.	0.	0.	0.	0.	0.
PRE-INVEST. & START-UP EXP.	0.	0.	0.	0.	0.	0.	0.
INTEREST DURING CONSTRUCTION	0.	0.	0.	0.	0.	0.	0.
INCREASE IN CURRENT ASSET OTHER THAN CASH	0.	0.	0.	0.	0.	0.	0.
INCR(DECR) ACCY RECEIVABLE	0.	0.	0.	0.	0.	0.	0.
INCR(DECR) IN INVENTORIES	0.	0.	0.	0.	0.	0.	0.
PRODUCTS	0.	0.	0.	0.	0.	0.	0.
MATERIALS	0.	0.	0.	0.	0.	0.	0.
DEBT SERVICES	22945.	21979.	21024.	20068.	0.	0.	0.
REPAYMENT OF LONG TERM DEBT	19113.	19113.	19113.	19113.	0.	0.	0.
REPAYMENT OF SHORT TERM DEBT	0.	0.	0.	0.	0.	0.	0.
INTEREST ON LONG TERM DEBT	3922.	2867.	1911.	956.	0.	0.	0.
INTEREST ON SHORT TERM DEBT	0.	0.	0.	0.	0.	0.	0.
INCOME TAX PAYMENT	0.	0.	0.	0.	0.	4889.	13793.
DIVIDENDS PAYMENT	0.	0.	0.	0.	0.	0.	0.
CASH INCREASE OR (DECREASE)	18286.	19161.	20117.	21073.	41141.	56252.	27358.
BEGINNING CASH BALANCE	10176.	119980.	139141.	159258.	180331.	221472.	257724.
ENDING CASH BALANCE	116980.	139141.	159258.	180331.	221472.	257724.	285082.

*** SEAN UREA FERTILIZER PROJECT (MALAYSIA) ***
 BALANCE SHEET (FOR YEARS ENDING DECEMBER 31)
 UREA : WORLD AMMONIA : DOMESTIC
 (CAST 2-5) UNIT: (US\$000)

	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991
ASSETS											
CURRENT ASSETS											
CASH	6953	18866	16503	34177	38939	51431	64858	79242	94581	113873	129125
ACCOUNTS RECEIVABLE	3722	11427	6810	11960	14340	25170	38507	52891	68229	84524	101774
INVENTORIES	0	0	0	7095	8854	9437	10027	10027	10027	10027	10027
PRODUCTS	0	0	0	4448	5024	5554	5554	5554	5554	5554	5554
MATERIALS	3231	7539	9693	10770	10770	10770	10770	10770	10770	10770	10770
NET FIXED ASSETS	83169	151272	253803	265876	247726	229577	211428	193279	175129	156940	138830
INVESTMENT	83169	191272	253803	281000	281000	281000	281000	281000	281000	281000	281000
LAND & SITE IMPROVEMENT	7038	8760	8760	8760	8760	8760	8760	8760	8760	8760	8760
CONSTRUCTED FACILITIES	73445	171695	220635	245150	245150	245150	245150	245150	245150	245150	245150
PRE-INVEST. & START-UP EXP	1018	4072	9162	10180	10180	10180	10180	10180	10180	10180	10180
INTEREST PENDING CONSTRUCTION	1578	6935	15246	16910	16910	16910	16910	16910	16910	16910	16910
LESS DEPRECIATION & AMORTIZATION	0	0	0	15124	33274	51423	69572	87722	105871	124020	142170
LIABILITIES	63071	147167	189214	211421	192467	173517	154404	135292	116179	97066	77954
CURRENT LIABILITIES	0	0	0	20296	20434	20616	20616	20616	20616	20616	20616
ACCOUNTS PAYABLE	0	0	0	1183	1392	1504	1504	1504	1504	1504	1504
INCOME TAX PAYABLE	0	0	0	0	0	0	0	0	0	0	0
DIVIDENDS PAYABLE	0	0	0	0	0	0	0	0	0	0	0
CURRENT PORTION OF DEBT	0	0	0	19113	19113	19113	19113	19113	19113	19113	19113
LONG TERM DEBT	0	0	0	0	0	0	0	0	0	0	0
SHORT TERM DEBT	0	0	0	0	0	0	0	0	0	0	0
FIXED LIABILITIES	63071	147167	189214	191125	172013	152900	133788	114675	95563	76450	57338
LONG TERM DEBT BALANCE	63071	147167	189214	191125	172013	152900	133788	114675	95563	76450	57338
STOCK HOLDERS EQUITY	27081	63071	81092	89631	94248	107491	121892	137228	153530	170788	189001
SHARE CAPITAL	27081	63071	81092	90102	90102	90102	90102	90102	90102	90102	90102
RETAINED EARNINGS	0	0	0	-1471	4146	17389	31790	47126	63428	80686	98899

*** ASEAN UREA FERTILIZER PROJECT (MALAYSIA) ***
 BALANCE SHEET (FOR YEARS ENDING DECEMBER 31)
 (CASE 8-5) URCA : WORLD AMMONIA : DOMESTIC UNIT: (US\$000)

	1992	1993	1994	1995	1996	1997	1998
ASSETS							
267112.	268024.	269992.	272915.	295906.	314007.	323218.	
CURRENT ASSETS	146331.	165492.	185609.	206682.	247829.	284075.	311433.
CASH	119980.	139141.	159258.	180331.	221472.	257724.	285082.
ACCOUNTS RECEIVABLE	10027.	10027.	10027.	10027.	10027.	10027.	10027.
INVENTORIES	5554.	5554.	5554.	5554.	5554.	5554.	5554.
PRODUCTS	10770.	10770.	10770.	10770.	10770.	10770.	10770.
MATERIALS							
NET FIXED ASSETS	120681.	102532.	84382.	66233.	48084.	29934.	11785.
INVESTMENT	281000.	281000.	281000.	281000.	281000.	281000.	281000.
LAND & SITE IMPROVEMENT	8760.	8760.	8760.	8760.	8760.	8760.	8760.
CONSTRUCTED FACILITIES	245150.	245150.	245150.	245150.	245150.	245150.	245150.
PRE-INVEST. & START-UP EXP	10180.	10180.	10180.	10180.	10180.	10180.	10180.
INTEREST DURING CONSTRUCTION	16910.	16910.	16910.	16910.	16910.	16910.	16910.
LESS DEPRECIATION & AMORTIZATION	160319.	178468.	196618.	214767.	232916.	251066.	269215.
LIABILITIES	5841.	39729.	20616.	1504.	6393.	15287.	15706.
CURRENT LIABILITIES	20616.	20616.	20616.	1504.	6392.	15287.	15796.
ACCOUNTS PAYABLE	1504.	1504.	1504.	1504.	1504.	1504.	1504.
INCOME TAX PAYABLE	0.	0.	0.	0.	4889.	13783.	14292.
DIVIDENDS PAYABLE	0.	0.	0.	0.	0.	0.	0.
CURRENT PORTION OF DEBT	19113.	19113.	19112.	0.	0.	0.	0.
LONG TERM DEBT	0.	0.	0.	0.	0.	0.	0.
SHORT TERM DEBT	0.	0.	0.	0.	0.	0.	0.
FIXED LIABILITIES	38225.	19113.	0.	0.	0.	0.	0.
LONG TERM DEBT BALANCE	38225.	19113.	0.	0.	0.	0.	0.
STOCK HOLDERS EQUITY	208170.	228205.	249375.	271411.	299514.	298722.	307421.
SHARE CAPITAL	90102.	90102.	90102.	90102.	90102.	90102.	90102.
RETAINED EARNINGS	118068.	138103.	159273.	181309.	199412.	208620.	217319.

*** ASEAN UREA FERTILIZER PROJECT (MALAYSIA) ***

UNIT: (US\$000)

(CASE B-5)

AMMONIA : DOMESTIC

	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994
PRODUCTION (VOLUME)	282750.	326000.	445500.	445500.	445500.	445500.	445500.	445500.	445500.	445500.	445500.
UREA	1906.	1906.	2145.	2145.	2145.	2145.	2145.	2145.	2145.	2145.	2145.
AMMONIA	8576.	8576.	9599.	9599.	9599.	9599.	9599.	9599.	9599.	9599.	9599.
NATURAL GAS	7711.	10432.	11744.	11744.	11744.	11744.	11744.	11744.	11744.	11744.	11744.
UREA	1211.	1661.	1869.	1869.	1869.	1869.	1869.	1869.	1869.	1869.	1869.
AMMONIA	651.	944.	989.	989.	989.	989.	989.	989.	989.	989.	989.
ELECTRICITY	1863.	2545.	2858.	2858.	2858.	2858.	2858.	2858.	2858.	2858.	2858.
UREA	32.	523.	589.	589.	589.	589.	589.	589.	589.	589.	589.
AMMONIA	823.	1116.	1249.	1249.	1249.	1249.	1249.	1249.	1249.	1249.	1249.
RAW WATER MAKE-UP	1294.	1638.	1838.	1838.	1838.	1838.	1838.	1838.	1838.	1838.	1838.
UREA	231.	317.	356.	356.	356.	356.	356.	356.	356.	356.	356.
AMMONIA	822.	1115.	1248.	1248.	1248.	1248.	1248.	1248.	1248.	1248.	1248.
CATALYST AND CHEMICALS	1093.	1432.	1604.	1604.	1604.	1604.	1604.	1604.	1604.	1604.	1604.
VARIABLE COST	11831.	16099.	18044.	18044.	18044.	18044.	18044.	18044.	18044.	18044.	18044.
DEPRECIATION (PLANT)	13619.	16343.	16343.	16343.	16343.	16343.	16343.	16343.	16343.	16343.	16343.
DEPRECIATION (PPE-DEP)	563.	679.	679.	679.	679.	679.	679.	679.	679.	679.	679.
DEPRECIATION (INTEREST P.C.)	939.	1127.	1127.	1127.	1127.	1127.	1127.	1127.	1127.	1127.	1127.
DEPRECIATION	15124.	18149.	18149.	18149.	18149.	18149.	18149.	18149.	18149.	18149.	18149.
AMORTIZATION	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
DEPRECIATION & AMORTIZATION	15124.	18149.	18149.	18149.	18149.	18149.	18149.	18149.	18149.	18149.	18149.
MAINTENANCE AND REPAIR	6129.	7354.	7354.	7354.	7354.	7354.	7354.	7354.	7354.	7354.	7354.
OPERATION LABOUR	4537.	5444.	5444.	5444.	5444.	5444.	5444.	5444.	5444.	5444.	5444.
OVERHEAD	6305.	8166.	8166.	8166.	8166.	8166.	8166.	8166.	8166.	8166.	8166.
LAND RENT	37.	68.	68.	68.	68.	68.	68.	68.	68.	68.	68.
OTHER FIXED COST	17527.	21033.	21033.	21033.	21033.	21033.	21033.	21033.	21033.	21033.	21033.
EX-FACTORY PRODUCTION COST	44482.	55280.	57226.	57226.	57226.	57226.	57226.	57226.	57226.	57226.	57226.
UNIT DIRECT OPERATING COST	0.1541	0.1396	0.1285	0.1285	0.1285	0.1285	0.1285	0.1285	0.1285	0.1285	0.1285
SALES EXPENSES	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
INTEREST ON LONG TERM DEBT	9740.	10512.	9556.	3601.	7645.	6689.	5734.	4778.	3822.	2967.	1911.
INTEREST ON SHORT TERM DEBT	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
TOTAL PRODUCTION COST	53242.	65792.	66782.	65827.	64871.	63915.	62960.	62004.	61049.	60093.	59137.
UNIT PRODUCTION COST	0.1844	0.1681	0.1499	0.1478	0.1456	0.1435	0.1413	0.1392	0.1370	0.1349	0.1327

*** ASPAN UREA FERTILIZER PROJECT (MALAYSIA) ***

PRODUCTION COST STATEMENTS

UNIT: (US\$000)

(CASE R-5)

UNIT: WORLD AMMONIA: DOMESTIC

	1995	1996	1997	1998
PRODUCTION (VOLUME)	445500.	445500.	445500.	445500.
UREA	2145.	2145.	2145.	2145.
AMMONIA	9599.	9599.	9599.	9599.
NATURAL GAS	11744.	11744.	11744.	11744.
UREA	1869.	1869.	1869.	1869.
AMMONIA	989.	989.	989.	989.
ELECTRICITY	2458.	2458.	2458.	2458.
UREA	589.	589.	589.	589.
AMMONIA	1249.	1249.	1249.	1249.
RAW WATER MAKE-UP	1438.	1438.	1438.	1438.
UREA	356.	356.	356.	356.
AMMONIA	1248.	1248.	1248.	1248.
CATALYST AND CHEMICALS	1604.	1604.	1604.	1604.
VARIABLE COST	16343.	16343.	16343.	16343.
DEPRECIATION (PLANT)	679.	679.	679.	679.
DEPRECIATION (PRE-OPER)	1127.	1127.	1127.	1127.
DEPRECIATION (INTEREST C.C.)	18149.	18149.	18149.	18149.
DEPRECIATION	0.	0.	0.	0.
AMORTIZATION	0.	0.	0.	0.
DEPRECIATION & AMORTIZATION	18149.	18149.	18149.	18149.
MAINTENANCE AND REPAIRS	7354.	7354.	7354.	7354.
OPERATION LABOUR	5444.	5444.	5444.	5444.
OVERHEAD	8166.	8166.	8166.	8166.
LAND RENT	68.	68.	68.	68.
OTHER FIXED COST	21033.	21033.	21033.	21033.
EX-FACTORY PRODUCTION COST	57226.	57226.	57226.	57226.
UNIT DIRECT OPERATING COST	0.1285	0.1285	0.1285	0.1285
SALES EXPENSES	0.	0.	0.	0.
INTEREST ON LONG TERM DEBT	956.	0.	0.	0.
INTEREST ON SHORT TERM DEBT	0.	0.	0.	0.
TOTAL PRODUCTION COST	58182.	57226.	57226.	57226.
UNIT PRODUCTION COST	0.1304	0.1285	0.1285	0.1285

*** ASTAN UREA FERTILIZER PROJECT (MALAYSIA) ***
 FOR CALCULATION ON TOTAL INVESTMENT
 UREA : 30% DOMESTIC

(CASE 5-5) UREA : 30% DOMESTIC

YEAR	TOTAL INVESTMENT	PROFIT BEFORE TAX	INTEREST ON L-T DEBT TAX	DISCOUNT FACTOR	(BEFORE TAX)		(LESS) INCOME TAX	RETURN AFTER TAX	DISCOUNT FACTOR	(AFTER TAX)	
					PRESENT VALUE INVEST.	PRESENT VALUE RETURN				PRESENT VALUE INVEST.	PRESENT VALUE RETURN
1981	84902.	0.	0.	1.0000	84902.	0.	0.	0.	1.0000	84902.	0.
1982	107174.	0.	0.	0.9134	97915.	0.	0.	0.	0.9171	98295.	0.
1983	63130.	0.	0.	0.8347	52693.	0.	0.	0.	0.8412	53193.	0.
1984	28524.	-1471.	9760.	0.7626	21598.	17092.	0.	22414.	0.7715	21351.	17291.
1985	0.	15124.	10512.	0.6967	0.	23881.	0.	34278.	0.7076	0.	24253.
1986	0.	18149.	9556.	0.6365	0.	26664.	0.	40949.	0.6489	0.	26573.
1987	0.	18149.	8631.	0.5815	0.	29223.	0.	41141.	0.5952	0.	24486.
1988	0.	18149.	7645.	0.5313	0.	31857.	0.	41141.	0.5459	0.	22457.
1989	0.	18149.	6636.	0.4854	0.	34954.	0.	41141.	0.5004	0.	20597.
1990	0.	18149.	5734.	0.4434	0.	38443.	0.	41141.	0.4592	0.	18990.
1991	0.	18149.	4778.	0.4051	0.	42431.	0.	41141.	0.4211	0.	17325.
1992	0.	18149.	3822.	0.3701	0.	46977.	0.	41141.	0.3862	0.	15890.
1993	0.	18149.	2867.	0.3391	0.	52192.	0.	41141.	0.3547	0.	14573.
1994	0.	21080.	1911.	0.3089	0.	58110.	0.	41141.	0.3249	0.	13366.
1995	0.	22036.	950.	0.2822	0.	64812.	0.	41141.	0.2980	0.	12258.
1996	0.	22991.	0.	0.2579	0.	72408.	4899.	36252.	0.2733	0.	9907.
1997	0.	22991.	0.	0.2356	0.	80924.	13783.	27358.	0.2506	0.	6857.
1998	-31125.	22991.	0.	0.2152	-6499.	88592.	14232.	26849.	0.2299	-7155.	6172.
TOTAL PRESENT VALUE					250310.	250310.				250396.	250896.

***** INTERNAL RATE OF RETURN ***** 9.45 PER CENT (BEFORE TAX) 9.03 PER CENT (AFTER TAX)
 ***** PAY-OFF PERIOD ***** 7.93 YEAR (BEFORE TAX) 7.93 YEAR (AFTER TAX)
 (THE YEAR WHEN THE TOTAL CAPITAL COST WILL BE PAID OUT BY ACCUMULATED TOTAL RETURN, FROM THE BEG. OF OPERATION)

CAPITAL REQUIREMENTS SOURCE OF FUNDS

	AMOUNT	SOURCE OF FUNDS
SITE PREPARATION	8760.	SHARE CAPITAL
PREDICTED PLANT COST	245150.	LONG TERM DEBT
PRE-OPERATING EXPENSES	10190.	SHORT TERM DEBT
INTEREST DURING CONSTRUCTION	16910.	FINANCIAL RESOURCES
TOTAL FIXED CAPITAL	291000.	
PARTS, CATALYST & CHEMICALS	10770.	
INITIAL WORKING CAPITAL	9570.	
WORKING CAPITAL	19340.	
TOTAL CAPITAL COST	300340.	

*** ASPAR UREA FERTILIZER PROJECT (MALAYSIA) ***
 ICR CALCULATION ON SHARE CAPITAL
 (CASE 4-5) UREA : N010 AMMONIA : DOMESTIC
 UNIT: (US\$000)

YEAR	SHARE CAPITAL (OUT)	PROFIT BEFORE TAX	(LESS) INCOME TAX	PROFIT AFTER TAX	DEPRECIATION	(LESS) L-TERM REPAYMENT	TOTAL RETURN (IN)	DISCOUNT FACTOR	DISCOUNTED CASH OUT-FLOW	DISCOUNTED CASH IN-FLOW
1981	27031.	0.	0.	0.	0.	0.	0.	1.00000	27031.	0.
1982	36041.	0.	0.	0.	0.	0.	0.	0.88160	31777.	0.
1983	18020.	0.	0.	0.	0.	0.	0.	0.77738	14009.	0.
1984	9010.	-1471.	0.	-1471.	15124.	19113.	13654.	0.68541	6176.	9358.
1985	0.	5617.	0.	5617.	18149.	19113.	4653.	0.60432	0.	2812.
1986	0.	13243.	0.	13243.	18149.	19113.	12280.	0.53283	0.	6543.
1987	0.	14391.	0.	14391.	18149.	19113.	13428.	0.46979	0.	6308.
1988	0.	15346.	0.	15346.	18149.	19113.	14363.	0.41421	0.	5958.
1989	0.	16302.	0.	16302.	18149.	19113.	15336.	0.36521	0.	5602.
1990	0.	17258.	0.	17258.	18149.	19113.	16295.	0.32200	0.	5247.
1991	0.	18213.	0.	18213.	18149.	19113.	17250.	0.28390	0.	4897.
1992	0.	19169.	0.	19169.	18149.	19113.	18206.	0.25032	0.	4557.
1993	0.	20125.	0.	20125.	18149.	19113.	19161.	0.22070	0.	4229.
1994	0.	21080.	0.	21080.	18149.	19113.	20117.	0.19459	0.	3915.
1995	0.	22036.	0.	22036.	18149.	19112.	21073.	0.17157	0.	3615.
1996	0.	22991.	4883.	18108.	18149.	0.	36252.	0.15127	0.	5484.
1997	0.	22991.	13742.	9208.	18149.	0.	27359.	0.13338	0.	3649.
1998	-31125.	22991.	14292.	8699.	18149.	0.	26849.	0.11760	-3660.	3157.
							TOTAL PRESENT VALUE		75332.	75332.

***** INTERNAL RATE OF RETURN: ***** 13.42 PER CENT (AFTER TAX)

***** PAY-OUT PERIOD: ***** 7.00 YEAR (AFTER TAX)
 (THE YEAR WHEN THE SHARE CAPITAL WILL BE PAID OUT BY THE ACCUMULATED TOTAL RETURN, FROM THE REG. OF OPERATION)

CAPITAL REQUIREMENTS

SITE PREPARATION	8760.
ERECTOR PLANT COST	245150.
PRE-OPERATING EXPENSES	10190.
INTEREST DURING CONSTRUCTION	16910.
TOTAL FIXED CAPITAL	281000.
PARTS, CATALYST & CHEMICALS	10770.
INITIAL WORKING CAPITAL	9570.
WORKING CAPITAL	19340.
TOTAL CAPITAL COST	300340.

SOURCE OF FUNDS

SHARE CAPITAL	90102.
LONG TERM DEBT	210238.
SHORT TERM DEBT	0.
FINANCIAL RESOURCES	300340.

*** ASEAN UREA FERTILIZER PROJECT (MALAYSIA) ***
 PROFITABILITY AND FINANCIAL INDICATORS
 UREA : WORLD AMACNIA : DOMESTIC
 UNIT: (US\$000)

YEAR	(1) AFT TAX PROFIT -TO- SALES REV S/M (PCT)	(2) AFT TAX PROFIT -TO- SALES REV S/M (PCT)	(3) SEB TAX PROFIT -TO- INVESTMENT (PCT)	(4) AFT TAX PROFIT -TO- CAPITAL (PCT)	(5) CURRENT RATIO	(6) QUICK RATIO	(7) DEBT SERVICE RATIO	(8) L/T DEBT -TO- EQUITY	(9) PROFIT RATIO CAPACITY UTILIZE (PCT)	(10) CASH RATIO SALES DRIVE (PCT)	(11) CASH RATIO CAPACITY UTILIZE (PCT)
1984	-3.1	-1.7	-0.5	-1.6	1.68	0.93	2.56	68./ 32.	59.3	146.7	37.6
1985	7.9	6.0	1.9	4.2	1.91	1.13	1.16	65./ 35.	71.7	170.3	73.0
1986	10.7	12.3	4.4	14.7	2.49	1.70	1.43	56./ 44.	73.5	153.5	71.9
1987	17.9	11.8	4.8	16.0	3.15	2.35	1.48	52./ 48.	69.2	149.9	70.6
1988	19.1	11.2	5.1	17.0	3.84	3.05	1.54	46./ 54.	67.8	147.8	69.2
1989	20.3	10.6	5.4	18.1	4.59	3.80	1.59	38./ 62.	66.4	145.6	67.8
1990	21.5	10.1	5.7	19.2	5.38	4.54	1.66	31./ 69.	65.0	143.5	66.4
1991	22.7	9.6	6.1	20.2	6.21	5.42	1.72	25./ 75.	63.6	141.3	65.0
1992	23.9	9.2	6.4	21.3	7.10	6.31	1.79	14./ 86.	62.3	139.2	63.6
1993	25.1	8.8	6.7	22.3	8.03	7.24	1.87	8./ 92.	60.9	137.1	62.3
1994	26.3	8.5	7.0	23.4	9.00	8.21	1.96	6./ 100.	59.5	134.9	60.9
1995	27.5	8.1	7.3	24.5	137.45	126.60	2.05	0./ 100.	58.1	132.8	59.5
1996	22.6	6.3	7.7	20.1	38.77	36.22	*****	0./ 100.	56.7	87.7	30.4
1997	11.5	3.1	7.7	13.2	18.58	17.52	*****	0./ 100.	56.7	87.7	30.4
1998	10.8	2.8	7.7	9.7	19.72	18.68	*****	0./ 100.	56.7	87.7	30.4
AVERAGE	18.0	7.8	5.6	16.1	17.86	16.25	*****	27./ 73.	63.0	133.7	57.3

ATTACHMENT

FINANCIAL PROJECTIONS

(Interest Rate: 4% per annum)

*** ASEAN UREA FERTILISER PROJECT (MALAYSIA) ***
 INCOME STATEMENTS (FIVE YEARS ENDING DECEMBER 31)
 UNIT: (US\$000)

(CASE 8-4) DATA : WORLD AMOUNT : DOMESTIC

	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994
PRODUCTION AND SALES											
PRODUCTION	280750.	360000.	445500.	445500.	445500.	445500.	445500.	445500.	445500.	445500.	445500.
INCREASE IN INVENTORIES	28875.	4125.	4125.	0.	0.	0.	0.	0.	0.	0.	0.
SALES VOLUME	259875.	391875.	441375.	445500.	445500.	445500.	445500.	445500.	445500.	445500.	445500.
SALES REVENUE	47323.	70933.	79496.	80217.	80217.	80217.	80217.	80217.	80217.	80217.	80217.
MAIN PRODUCTS	45479.	68578.	77241.	77962.	77962.	77962.	77962.	77962.	77962.	77962.	77962.
BY-PRODUCTS	1845.	2255.	2255.	2255.	2255.	2255.	2255.	2255.	2255.	2255.	2255.
COST OF SALES	39957.	54471.	56462.	56990.	56990.	56990.	56990.	56990.	56990.	56990.	56990.
VARIABLE COST	11931.	16098.	18044.	18044.	18044.	18044.	18044.	18044.	18044.	18044.	18044.
DEPRECIATION & AMORTIZATION	14928.	17913.	17913.	17913.	17913.	17913.	17913.	17913.	17913.	17913.	17913.
OTHER FIXED COST	17627.	21033.	21033.	21033.	21033.	21033.	21033.	21033.	21033.	21033.	21033.
(INC) IN PRODUCT INVENTORIES	-4429.	-573.	-528.	0.	0.	0.	0.	0.	0.	0.	0.
GROSS PROFIT OR (LOSS) ON SALES	7466.	16362.	23033.	23227.	23227.	23227.	23227.	23227.	23227.	23227.	23227.
LESS: SALES EXPENSES	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
OPERATING PROFIT OR (LOSS)	7466.	16362.	23033.	23227.	23227.	23227.	23227.	23227.	23227.	23227.	23227.
LESS: INTEREST											
ON LONG TERM DEBT	6925.	8310.	7555.	6799.	6044.	5288.	4539.	3777.	3022.	2266.	1511.
ON SHORT TERM DEBT	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
NET PROFIT OR (LOSS) BEFORE TAX	541.	8052.	15478.	16428.	17184.	17939.	18695.	19450.	20205.	20961.	21717.
LESS: INCOME TAX	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
NET PROFIT OR (LOSS) AFTER TAX	541.	8052.	15478.	16428.	17184.	17939.	18695.	19450.	20206.	20961.	21717.

*** AICAN UREA FERTILIZER PROJECT (MALAYSIA) ***
 INCOME STATEMENTS (FOR YEARS ENDING DECEMBER 31)
 (CASE 8-4) UNITA : MPOB AMONIA : DOMESTIC UNIT : (US\$000)

	1985	1986	1987	1988
PRODUCTION AND SALES				
PRODUCTION	44500.	44500.	44500.	44500.
INCREASE IN INVENTORIES	0.	0.	0.	0.
SALES VOLUME	44500.	44500.	44500.	44500.
SALES REVENUE	8021.	8021.	8021.	8021.
MAIN PRODUCTS	77962.	77962.	77962.	77962.
BY-PRODUCTS	2255.	2255.	2255.	2255.
COST OF SALES	56990.	56990.	56990.	56990.
VARIABLE COST	18044.	18044.	18044.	18044.
DEPRECIATION & AMORTIZATION	17913.	17913.	17913.	17913.
OTHER FIXED COST	21033.	21033.	21033.	21033.
(INCL. IN PRODUCT INVENTORIES)	0.	0.	0.	0.
GROSS PROFIT OR (LOSS) ON SALES	23227.	23227.	23227.	23227.
LESS. SALES EXPENSES	0.	0.	0.	0.
OPERATING PROFIT OR (LOSS)	23227.	23227.	23227.	23227.
LESS. INTEREST				
ON LONG TERM DEBT	775.	0.	0.	0.
ON SHORT TERM DEBT	0.	0.	0.	0.
NET PROFIT OR (LOSS) BEFORE TAX	22472.	23227.	23227.	23227.
LESS. INCOME TAX	0.	5862.	13865.	14369.
NET PROFIT OR (LOSS) AFTER TAX	22472.	17365.	9362.	9859.

*** ASEAN URFA FERTILIZER PROJECT (MALAYSIA) ***
 FUNDS FLOW STATEMENTS (FOR YEARS ENDING DECEMBER 31)
 UNIT: (US\$000)
 JPEA : WORLD AMUNIA : DOMESTIC

	1991	1992	1993	1994	1995	1986	1987	1988	1989	1990	1991
SOURCES OF FUNDS											
CASH GENERATED FROM OPERATION	69340.	118723.	59360.	52257.	34234.	41109.	41141.	41141.	41141.	41141.	41141.
PROFIT BEFORE TAX, INTEREST	0.	0.	0.	22294.	34275.	40547.	41141.	41141.	41141.	41141.	41141.
DEPRECIATION & AMORTIZATION	0.	0.	0.	7466.	14352.	23033.	23227.	23227.	23227.	23227.	23227.
FINANCIAL RESOURCES	89040.	118723.	59360.	14928.	17913.	17913.	17913.	17913.	17913.	17913.	17913.
SHARE CAPITAL	26712.	35616.	17898.	8904.	0.	0.	0.	0.	0.	0.	0.
LONG TERM DEBT	62328.	83107.	41552.	20776.	0.	0.	0.	0.	0.	0.	0.
SHORT TERM DEBT	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
INCREASE IN DEBT PAYABLE	0.	0.	0.	1183.	158.	162.	0.	0.	0.	0.	0.
USES OF FUNDS											
INVESTMENT IN FIXED ASSET	82318.	17723.	60770.	28849.	0.	0.	0.	0.	0.	0.	0.
LAND AND SITE IMPROVEMENT	7308.	1752.	0.	0.	0.	0.	0.	0.	0.	0.	0.
CONSTRUCTED FACILITIES	73345.	48060.	49030.	24515.	0.	0.	0.	0.	0.	0.	0.
PRE-INVEST. & START-UP EXP	1018.	3054.	5090.	1018.	0.	0.	0.	0.	0.	0.	0.
INTEREST DURING CONSTRUCTION	1247.	4157.	6650.	1316.	0.	0.	0.	0.	0.	0.	0.
INCREASE IN CURRENT ASSET	3231.	4308.	2154.	12604.	2329.	1615.	90.	0.	0.	0.	0.
OTHER THAN CASH	0.	0.	0.	7099.	1756.	1083.	90.	0.	0.	0.	0.
INCR(DECR) IN RECEIVABLES	0.	0.	0.	4429.	573.	528.	-0.	0.	0.	0.	0.
INCR(DECR) IN INVENTORIES	3231.	4308.	2154.	1077.	0.	0.	0.	0.	0.	0.	0.
PRODUCTS	0.	0.	0.	6925.	27194.	26443.	25687.	24931.	24175.	23420.	22665.
WATERALS	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
DEBT SERVICES	0.	0.	0.	18897.	18897.	18897.	18897.	18897.	18937.	18847.	18887.
REPAYMENT OF LONG TERM DEBT	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
REPAYMENT OF SHORT TERM DEBT	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
INTEREST ON LONG TERM DEBT	0.	0.	0.	4325.	5310.	7555.	6799.	6044.	5289.	4533.	3777.
INTEREST ON SHORT TERM DEBT	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
INCOME TAX PAYMENT	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
DIVIDENDS PAYMENT	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
CASH INCREASE OR (DECREASE)	2991.	7389.	-3564.	6479.	4907.	13056.	15364.	16210.	16955.	17721.	19476.
BEGINNING CASH BALANCE	0.	2991.	10380.	6416.	13635.	18402.	31658.	47022.	63231.	80197.	97917.
ENDING CASH BALANCE	2991.	10380.	6416.	13695.	18692.	31658.	47022.	63231.	80197.	97917.	116393.

*** ISFAN UREA FERTILIZER PROJECT (MALAYSIA) ***
 FUND FLOW STATEMENTS (FOR YEARS ENDING SEPTEMBER 31)
 (CASE 4-4) UREA : WORLD AMMONIA : DOMESTIC UNIT : (US\$000)

	1992	1993	1994	1995	1996	1997	1998
SOURCES OF FUNDS							
CASH GENERATED FROM OPERATION	41141.	41141.	41141.	41141.	41141.	41141.	41141.
PROFIT BEFORE TAX ADJUSTMENT	2327.	2327.	2327.	2327.	2327.	2327.	2327.
DEPRECIATION & AMORTIZATION	17913.	17913.	17913.	17913.	17913.	17913.	17913.
FINANCIAL RESOURCES	0.	0.	0.	0.	0.	0.	0.
SHARE CAPITAL	0.	0.	0.	0.	0.	0.	0.
LONG TERM DEBT	0.	0.	0.	0.	0.	0.	0.
SHORT TERM DEBT	0.	0.	0.	0.	0.	0.	0.
INCREASE IN ACCT PAYABLE	0.	0.	0.	0.	0.	0.	0.
USES OF FUNDS							
INVESTMENT IN FIXED ASSET	21909.	21154.	20309.	19642.	0.	5862.	13865.
LAND AND SITE IMPROVEMENT	0.	0.	0.	0.	0.	0.	0.
CONSTRUCTED FACILITIES	0.	0.	0.	0.	0.	0.	0.
PRE-INVEST. & START-UP EXP	0.	0.	0.	0.	0.	0.	0.
INTEREST DURING CONSTRUCTION	0.	0.	0.	0.	0.	0.	0.
INCREASE IN CURRENT ASSET	0.	0.	0.	0.	0.	0.	0.
OTHER THAN CASH	0.	0.	0.	0.	0.	0.	0.
INCR (DECR) ACC T RECEIVABLE	0.	0.	0.	0.	0.	0.	0.
INCR (LESS) IN INVENTORIES	0.	0.	0.	0.	0.	0.	0.
PRODUCTS	0.	0.	0.	0.	0.	0.	0.
MATERIALS	0.	0.	0.	0.	0.	0.	0.
DEBT SERVICES	21909.	21154.	20309.	19642.	0.	0.	0.
REPAYMENT OF LONG TERM DEBT	18987.	18987.	18987.	18987.	0.	0.	0.
REPAYMENT OF SHORT TERM DEBT	0.	0.	0.	0.	0.	0.	0.
INTEREST ON LONG TERM DEBT	3072.	2766.	1511.	755.	0.	0.	0.
INTEREST ON SHORT TERM DEBT	0.	0.	0.	0.	0.	0.	0.
INCOME TAX PAYMENT	0.	0.	0.	0.	0.	5862.	13865.
DIVIDENDS PAYMENT	0.	0.	0.	0.	0.	0.	0.
CASH INCREASE OF (DECREASE)	19232.	19987.	20743.	21498.	41141.	35279.	27276.
BEGINNING CASH BALANCE	116393.	135625.	155612.	176356.	197853.	238994.	274273.
ENDING CASH BALANCE	135625.	155612.	176356.	197853.	238994.	274273.	301549.

*** ASEAN FERTILIZER PROJECT (MALAYSIA) ***
 BALANCE SHEET (FIVE YEARS ENDING DECEMBER 31)
 AREA : WORLD AMMONIA : DOMESTIC
 UNIT: (US\$000)

	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991
ASSETS											
CURRENT ASSETS											
CASH	89040.	207760.	267120.	299524.	287847.	284600.	282141.	280437.	275489.	279296.	279859.
ACCOUNTS RECEIVABLE	6272.	17019.	16509.	35992.	43228.	57854.	73349.	89558.	106523.	124244.	142720.
INVENTORIES	2921.	10340.	6816.	13695.	18602.	31658.	47022.	69231.	80197.	97917.	116393.
PRODUCTS	0.	0.	0.	7098.	8856.	9937.	10027.	10027.	10027.	10027.	10027.
MATERIALS	3231.	7530.	9693.	4429.	5002.	5530.	5530.	5530.	5530.	5530.	5530.
NET FIXED ASSETS	82918.	199441.	250611.	262532.	244619.	226706.	208702.	190879.	172966.	155952.	137139.
INVESTMENT	82918.	199441.	250611.	277460.	277460.	277460.	277460.	277460.	277460.	277460.	277460.
LAND & SITE IMPROVEMENT	7038.	8760.	8760.	8760.	8760.	8760.	8760.	8760.	8760.	8760.	8760.
CONSTRUCTED FACILITIES	73548.	171605.	220635.	245150.	245150.	245150.	245150.	245150.	245150.	245150.	245150.
PRE-INVEST. & START-UP COSTS	10180.	4072.	9152.	10180.	10180.	10180.	10180.	10180.	10180.	10180.	10180.
INTEREST IN OTHER INVESTMENT	1247.	5404.	12054.	13370.	13370.	13370.	13370.	13370.	13370.	13370.	13370.
LESS DEPRECIATION & AMORTIZATION	0.	0.	0.	14924.	32841.	50754.	68668.	86591.	104474.	122408.	140321.
LIABILITIES	67328.	145432.	186984.	204943.	190214.	171459.	152602.	133715.	114827.	95940.	77053.
CURRENT LIABILITIES	0.	0.	0.	29070.	20229.	20391.	20391.	20391.	20391.	20391.	20391.
ACCOUNTS PAYABLE	0.	0.	0.	1183.	1342.	1504.	1504.	1504.	1504.	1504.	1504.
INCOME TAX PAYABLE	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
DIVIDENDS PAYABLE	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
CURRENT PORTION OF DEBT	0.	0.	0.	19887.	18887.	18887.	18887.	18887.	18887.	18887.	18887.
LONG TERM DEBT	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
SHORT TERM DEBT	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
FIXED LIABILITIES	67328.	145432.	186984.	188873.	169985.	151098.	132211.	113324.	94436.	75549.	56662.
LONG TERM DEBT BALANCE	67328.	145432.	186984.	188873.	169945.	151098.	132211.	113324.	94436.	75549.	56662.
STOCK HOLDERS EQUITY	26712.	62328.	80136.	89581.	97632.	113111.	129539.	146722.	164661.	183356.	202806.
SHARE CAPITAL	26712.	62328.	80136.	89040.	89040.	89040.	89040.	89040.	89040.	89040.	89040.
RETAINED EARNINGS	0.	0.	0.	541.	3592.	24071.	40499.	57682.	75621.	94316.	113766.

*** ASEAN UREA FERTILIZER PROJECT (MALAYSIA) ***
 BALANCE SHEET (FOR YEARS ENDING DECEMBER 31)
 (CASE 9-4) AREA : WORLD AMANDA : DOMESTIC
 UNIT : (US\$000)

	1992	1993	1994	1995	1996	1997	1998
ASSETS							
CURRENT ASSETS							
CASH	141952.	141039.	202691.	224199.	265920.	300609.	327875.
ACCOUNTS RECEIVABLE	134625.	156612.	176354.	147854.	238594.	274273.	201548.
INVENTORIES	10077.	10027.	10027.	10027.	10027.	10027.	10027.
PREPAID EXPENSES	6530.	5530.	5530.	5530.	5530.	5530.	5530.
PROPERTY	10770.	10770.	10770.	10770.	10770.	10770.	10770.
MATERIALS							
NET FIXED ASSETS	119226.	101312.	83399.	65486.	47572.	29659.	11746.
INVESTMENT							
LAND & SITE IMPROVEMENT	277440.	277440.	277460.	277460.	277460.	277440.	277460.
CONSTRUCTED FACILITIES	8760.	8760.	8760.	8760.	8760.	8760.	8760.
PRE-INVEST. & START-UP EXP	245150.	245150.	245150.	245150.	245150.	245150.	245150.
INTEREST DURING CONSTRUCTION	10180.	13370.	13370.	13370.	13370.	13370.	13370.
LESS DEPRECIATION & AMORTIZATION	155234.	176149.	194061.	211674.	229898.	247801.	265714.
LIABILITIES							
CURRENT LIABILITIES							
ACCOUNTS PAYABLE	56146.	39278.	29391.	1504.	7366.	15354.	15872.
INCOME TAX PAYABLE	20391.	20391.	20391.	1504.	7365.	15364.	15872.
DIVIDENDS PAYABLE	1504.	1504.	1504.	1504.	1504.	1504.	1504.
CURRENT PORTION OF DEBT	0.	0.	0.	0.	5852.	13865.	18368.
LONG TERM DEBT	18887.	18887.	18887.	0.	0.	0.	0.
SHORT TERM DEBT	0.	0.	0.	0.	0.	0.	0.
FIXED LIABILITIES							
LONG TERM DEBT BALANCE	37775.	18897.	0.	0.	0.	0.	0.
STOCKHOLDERS EQUITY							
SHARE CAPITAL	223011.	243972.	265699.	289161.	305527.	314889.	323748.
RETAINED EARNINGS	69040.	89040.	89040.	89040.	89040.	89040.	89040.
	133972.	154913.	176649.	199121.	216487.	225849.	234708.

*** ISTEAN UREA FERTILIZER PROJECT (MALAYSIA) ***

(CASE B-4) UNIT: (US\$000)

	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994
REPRODUCTION (VOLUME)	289730.	396000.	445500.	445500.	445500.	445500.	445500.	445500.	445500.	445500.	445500.
UREA	1300.	1906.	2145.	2145.	2145.	2145.	2145.	2145.	2145.	2145.	2145.
AMMONIA	6321.	8576.	9599.	9599.	9599.	9599.	9599.	9599.	9599.	9599.	9599.
NATURAL GAS	7711.	10482.	11744.	11744.	11744.	11744.	11744.	11744.	11744.	11744.	11744.
UREA	1211.	1661.	1869.	1869.	1869.	1869.	1869.	1869.	1869.	1869.	1869.
AMMONIA	651.	984.	989.	989.	989.	989.	989.	989.	989.	989.	989.
ELECTRICITY	1823.	2545.	2858.	2858.	2858.	2858.	2858.	2858.	2858.	2858.	2858.
UREA	382.	523.	589.	589.	589.	589.	589.	589.	589.	589.	589.
AMMONIA	823.	1116.	1249.	1249.	1249.	1249.	1249.	1249.	1249.	1249.	1249.
RAW WATER MAKE-UP	1204.	1639.	1838.	1838.	1838.	1838.	1838.	1838.	1838.	1838.	1838.
UREA	281.	317.	356.	356.	356.	356.	356.	356.	356.	356.	356.
AMMONIA	822.	1115.	1248.	1248.	1248.	1248.	1248.	1248.	1248.	1248.	1248.
CATALYST AND CHEMICALS	1053.	1432.	1604.	1604.	1604.	1604.	1604.	1604.	1604.	1604.	1604.
VARIABLE COST	11031.	16099.	18044.	18044.	18044.	18044.	18044.	18044.	18044.	18044.	18044.
DEPRECIATION (PLANT)	13619.	16343.	16343.	16343.	16343.	16343.	16343.	16343.	16343.	16343.	16343.
DEPRECIATION (INF-COST)	566.	679.	679.	679.	679.	679.	679.	679.	679.	679.	679.
DEPRECIATION (INTEREST P.C.)	743.	891.	891.	891.	891.	891.	891.	891.	891.	891.	891.
DEPRECIATION	14928.	17913.	17913.	17913.	17913.	17913.	17913.	17913.	17913.	17913.	17913.
AMORTIZATION	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
DEPRECIATION & AMORTIZATION	14928.	17913.	17913.	17913.	17913.	17913.	17913.	17913.	17913.	17913.	17913.
MAINTENANCE AND REPAIR	6129.	7354.	7354.	7354.	7354.	7354.	7354.	7354.	7354.	7354.	7354.
OPERATION LABOUR	4537.	5444.	5444.	5444.	5444.	5444.	5444.	5444.	5444.	5444.	5444.
TITLEHEAD	6925.	8166.	8166.	8166.	8166.	8166.	8166.	8166.	8166.	8166.	8166.
LAND, PENT	57.	68.	68.	68.	68.	68.	68.	68.	68.	68.	68.
OTHER FIXED COST	17527.	21033.	21033.	21033.	21033.	21033.	21033.	21033.	21033.	21033.	21033.
FX-FACTORY PRODUCTION COST	44236.	58044.	58990.	58990.	58990.	58990.	58990.	58990.	58990.	58990.	58990.
UNIT DIRECT OPERATING COST	0.1534.	0.1300.	0.1279.	0.1279.	0.1279.	0.1279.	0.1279.	0.1279.	0.1279.	0.1279.	0.1279.
SALES EXPENSES	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
INTEREST ON LONG TERM DEBT	6325.	8310.	7555.	6799.	6044.	5288.	4523.	3777.	3022.	2266.	1511.
INTEREST ON SHORT TERM DEBT	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
TOTAL PRODUCTION COST	51211.	53355.	64545.	63789.	63034.	62278.	61523.	60767.	60012.	59256.	58501.
UNIT PRODUCTION COST	0.1774.	0.1300.	0.1449.	0.1432.	0.1415.	0.1398.	0.1381.	0.1364.	0.1347.	0.1330.	0.1313.

*** ASPAN UREA FERTILIZER PROJECT (MALAYSIA) ***
 PRODUCTION COST STATEMENTS

(CASE 7-4)

UREA : WORLD AMMONIA : DOMESTIC

UNIT : (US\$000)

	1995	1996	1997	1998
PRODUCTION (VOLUME)	445570	445500	445500	445500
UREA	2145	2145	2145	2145
AMMONIA	9599	9599	9599	9599
NATURAL GAS	11744	11744	11744	11744
UREA	1809	1809	1809	1809
AMMONIA	989	989	989	989
ELECTRICITY	2858	2858	2858	2858
UREA	589	589	589	589
AMMONIA	1249	1249	1249	1249
RAW WATER MAKE-UP	1838	1838	1838	1838
UREA	356	356	356	356
AMMONIA	1248	1248	1248	1248
CATALYST AND CHEMICALS	1604	1604	1604	1604
VARIABLE COST	18044	18044	18044	18044
DEPRECIATION (PLANT)	16343	16343	16343	16343
DEPRECIATION (PRE-OP)	679	679	679	679
DEPRECIATION (INTEREST P.C.)	891	891	891	891
DEPRECIATION	17913	17913	17913	17913
SMOKE TITRATION	0	0	0	0
DEPRECIATION & AMORTIZATION	17913	17913	17913	17913
MAINTENANCE AND REPAIR	7354	7354	7354	7354
OPERATION LABOR	5444	5444	5444	5444
OVERHEAD	8166	8166	8166	8166
LAND RENT	68	68	68	68
OTHER FIXED COST	21033	21033	21033	21033
EX-FACTORY PRODUCTION COST	56990	56990	56990	56990
UNIT DIRECT OPERATING COST	0.1279	0.1279	0.1279	0.1279
SALES EXPENSES	0	0	0	0
INTEREST ON LONG TERM DEBT	705	0	0	0
INTEREST ON SHORT TERM DEBT	0	0	0	0
TOTAL PRODUCTION COST	57746	56990	56990	56990
UNIT PRODUCTION COST	0.1294	0.1279	0.1279	0.1279

*** ASPAN UREA FERTILIZER PROJECT (MALAYSIA) ***
 UNIT: (US\$000)
 (CASE R-4) UREA : WAPLO AMMONIA : DOMESTIC

YEAR	TOTAL INVESTMENT	PROFIT BEFORE TAX	DEPRECIATION	INTEREST ON DEBT	RETURN ON DEBT TAX	(BEFORE TAX)		DISCOUNT FACTOR	(IFSS) INCOME TAX	RETURN AFTER TAX	DISCOUNT FACTOR	(AFTER TAX)			
						PRESENT VALUE	INVEST.					PRESENT VALUE	RETURN		
1981	84802.	0.	0.	0.	0.	84802.	0.	1.0000	0.	0.	1.0000	84802.	0.		
1982	107174.	0.	0.	0.	0.	97916.	0.	0.9136	0.	0.	0.9173	98311.	0.		
1983	63130.	0.	0.	0.	0.	52694.	0.	0.8347	0.	0.	0.8414	53120.	0.		
1984	28324.	541.	14528.	6925.	22394.	21600.	17077.	0.7626	0.	22394.	0.7719	21862.	17285.		
1985	0.	3052.	17513.	9310.	34275.	0.	23880.	0.6967	0.	34275.	0.7080	0.	24268.		
1986	0.	15478.	17513.	7555.	40947.	0.	26064.	0.6365	0.	40947.	0.6495	0.	26594.		
1987	0.	16429.	17513.	6044.	41141.	0.	23925.	0.5815	0.	41141.	0.5958	0.	24510.		
1988	0.	17186.	17513.	5238.	41141.	0.	19570.	0.5313	0.	41141.	0.5465	0.	22483.		
1989	0.	17939.	17513.	4533.	41141.	0.	18245.	0.4854	0.	41141.	0.5013	0.	20624.		
1990	0.	18450.	17513.	3777.	41141.	0.	16669.	0.4435	0.	41141.	0.4598	0.	18918.		
1991	0.	18695.	17513.	3222.	41141.	0.	15229.	0.4052	0.	41141.	0.4218	0.	17354.		
1992	0.	20236.	17513.	2266.	41141.	0.	13914.	0.3702	0.	41141.	0.3869	0.	15919.		
1993	0.	20961.	17513.	1511.	41141.	0.	12712.	0.3392	0.	41141.	0.3549	0.	14602.		
1994	0.	21717.	17513.	755.	41141.	0.	11614.	0.3090	0.	41141.	0.3256	0.	13395.		
1995	0.	22472.	17513.	0.	41141.	0.	10611.	0.2823	5862.	38279.	0.2987	0.	12287.		
1996	0.	23227.	17513.	0.	41141.	0.	9694.	0.2579	13865.	27276.	0.2740	0.	9665.		
1997	0.	23227.	17513.	0.	41141.	0.	8857.	0.2356	14368.	26773.	0.2513	0.	6854.		
1998	-31096.	23227.	17513.	0.	41141.	-6692.	8857.	0.2153	14368.	26773.	0.2305	-7165.	6172.		
TOTAL PRESENT VALUE						250320.	250320.							250929.	250929.

***** INTERNAL RATE OF RETURN ***** 9.46 PER CENT (BEFORE TAX) 9.02 PER CENT (AFTER TAX)

***** PAY-OFF PERIOD ***** 7.84 YEAR (BEFORE TAX) 7.84 YEAR (AFTER TAX)
 (THE YEAR WHEN THE TOTAL CAPITAL COST WILL BE PAID OUT BY ACCUMULATED TOTAL RETURN, FROM THE B.G. OF OPERATION)

CAPITAL REQUIREMENTS

SITE PREPARATION	8760.
ERECTED PLANT COST	245150.
PRE-OPERATING EXPENSE	10180.
INTEREST DURING CONSTRUCTION	13370.
TOTAL FIXED CAPITAL	277460.
PARTS, CATALYST & CHEMICALS	10770.
INITIAL WORKING CAPITAL	8570.
WORKING CAPITAL	19340.
TOTAL CAPITAL COST	296800.

SOURCE OF FUNDS

SHARE CAPITAL	89040.
LONG TERM DEBT	207760.
SHORT TERM DEBT	0.
FINANCIAL RESOURCES	296800.

*** ASEAN UREA FERTILIZER PROJECT (MALAYSIA) ***
 IFR CALCULATION ON SHARE CAPITAL
 (CASE B-4) UREA : WORLD AMMONIA : DOMESTIC
 UNIT: (US\$000)

YEAR	SHARE CAPITAL (OUT)	PAYMENT RECEIVED TAX	(LESS) INCOME TAX	OPERATING AFTER TAX	DEPRECIATION	(LESS) NET DEBT REPAYMENT	TOTAL RETURN (IN)	DISCOUNT FACTOR	DISCOUNTED CASH FLOW
1981	26712	0	0	0	0	0	0	1.00000	26712
1982	35616	0	0	0	0	0	0	0.87062	31008
1983	17804	0	0	0	0	0	0	0.75759	13408
1984	8904	341	0	541	14928	19487	15460	0.65992	10208
1985	0	8052	0	8052	17913	18887	14504	0.57454	4066
1986	0	15478	0	15478	17913	18887	14504	0.50021	7255
1987	0	16428	0	16428	17913	18887	14504	0.43550	6730
1988	0	17184	0	17184	17913	18887	14504	0.37915	6146
1989	0	17939	0	17939	17913	18887	14504	0.33010	5600
1990	0	18695	0	18695	17913	18887	14504	0.28739	5093
1991	0	19450	0	19450	17913	18887	14504	0.25021	4623
1992	0	20206	0	20206	17913	18887	14504	0.21784	4189
1993	0	20961	0	20961	17913	18887	14504	0.18946	3791
1994	0	21717	0	21717	17913	18887	14504	0.16512	3425
1995	0	22472	0	22472	17913	18887	14504	0.14376	3091
1996	0	23227	5662	17565	17913	18887	14504	0.12516	4416
1997	0	23227	13685	9542	17913	18887	14504	0.10897	2972
1998	-31886	23227	14569	8658	17913	18887	14504	0.09487	2540
									74145

**** INTERNAL RATE OF RETURN ***** 14.86 PER CENT (AFTER TAX)
 ***** PAY-CUT PERIOD ***** 6.19 YEAR (AFTER TAX)
 (THE YEAR WHEN THE SHARE CAPITAL WILL BE PAID OUT BY THE ACCUMULATED TOTAL RETURN, FROM THE BEG. OF OPERATION)

CAPITAL REQUIREMENTS

SITE PREPARATION	8760
EXPECTED PLANT COST	245150
PRE-OPERATING EXPENSES	10180
INTEREST DURING CONSTRUCTION	13370
TOTAL FIXED CAPITAL	277460
PEPT,CATALYST & CHEMICALS	10770
INITIAL WORKING CAPITAL	3570
WORKING CAPITAL	19340
TOTAL CAPITAL COST	296800

SOURCE OF FUNDS

SHARE CAPITAL	89040
LONG TERM DEBT	207760
SHORT TERM DEBT	0
FINANCIAL RESOURCES	296800

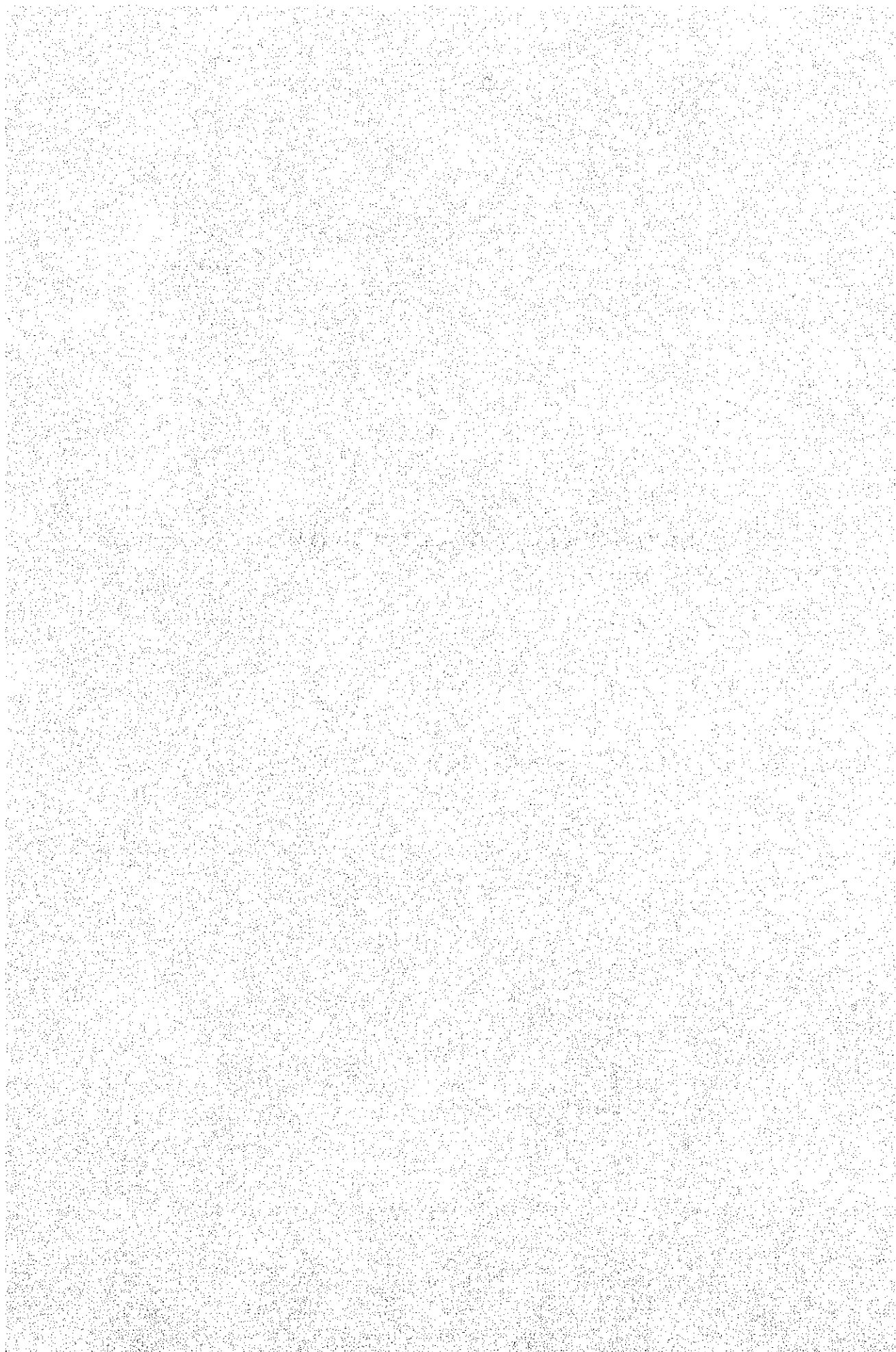
*** ASEAN UREA FERTILIZER PROJECT (MALAYSIA) ***
 PROFITABILITY AND FINANCIAL INDICATORS
 UREA : WORLD AMMONIA : DOMESTIC
 UNIT: (US\$000)

(CASE B-4)

YEAR	(1) APT TAX PROFIT -TO- SALES REV (PCT)	(2) APT TAX PROFIT -TO- S/H EQUITY (PCT)	(3) APT TAX PROFIT -TO- INVESTMENT (PCT)	(4) APT TAX PROFIT -TO- CAPITAL (PCT)	(5) CURRENT RATIO	(6) QUICK RATIO	(7) DEBT SERVICE RATIO	(8) L/T DEBT -TO- S/H EQUITY	(9) PROFIT R.E.D. CAPACITY UTILIZE (PCT)	(10) CASH R.E.D. SALES PRICE (PRICE)	(11) CASH R.E.D. CAPACITY UTILIZE (PCT)
1984	1.1	0.6	0.2	0.6	1.79	1.04	3.23	68.7/32.	56.4	139.6	35.0
1985	11.4	6.2	2.7	9.0	2.14	1.36	1.26	64.7/36.	68.1	164.2	60.5
1986	19.5	13.7	5.2	17.4	2.84	2.04	1.55	57.7/43.	67.3	148.4	68.7
1987	20.5	12.7	5.5	18.5	3.60	2.80	1.60	51.7/49.	66.2	145.4	67.6
1988	21.4	11.7	5.8	19.3	4.39	3.59	1.65	44.7/56.	65.1	143.7	66.5
1989	22.4	10.9	6.0	20.1	5.22	4.42	1.70	36.7/64.	64.0	142.0	65.4
1990	23.3	10.2	6.3	21.0	6.09	5.29	1.76	29.7/71.	62.0	140.3	64.3
1991	24.2	9.6	6.6	21.8	7.00	6.20	1.82	22.7/78.	61.8	138.6	63.3
1992	25.2	9.1	6.9	22.7	7.94	7.14	1.88	14.7/86.	60.8	136.9	62.2
1993	26.1	8.6	7.1	23.5	8.92	8.12	1.94	7.7/93.	59.7	135.2	61.1
1994	27.1	8.2	7.3	24.4	9.94	9.14	2.02	0.7/100.	58.6	133.5	60.0
1995	28.0	7.8	7.6	25.2	11.09	13.25	2.09	0.7/100.	57.5	131.8	58.9
1996	21.6	5.7	7.8	19.5	36.72	33.81	*****	0.7/100.	56.4	87.7	30.4
1997	11.7	3.0	7.8	19.56	18.50	18.50	*****	0.7/100.	56.4	87.7	30.4
1998	11.0	2.7	7.8	20.66	20.66	19.63	*****	0.7/100.	56.4	87.7	30.4
AVERAGE	19.0	9.2	6.0	17.6	19.01	17.42	*****	26.7/74.	61.2	130.8	55.6

PART VII

ECONOMIC EVALUATION



PART VII ECONOMIC EVALUATION

CHAPTER 1 INTRODUCTION

Natural gas is the most economical among various materials which are available for use as the feedstock to manufacture ammonia, the intermediate for manufacturing urea. The Project is to set up an ammonia and urea complex in Malaysia with joint investment by the ASEAN member states. It primarily aims at producing urea at an economical cost by using natural gas available in Malaysia in order to meet the increasing demand for urea in Malaysia and other ASEAN countries. In addition, the Complex will also produce ammonia to be supplied to the domestic Malaysian market in order to supplement the domestic supply of ammonia which is insufficient to meet its demand in Malaysia.

The economic importance of this Project can be defined on two different angles; one is for Malaysia, the host country for the Project, and the other for other four ASEAN countries. For Malaysia, the importance will be the contribution to her national economy in the following terms;

- (a) the value-adding of indigenous natural resources which could be attained by means of producing ammonia and urea, efficiently utilizing natural gas and labor resources available in the country, and
- (b) foreign exchange savings or earnings which could be gained through the supply of the produced urea and ammonia to the domestic Malaysian markets as well as the exportation of the urea to other ASEAN markets.

On the other hand, for the other ASEAN countries, it should be the expansion of investment opportunities as well as the assurance of stable supply source of economical urea which could contribute to further development of their economy. Furthermore, the implementation of this Project may serve as a foothold for evolving an ASEAN common market and other joint developments.

From the above viewpoint, the Evaluation Study Team has made quantitative analysis on the economic benefits of this Project to Malaysia while qualitatively evaluating the economic effects of this Project to the other ASEAN member countries.

CHAPTER 2 ASSESSMENT OF THE ECONOMIC INTERNAL RATE OF RETURN OF THIS PROJECT

First an assessment of economic benefits and costs of this Project had been made. Then the economic internal rate of return was computed for the Project on the basis of the thus-assessed economic benefits and costs. These analyses were made from the standpoint of Malaysia.

2-1 Economic Benefits of this Project

The economic benefits are evaluated separately as direct benefits and indirect benefits.

2-1-1 Direct benefits

The direct benefits can be assessed as the economic value of the produced urea and ammonia (for sale) which will be gained through the contemplated investment. As is stated in Part II, the produced urea will be supplied primarily to Malaysia and other ASEAN countries in order to meet their demand, and any surplus will be exported to outside the ASEAN region.

Most of urea requirements in ASEAN countries other than Indonesia are so far met by imports. Malaysia is the urea importer as well, and the domestic production of urea which substitutes for imported urea therefore would result in substantial economic benefits. Other countries will need to continue the importation of urea to meet their increasing demand, unless they also expand their domestic production capacity.

In light of the "scale economy" in capital-intensive industries such as urea manufacturing and also of the "comparative advantage" of natural gas in the production of urea, it is obvious to say that the development of centralized production in gas producing countries by joint investment should be essentially more beneficial to all ASEAN countries than separate production in each country. Therefore, this Project would bring economic benefits to urea importing countries in ASEAN if they would receive the urea produced at the Complex at a price comparable to international market prices. The surplus not

consumed in ASEAN countries will be exported to outside the ASEAN region. If the entity established for this Project can gain any profit from such export at the price mentioned above, it should be an economic benefit not only to Malaysia but also to other ASEAN members who have invested in this Project.

As is stated in Chapter 4 of Part II, it is predicted that the export price of urea which is competitive with the international prices will be US\$175 per ton of bulk urea and US\$205 per ton of ammonia - FOB in a 1984 constant price. The economic benefit for Malaysia will be primarily the revenue of the Project entity earned by exporting to ASEAN countries and also outside the ASEAN region at such an internationally competitive price as mentioned above.

2-1-2 Indirect benefits

Indirect benefits of this Project can be generally defined as follows:

(1) Increase in employment opportunities

One of the indirect benefits of this Project will be an increase in employment opportunities in Malaysia with the employment of labors for plant construction and operation of this Project.

(2) Extensive effects to related industries

Extensive effects of this Project to related industries include the increase in demand for construction materials such as steel materials and cement, and stimulation for the development of engineering and construction industries. Also the increase of demands for various materials which will be used for the operation of the plant and the packing and shipment of the produced product.

(3) Contribution to the development of regional economy

This Project will contribute directly or indirectly to the development of the regional economy in the State of Sarawak through an increase in demands of transport and service sectors which will arise due to plant construction and operation in the Project.

The implementation of this Project will, as is stated above, bring various indirect benefits to Malaysia where the Project is located. Quantitative assessment in strict terms of these benefits is rather difficult. If such benefits are assessed, they should tend to be subjective. From such a viewpoint, the indirect benefits were not accounted in the computation of the economic internal rate of return of the Project.

2-2 Economic Costs

Economic costs of this Project may be as follows:

- (1) Initial cost incurred in the implementation of this Project (capital cost)
- (2) Cost of the natural gas resources consumed for the production of ammonia and urea
- (3) Cost of labor resources consumed
- (4) Other costs required for the production

(1) Initial cost

Initial costs incurred in the implementation of this Project include the capital cost for the Complex, pre-operation expenses and initial working capital. The amount of such initial costs was estimated by deducting the cost of paid-tax in Malaysia from the capital cost used for the computation of the financial internal rate of return, that is, the capital requirement of the Project less the interest during construction.

(2) Cost of the natural gas resources

Indigenous natural gas available in Malaysia will be used for the feedstock. This means the consumption of scarce natural gas resources in economic terms. In order to compute the cost of the consumed natural gas resources, it is necessary to assess the economic value of the gas resources.

The price of natural gas has been set at US\$ 0.70/MMBTU (as of 1st January, 1979) with certain escalation for this Project in accordance with the agreement made at

the ASEAN Economic Ministers Meeting. The opportunity cost of gas resources, however, should be assessed in due consideration of gas price for the LNG which is a large consumer of natural gas. The gas cost for LNG is estimated at US\$1.32/MMBTU if it is calculated by deducting liquefaction cost and freight from the CIF price of LNG in importing countries. This analysis, therefore, was made on the basis of the above cost (US\$1.32/MMBTU).

(3) Cost of labor resources

This Project will require the employment of high-skilled labors scarcely available in Malaysia. It is not appropriate, therefore, to apply shadow wages. From this point of view, the assessment of economic costs was made on the basis of prevailing wage rates.

(4) Other costs required for the production

Other costs required for the production include the cost of catalysts and chemicals consumed for the production, maintenance cost of equipment and machinery, etc. A shadow foreign exchange rate was applied to the assessment of the above costs. *)

The taxes to be imposed under the Malaysian tax laws were excluded from the cost items, since these are regarded as transferable costs from the point of Malaysian nation.

2-3 Economic Internal Rate of Return

On the basis of the above-mentioned economic benefits and costs of this Project, the economic internal rate of return was computed for an economic life of 15 years. Thus-

(Note) *) The shadow exchange rate was computed by the following steps:

- (1) assessment of standard conversion rate, and
- (2) assessment of prevailing exchange rate by means of applying the thus-obtained standard conversion factor. The formula and input data used for this computation are given in Table VII-2.

computed return rate is 9.4%, which is close to the financial internal rate of return before tax. (The details are shown in Table VII-1.) To meet the special nature of this Project, the Malaysian Government has assured to supply the natural gas at a concessional price. On the other hand, however, it is likely that the Project could bring various economic benefits to the nation. Thus, in overall terms, it is assessed that the Project will gain justifiable economic returns on investments.

CHAPTER 3 OTHER ECONOMIC BENEFITS AND OVERALL EVALUATION

In addition to the economic return, this Project will greatly contribute to foreign exchange earnings or savings particularly for Malaysia. Furthermore, this Project will serve as a foothold for the ASEAN countries to develop a common market and expand joint investment opportunities, thereby promoting industrialization and economic development in the whole of the ASEAN region which are based on "economies of scale" and "comparative advantage" of each joint project.