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**IMPACT OF THE POLICY REGIME ON THE HEALTH  
OF INDIAN FERTILISER INDUSTRY**

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# Impact of the Policy Regime on the Health of Indian Fertiliser Industry

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Agriculture has a very important place in Indian economy, which contributes about 25% in GDP. In addition, agriculture has a special role in Indian society to meet the food grain requirements of the growing population of the country, which has already crossed one billion. Therefore, fertilisers have been considered as an essential input to Indian agriculture to meet the targets of food production. India is the third largest producer and consumer of fertilisers in the world. The 1956 industrial policy of Govt. of India recognised fertilisers as a core sector for investment. Consequently several plants were set up for producing various fertilisers such as urea, di-ammonium phosphate (DAP), ammonium sulphate (AS), calcium ammonium nitrate (CAN), single super phosphate (SSP) and complex fertilisers.

## **Production and Consumption of Urea, DAP and NPK Fertilisers**

Urea is the most widely used nitrogenous fertiliser worldwide and it constitutes about 80% of 'N' produced in India. The growth in urea and DAP/NPK production capacity from the year 1970-71 to 2001-02 is indicated in the table below:

**Table-1: Decade-wise Growth in Capacity of Urea & DAP/NPK**

Year	Urea		DAP/NPK	
	Urea Capacity ('000 t)	% increase over previous decade	Capacity ('000 t)	% increase over previous decade
1970-71	1 581	-	433	-
1980-81	7 525	376	1 334	208
1990-91	14 695	95	2 751	106
2001-02	20 849	42	5 248	91

There has been a significant increase in consumption and production of fertilisers between 1977 and 1997 on account of steady pricing policies pursued by the Govt. of India. This resulted into substantial increase in the foodgrain production at around 26% per decade as under:

**Table-2: Foodgrain production and Consumption of Nutrients**

Year	Foodgrain Production (million tonne)	Consumption of Plant Nutrients (kg/ha)
1961-62	83	2
1971-72	105	16
1981-82	133	34
1991-92	168	70
2001-02	211	91

The nutrient consumption level in India at present is around 91 kg per hectare, when compared to developed countries of more than 300 kg per hectare, this leaves further scope in the consumption growth.

However, in view of better crop response of ‘N’ fertilisers for paddy and wheat at 12 kg per kg of ‘N’ compared to 7 kg/kg of P<sub>2</sub>O<sub>5</sub> and 5 kg/kg of K<sub>2</sub>O, the growth in consumption levels of “N” has been higher than the phosphatic and potassic fertilisers.

In India, no new urea plant has been set up after 1999 due to stagnation in the consumption levels, limitation of feed stock availability and lack of clarity on fertiliser pricing policy. Considering some growth in demand in the near future, and, availability of cheaper feedstock outside India, IFFCO and KRIBHCO from India and Oman Oil Company from Oman, have joined together to set up a 1.65 Mt/a urea project in Oman. The zero date of the Oman India Fertiliser project was 15th August, 2002 and it is scheduled for completion within 35 months. However, considering the recent discovery of large natural gas reserves in Krishna-Godavari basin, the situation would certainly change. More urea plants are now expected to come up in India. In the light of finding of new gas reserves, KRIBHCO has revived its interest in expansion of its Hazira urea project and IFFCO is also seriously considering reviving its grassroots urea project in Nellore.

### **Impact of Fertiliser Pricing Policy on Foodgrain Production**

Urea has played a big role for the increase in the foodgrain production and making the country self-reliant. Most of the farmers being marginal and small, the capacity to afford the use of chemical fertilisers are largely dependent on the pricing pattern. Therefore, in Indian scenario it is imperative to keep the fertiliser prices at affordable levels, otherwise foodgrain production can be affected adversely. This aspect should be properly addressed while formulating a policy. Although there has been a lot of discussions on agriculture subsidy in developing countries, like India but in fact the subsidy in these countries is much less than the farm subsidies prevailing in the developed countries. The comparison of farm subsidies in developed countries like USA, Japan, EC and in India is as below:

**Table-3: Farm Subsidies in developed Countries vs India – 1998**

<b>Country</b>	<b>Total Subsidy (in US\$ billion)</b>	<b>As a percentage of Gross Domestic Product from Agriculture (AGDP)</b>
EC	122.95	45 %
Japan	49.96	62 %
USA	48.44	22 %
India	6.71	6.8 %

The same has been proven after the decontrol of phosphatic and potassic fertilisers in 1992-93, which resulted into drop in consumption of these fertilizers as is shown in table below. Production of P<sub>2</sub>O<sub>5</sub> declined from about 3.3 Mt in 1991-92 to 2.7 Mt in 1993-94 and picked up again in 1994-95 after introduction of adhoc concession scheme.

**Table-4: Consumption of Phosphatic Fertilisers  
(in terms of '000 t P<sub>2</sub>O<sub>5</sub>)**

Year	Consumption of Phosphatic Fertilisers
1985-86	2 005
1988-89	2 721
1991-92	3 321
1992-93	2 844
1993-94	2 669
1994-95	2 932
1996-97	2 977
1997-98	3 914
1999-00	4 798
2001-02	4 382

The price of urea vis-a-vis those of the phosphatic and potassic fertilisers decides the NPK nutrient consumption ratio, which is very necessary for balanced use of fertilisers. Indian agriculture is yet to achieve the ideal NPK consumption ratio of 4:2:1. The NPK consumption ratio, which had distorted to 9.5 : 3.2 : 1 at the time of decontrol of phosphatic fertilisers in 1992-93, has gradually improved to 6.7 : 2.6 : 1 in 2001-02 due to the efforts of the Government for providing a balanced pricing of the nutrients. However, it needs some more efforts to bring it more close to the ideal nutrient consumption ratio.

The foodgrain production, which has now crossed the 200 Mt mark, has been stagnant for quite some time. It is expected to decline during 2002-03 due to widespread draught in the country but to pick up in 2003-04 due to good monsoon. The target of foodgrain production for 2011-12 is 337 Mt. To achieve these targets of foodgrain production, further increase in the consumption of fertilisers is essential.

The trend of growth in population, food-grain production and consumption of nutrients, are given as **Annexure-I**.

The fertiliser usage efficiency in Indian agriculture also needs to be given due attention. The efficiency can increase by granules and coatings. The present response ratio of nutrients is considered as 6.5, which needs to be augmented to at least 8.0. This will need balanced use of fertilisers, fortification by micronutrients, use of bio-fertilisers, green & organic manures and granulated & coated fertilisers. Favourable policy is required to promote value addition to fertilizers by allowing industry to recover the additional cost of value addition.

### **Impact on Social Role of Fertiliser Manufacturers**

The Indian fertiliser manufacturers have been playing a major social role also by way of various services to the farmers. In case of imported fertilisers, these benefits get restricted. Therefore, encouragement to the indigenous fertiliser manufacturers, by way of pricing policies, indirectly benefits the society also. For example, IFFCO, being a fertiliser manufacturer and marketer, provides various services to the farmers to uplift them educationally, socially and economically. It provides support to cooperative societies for sharing of benefits among the poor.

The Cooperative Rural Development Trust (CORDET) founded and funded by IFFCO has trained about 75,000 farmers during the last 10 years and undertook production and distribution of bio-fertilisers, seeds, plant samplings, etc.

IFFCO promoted Indian Farm Forestry Cooperative Ltd. (IFFDC), which undertakes various projects in Farm Forestry and waste land development at the village level to help the poor for self sustenance. Under this scheme, tree plantations have been done over 20,000 hectare land and about 4,600 hectare waste land has been transformed to green forest. IFFDC is also working on cultivation of non-edible oil seeds such as Jatropha and its use in production of bio-fuel. This will also provide employment to poor and marginal farmers.

In pursuit of concern for the farmers in India, IFFCO has facilitated for coordinated research work in agriculture and fertiliser technology through IFFCO Professors Chairs in 16 Universities / Institutes and planning to provide agriculture related information to the farmers for improvement in farm productivity and profitability.

Under the Integrated Rural Development Programme through IFFCO Plants, IFFCO encourages village adoptions on annual basis for providing basic necessities and environmental awareness to rural poor farmers.

Massive relief operations were provided in Kutch region during the earthquake in January, 2001 and IFFCO was instrumental in founding 'Kisan Sewa Fund' to boost rehabilitation / reconstruction work in many earthquake affected villages. About 800 totally destroyed houses have been re-constructed and about 450 partially damaged houses have been repaired in addition to construction of infrastructure facilities in 20 affected villages at an expenditure of over Rs. 200 million.

### **Urea Pricing and Subsidy**

Although the selling price of urea has been under the control of the Govt. Of India right from inception, a Retention Pricing Scheme (RPS) was introduced in 1977-78 for the purpose of subsidy. Under the scheme the difference between the notified sale price and the retention price is paid as subsidy.

The retention price was the cost of production as assessed by the Government plus 12% return on net worth fixed unit wise based on the Capital Cost of the project, vintage of the plant and feedstock consumption norms, etc.

At the time of introduction of RPS, the weighted average retention prices used to be more or less the same compared to the C&F prices of imported urea. These prices were also in consonance with the farmgate prices fixed by the Government. However, in late 1980s, the retention prices started increasing compared to a marginal increase in the imported urea prices but the farmgate prices more or less remained same resulting into increase in subsidy outgo.

In early 1990s, the retention prices were higher than the imported urea price but during the middle of 1990s, the situation reversed and the imported urea prices were soaring to a level of Rs 8,500 per tonne compared to weighted average retention price of Rs 5,584 per tonne 1996-97 as can be seen in the Table-5.

**Table-5: Urea-Retention Price, Farm Gate Price and Subsidy**

	<b>Wt. Avg. R.P. Rs/t</b>	<b>Farmgate price Rs/t</b>	<b>Import price up to farmgate Rs/t</b>	<b>Total Subsidy Rs billion</b>
1978-79	1 496	1 450	2 100	203
1980-81	1 900	2 000	2 500	317
1981-82	2 100	2 350	2 200	178
1984-85	3 800	2 150	2 500	1 400
1987-88	3 717	2 350	3 100	1 426
1991-92	4 332	3 300	4 900	2 806
1992-93	4 929	2 760	4 800	3 364
1994-95	5 297	3 320	6 600	4 415
1996-97	5 584	3 660	8 500	5 706
1997-98	6 826	3 660	7 100	7 567
2001-02	8 700	4 830	7 900	7 430

The Farmgate Prices of urea were however, increased to Rs 4,600/t in 1999-2000 and Rs 4,830/t in 2001-02 compared to retention price of a typical naphtha based plant at Rs 11,500/t and gas based at Rs 6,000/t of urea in 2000-01 leading to a weighted average RP of around Rs 8,700/t. The trend of Retention Prices, Farmgate Prices and Import Prices are given in **Annexure-II**.

The steep rise in naphtha prices for sometime and especially after the dismantling of administered pricing mechanism for petroleum sector, has resulted into substantial increase in urea retention prices based on naphtha feedstock.

**Table-6: Basic Ceiling Prices for Naphtha, Furnace Oil and Natural Gas**  
(excluding royalty, taxes and statutory levies)

<b>Year</b>	<b>Furnace Oil (Rs/KL)</b>	<b>Naphtha (Rs/t)</b>	<b>Natural Gas (HBJ) (Rs/ 000 M3)</b>
1981	1 274	1 723	NA
1991	1 815	2 726	2 400
2000	8 000	13 000	4 000

The increase in Retention Prices of urea at IFFCO, Phulpur plant vis-a-vis naphtha prices during the last two decades are as under :

**Table-7: Retention Prices of urea at IFFCO, Phulpur plant vis-a-vis naphtha prices**

<b>Year</b>	<b>Retention Price (Rs/t)</b>	<b>Naphtha Price (Rs/t)</b>
1980	1 827	1 723
1990	3 819	2 726
2000	11 613	13 000

The trend of Retention Price vis-a-vis Naphtha Price are given in **Annexure-III**.

In addition there were significant increase in the consumption level and volume of production of fertilizers, thereby subsidy bill of the Govt. of India for fertilisers increased from Rs 0.6 billion in 1976-77 to Rs 120 billion in 2001-02.

After the increase in indigenous capacity of the two major urea importing countries i.e. India and China to a level of self sufficiency, the prices of imported urea crashed to a very low level of around US\$ 86 per tonne C&F India, which off late stabilised at around US\$ 120-130 per tonne.

The farmgate urea prices, which were Rs 2,350 per tonne in 1981, increased to Rs 4,830 per tonne in 2001-02 compared to phenomenal increase in paddy and wheat prices and wholesale price index during the same period.

The procurement prices for paddy and wheat were virtually increased 4.6 times during the last two decades compared to about 2 times increase in urea prices as under:

**Table-8: Procurement Price (Rs/Kg)**

Year	Paddy	Wheat
1981	1.15	1.30
1991	2.30	2.25
2001	5.30	6.10

The wholesale price index for all commodities with a base of 100 in 1981-82 increased to 386 in 2001-02, i.e. an increase of four times during the last two decades as given below:

**Table-9: Wholesale Price Indices for All Commodities**  
(Base : 1981-82 = 100)

Year	Index	% Increase
1981	100	Base
1991	183	83
2001	386	111

A comparison of increase in Urea Sale Prices vis-a-vis Wholesale Price Index and Procurement Price for Paddy and Wheat are given in **Annexure-IV**.

With the subsidy bills burgeoning and economic liberalisation and reforms in offing, the Govt. had to take a closer view of the situation and come out with a solution satisfying the fertiliser industry, farmers and the Govt. exchequer as well as the WTO norms, etc.

The cost of production of indigenous fertilisers vis-a-vis the imported one has been varying on unit to unit basis right from the beginning. It was also observed that farmers had lower capacity to pay for fertiliser than market rate. Right from 1957 onwards, selling prices of fertilisers were fixed by the Govt. on the basis of recommendation of the Tariff Commission, the Ministry of Finance and FAI. The pricing policies of the Govt. of India have paid dividend in the form of increase in fertiliser consumptions and the country became self-sufficient in foodgrain production.

Many committees were set up from time to time to review the subsidies on fertilisers and suggest alternative broad based scientific and transparent methodology. However, based on the recommendations of the Expenditure Reform Commission (ERC) for having 5 groups depending on the feed stock and vintage of the plants and Gokak Committee recommendations on energy consumption norms, the GOI has implemented a Group Concession Scheme w.e.f. 1st April 2003. Also the VIIth & VIIIth pricing policies were implemented w.e.f July 1997 and April 2000 respectively.

### **Impact of VII & VIII Pricing Policy on Urea**

VII Pricing was implemented with effect from July 1997 and VIII Pricing was given effect from April 2000. Several policy parameters have been modified adversely in these policies vis-a-vis the VI Pricing policy.

#### **The major items of variation in the VII Pricing policy are as follows:**

1. Vintage allowances in capacity utilisation as well as in norms have been reduced progressively. Thus, the 5% vintage allowance allowed in VI Pricing has been reduced to 4% w.e.f April 1998, 2% w.e.f April 1999 and 0% w.e.f April 2000.
2. The life of catalysts has been increased thereby reducing the allowable catalyst expenditure by about 40%.

#### **The major items of variation in the VIII Pricing policy are as follows:**

1. No vintage allowance to old units from April 2000.
2. Reassessment of capacities, as per the Alagh Committee recommendations has been taken into account while computing the Retention Prices.
3. The normative capacity utilisation has been increased by 5% for all units w.e.f. April 2002.

It may be seen that the Retention Prices have been drastically pruned as part of VII and VIII Pricing. The implementation of the VII and VIII Pricing had a significant negative impact particularly on older units, due to removal of vintage allowance. These units have low contribution margins, owing to the fact that these units are depreciated, and thus have very limited capability to absorb reduction in subsidies.

As a fall out of implementation of VII and VIII pricing policy for urea, there were steep reductions in the retention prices retrospectively leading to pay back of large amounts of subsidies received earlier by the urea manufacturers to the Govt. Many urea units faced severe liquidity problems affecting their operations.

### **New Pricing Policy For Urea**

In January 2003, Govt. of India approved a new pricing policy for urea units, which has come into effect from 1/04/2003. The new policy is aimed at encouraging the Industry to be efficient by using efficient feedstock, latest technology and also to ensure viable rate of return to the units.

The policy broadly consists of the following:

- i) All Urea units have been divided into six groups based on vintage and feedstock viz.
  - pre 1992 gas based units;
  - post 1992 gas based units;
  - pre-1992 naphtha based units;
  - post 1992 naphtha based units;
  - FO/LSHS based units; and
  - mixed energy based units.
- ii) Units to be allowed weighted average group retention price or actual retention price, whichever is lower in stage-I starting from April 2003 to March 2004. Units with retention prices higher than group average by more than 20% shall be treated as outliers and will get an additional concession equal to 50% of the difference between their retention price and the group average price during 2003-04.
- iii) Escalations / de-escalations shall be allowed, in the variable cost related to changes in the price of feed stock, fuel, purchased power and water. In stage-I, escalation/de-escalation shall be allowed based on the VIII<sup>th</sup> pricing consumption norms allowed to each unit. In stage-II, the escalation/de-escalation shall be based on the target energy consumption fixed for each unit.
- iv) In stage-I, the allocation of urea will be restricted to 75% and 50% of the installed capacity of each unit in Kharif 2003 and Rabi 2003-04 respectively. The remaining urea production will be available to the manufacturers for sale to the farmers at MRP anywhere in the country. During Stage-II, Urea distribution will be totally decontrolled after evaluating the stage-I.
- v) The working of all concessions under the Group Concession Scheme shall be done after excluding the impact of Sales Taxes on Inputs. The Sales Tax on Inputs shall be computed and allowed on actual basis to the units.
- vi) After commencement of stage-I, there shall neither be any reimbursement of the investment made by a unit for improvement in operations nor any mopping up of gains of the units as a result of operational efficiency.
- vii) In stage-II, starting from April 2004, there shall be no special treatment for the outliers and all the units will get the group rate of concession as outlined earlier for stage-I. Concession shall be reduced for achieving target energy consumption. In addition, reduction in concession on account of reduction in CRC shall be done for specific units.
- viii) Under the new scheme, there will be no capping on production of urea. The use or sale of by-products such as Ammonia, CO<sub>2</sub>, etc. will be permitted in case considered surplus beyond the reassessed capacity of Urea production or if the FICC inspection team is satisfied about the existence of design surplus or of technical problems.

- ix) Manufacturers shall be allowed to sell Urea with the prior permission of DOF to phosphatic and complex fertiliser manufacturers at import parity prices or export, subject to no receipt of subsidy on this quantity. This quantity shall be counted towards the non-ECA portion of the production. The DOF shall mop-up 50% of the difference between the import parity price and the group concession rate on such deals. If the unit production is in excess of 100% and exports, the recovery shall be 60% of the contribution margin.
- x) The Govt. of India will have the authority to increase the indigenous production of urea up to 115% of the Reassessed Capacity, provided the concession payable on this quantity is financially and economically efficient. Thus, excess production is to be permitted to low cost units. This action means heralding the beginning of merit based pricing scheme with positive impacts.
- xi) The non-ECA portion of Urea, sold for use of fertiliser, will be entitled to only a reduced freight subsidy. The freight subsidy on this quantum shall be Rs. 100 per tonne lower than the amount for the ECA portion.

Major implications of the above recommendations, on the fertiliser industry at this stage, could be identified as under :

1. The proposals, clearly, shall either decrease the subsidy outflow to each unit or retain it at existing levels.
2. The method of allocating the ECA portion of the production is yet to be spelt out. It is expected that this would be in the same ratio as has been adopted hitherto for the complete production. If so, there is likely to be more competition in the vicinity of the units in order to minimise freight costs. Also, in States where despatch outside the state increases the input costs by way of discriminatory sales taxes, the tendency to sell within the state would be very high.
3. Pre-92 Naphtha-based units, whose subsidies will be reduced due to the Group Concession Scheme may also find themselves further disadvantaged by having to sell farther away from the plant. In addition, they shall also have to fund the necessary modernisation expenditure to gear up for Stage-II.
4. Any future capital additions or economy measures can be undertaken purely on the basis of a cost-benefit analysis without reference to the impact that such activities would have on the subsidy allowed to the unit.

A survey by FAI indicates that on implementation of Group Pricing Scheme from 2003-04, out of 32 urea units 23 will stand to loose in terms of subsidy.

Following suggestions may serve to mitigate the adverse impact of the Group Concession Scheme, while retaining a sizeable portion of the advantages:

1. Gas-based units may have to produce surplus ammonia, even when the urea production is lesser than 100% of reassessed capacity particularly if they do not have a Naphtha Pre-reformer. Thus, byproduct sales may be freed of all restrictions even if urea capacity utilisation is less than 100% of reassessed capacity. Since the full costs of any unit is no longer being taken into account on a unit-specific basis, hence any recovery of profits on surplus ammonia sale may not be prudent.

2. Simultaneous import and export may be permitted, wherever it is economically feasible.
3. Make gas available to fertiliser units, including the Naphtha and FO-based units, on priority basis, both from existing reserves as well as the new reserves that may become available.
4. Provide for a mechanism for paying out an interest-free subsidy advance, recoverable from the future subsidy bills in installments, to the high-cost units to fund their modernisation activities.
5. Many States levy Turnover Tax and State Surcharge also. During the movement of fertilisers from one State to other, there is multiplicity of taxes. A closer look by the Govt. Of India is required to rationalise the tax structure and make it uniform, throughout the country.

### **Compatibility with WTO norms**

Urea is an unbound item under WTO and rate of custom duty on imported urea will decide the viability of indigenous urea. The Government has removed Quantitative Restrictions (QR) on import of urea w.e.f. April, 2001. However, the custom duty, at present 5%, can be increased by the Government at any time under the WTO norms.

The WTO Task Force on fertilisers, constituted by Govt. of India, to examine the implications of the WTO compatible Quantitative Restrictions (QR) free regime has submitted its report in February, 2001. In order to make the fertiliser policy WTO compatible, the Govt. has allowed import of urea only through designated State Trading Enterprises. The Indian fertiliser industry has to formulate its strategies compatible to WTO regime.

### **Implications of Feedstock and Energy**

Main feedstocks used for manufacture of urea are natural gas (60%), naphtha (30%) and furnace oil (10%). Because of shortage of gas supplies to gas-based urea plants, many units have gone for mixed feed options where naphtha is used along with gas through Pre-Reformer system. Kalol, Aonla-II and Vijaypur-II plants are examples of this system. Naphtha being the costliest fuel, its use is not being encouraged in the long term fertiliser policy.

Naphtha prices presently being charged are on import-parity basis. This allows the oil companies to add hefty opportunity cost to the international naphtha prices on FOB basis and increase the burden of urea manufacturers. Since the infrastructure for naphtha imports are available with only few oil companies, the urea companies are taken for a ride by the oil companies in a monopolistic way. The naphtha pricing should be otherwise on export-parity basis. Similarly, linking of gas pricing with fuel oil price is not found rationale when compared to international gas prices. Also FO based urea plants were set up in those days to take care of huge stocks of FO at the refineries rather than on economic approach. So evaluating them today on economic basis is not justified.

There is emphasis on shift to cheaper options like liquefied natural gas (LNG). The natural gas resources in India are limited. However, allowing private parties in the exploration of natural gas has paid the dividends and Reliance in partnership with Canadian firm Niko Resources has discovered significant gas reserves in Krishna-Godavari Basin, estimated at 7 trillion cubic feet and projected price of around US\$ 3 per MMBtu.

This is going to encourage setting up of new urea plants based on indigenous Natural Gas. The LNG projects that have been projecting a price of US\$ 4.0 to 5.0/MMBtu have to re-think for their use in fertiliser industry.

In the recent past, there was emphasis on setting up urea plants in Middle East countries, where gas is available at very cheap rates. For example, the Joint Venture Urea Project of IFFCO-KRIBHCO in Oman has a long term Agreement with Oman Oil Company for supply of Natural Gas at US\$ 0.77/MMBtu delivered at Plant. However, now the trend will shift to having plants in India as cheaper resources and economic benefits will offset the advantage of cheaper gas price in Middle East countries.

A grassroots fertiliser project in India having 1750 t/d and 3000 t/d capacity of ammonia and urea plants respectively is expected to cost Rs 19 billion. This can compete with imported urea price of US\$ 110/t C&F without any custom duty provided natural gas price at coastal location is US\$ 2.5/MMBtu and for inland location it could be US\$ 3/MMBtu inclusive of transportation cost. A comparison of cost of production (COP) of urea at coastal locations and inland locations at different energy prices vis-a-vis import prices are given in **Annexure-V and VI** respectively.

It is now imperative to have an Energy Pricing Regulator in place to look into all these aspects and have rationale pricing policy in place. A Committee of Secretaries under the chairmanship of the Secretary, Ministry of Petroleum & Natural Gas is examining the issues related to the pricing of petroleum products viz. natural gas and LNG for fertiliser use.

In the event, naphtha, LSHS and fuel oil are replaced in the existing IFFCO plants with natural gas having a price of US\$ 3/MMBtu, then it is expected that total reduction in the operating cost will be to the tune of Rs. 8.5 billion per annum.

In view of above, following measures are recommended for feed stock prices vis-a-vis import of urea:

- a. The maximum delivered cost of feed stock should be limited to US\$ 3/MMBtu for all urea plants.
- b. The custom duty to be linked with prevalent C&F price of imported urea.
- c. In case custom duty is to be kept lower than price of feedstock should be linked to imported urea prices.
- d. Energy Pricing Regulator to be in place.
- e. These measures are essential for level playing field for indigenous urea vis-a-vis imported urea.

### **Pricing of Phosphatic Fertilisers**

In February 1979, the Government introduced formal control on the selling price of phosphatic fertilisers and brought them under RPS cover. The Fertiliser subsidy under the RPS increased from Rs. 5.05 billion in 1980-81 to about Rs. 44 billion in 1990-91. This was primarily on account of increase in production and consumption of fertilisers, steep increases in prices of inputs and practically no increase in the selling price of fertilisers to the farmers during the decade of 80s.

In a major policy decision, aimed at reducing the quantum of fertiliser subsidy, the Government raised the controlled selling prices of urea and DAP fertilisers by 40% in July 1991, which was rolled back to 30% due strong opposition.

Based on the recommendations of the Joint Parliamentary Committee on Fertiliser Pricing (JPC), the phosphatic and potassic fertilisers were decontrolled with effect from 25th August 1992. Simultaneously, the price of urea was reduced by 10%. As a result, the consumption of both phosphatic and potassic fertilisers declined suddenly after the decontrol. An ad-hoc subsidy of Rs 1000 per tonne on sale of DAP and MOP was introduced w.e.f. 1st October 1992 covering sales of both imported and indigenously produced material. From 4th May 1993, the ad-hoc concession restricted to indigenously produced NPK/DAP fertilisers. During 1993-94 even the subsidised selling price of DAP after ad-hoc concession was Rs 6,400-6,600 per tonne against the pre 25th August 1992 controlled selling price of Rs 4,680 per tonne. Because of huge disparity in prices of urea and Phosphatic fertilisers, the nutrient consumption ratio of N, P and K got seriously distorted. Due to unbalanced use of fertilisers, the nutrient balance of soil may be disturbed which may even be irreversible as the soils have only a limited recharging capacity.

In July 1996 Concession on phosphatic and potassic fertilisers raised to Rs 3,000/t for indigenous DAP and Rs 1,500/t for imported DAP and MOP. Because of this, the consumption of phosphatic fertilizers started picking up from 1996. The concession kept on varying from time to time. In May 1999 the concession on Indigenous/ Imported DAP was Rs 4,600/t and Rs 3,200/t respectively and Rs 3,250/t on Imported MOP.

There is some controversy on different amount of concession on indigenous fertilisers vis-a-vis imported DAP fertilisers which is being looked into by the Govt. of India.

### **Salient features of Tariff Commission Report on Pricing Policy of Phosphatic Fertilisers**

To study the cost-price of DAP and MOP, the Govt. of India referred it to Tariff Commission (TC), which submitted its report in January 2003. TC covered the 11 manufacturers of DAP and 15 importers of DAP and MOP under their study. All the units were divided in two Groups i.e. units using captive phosphoric acid (Group-I) and units based on imported phosphoric acid (Group-II). TC recommended the group weighted average price Rs 10,163/t P<sub>2</sub>O<sub>5</sub> for Group-I based on imported rock phosphate price of US\$ 32.41/t and sulphur price of US\$ 34.28/t and Rs 11,128/t P<sub>2</sub>O<sub>5</sub> for Group-II based on phosphoric acid price of US\$ 312.6/t and Ammonia price at US\$ 118.23/t. The prices are to be adjusted based on a formula comprising the variation in prices of imported ammonia, imported phosphoric acid, imported raw phosphate, exchange rate and custom duty.

The complex fertilizers manufacturing units have been divided in two Groups. Group-I comprises units having gas-based captive ammonia plant or based on imported ammonia and Group-II comprises units having naphtha-based Ammonia Plant.

### **Growth of Urea and Phosphatic Fertiliser Industry**

In view of the recent pricing policies of the Govt. of India, the urea industry has to consolidate its operations to compete in the decontrolled scenario. The options left before the high cost units would be to reduce the cost of production by reducing energy consumption, optimise use of resources, pooling of catalysts and spares, etc. This will also necessitate major revamps for energy efficient routes and change over to cheaper energy sources.

Urea plants have to select the retrofitting schemes to suit their respective technologies and plant and based on cost-benefit analysis under present scenario.

Naphtha / FO, being a high cost energy to urea plants, their conversion to gas-based plants should be expedited. With the current discoveries of gas reserves, the option of LNG versus indigenous natural gas needs to be examined in terms of its economics.

Since the potential for increase in consumption of fertilisers in Indian agriculture is there, the Indian fertiliser industry should gear up to expand the production at competitive prices.

The industry has to meet the challenges in a positive frame of mind. Although some of the very tough measures taken by the Government may be little too harsh for the industry but I believe that a constructive dialogue with the Government could find a viable solution. Some of the suggestions in this regard are enumerated below:

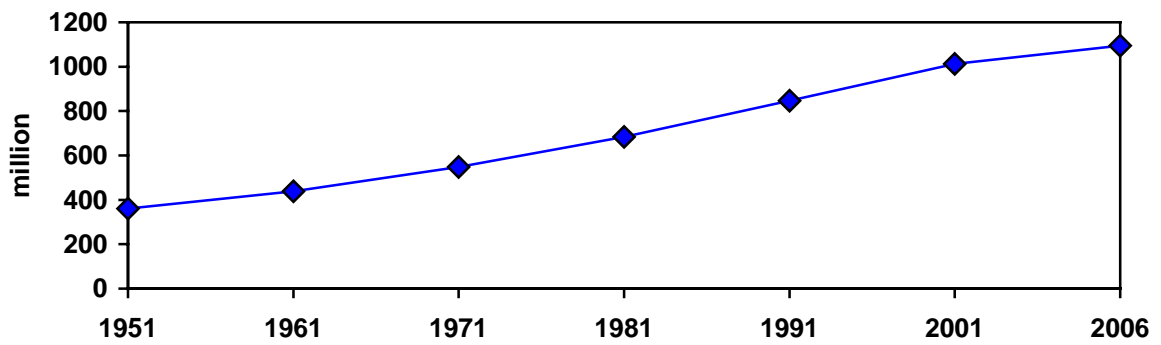
- 1) Existing fertiliser plants to revamp for energy efficiency.
- 2) Costly feedstock such as naphtha, FO, etc. to change over to natural gas or LNG depending upon its availability and prices.
- 3) The Govt. of India should declare the long-term fertiliser policy for at least 15 years for stabilising the growth of fertiliser industry.
- 4) The Govt. of India should also have a long term energy pricing vis-a-vis fertiliser pricing policy including logistics for supply of feedstocks and sale of fertilisers.
- 5) The Govt. of India should expand FCO specifications for various fertilisers to include micro-nutrients.
- 6) The Pricing Policy should have compensation for value additions to fertilisers.
- 7) Levying of multiple and differential taxes by different States on the movement and sale of feedstocks and fertilisers need to be rationalised by the Govt. of India.
- 8) Interest of small and marginal farmers must be kept in mind while deciding fertiliser pricing policy.
- 9) The fertilisers pricing policy and related issues should be WTO compatible for making indigenous industry competitive.
- 10) The Govt. of India should encourage the social role of indigenous fertiliser manufacturers.
- 11) For steam/power generation, use of cheaper fuel like coal should be encouraged to reduce the energy cost.

## **Conclusion**

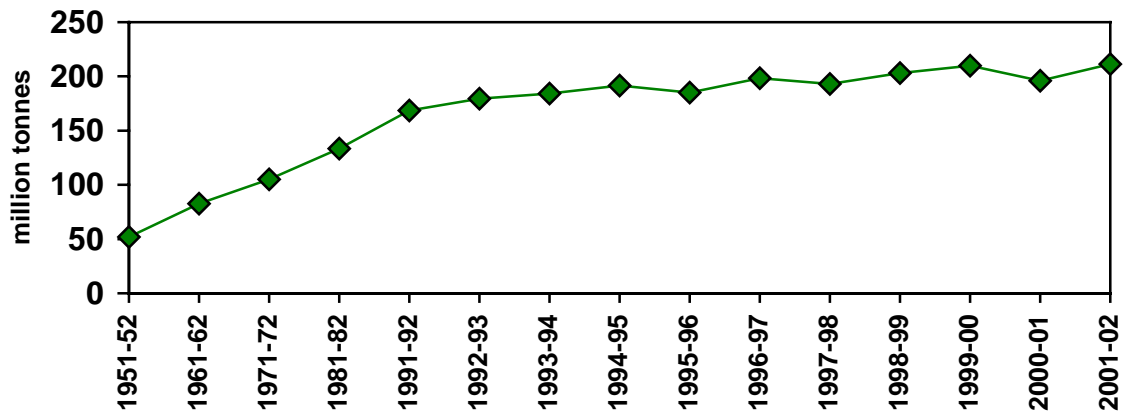
Fertiliser industry is a very important industry for food security and national pride to India. It needs to be understood that Government and industry should remain partners in national pride. Both have to understand each other's limitations to come to a viable solution. This solution should be farmer friendly and economically viable. This is possible by efficient, modern and vibrant fertiliser industry. Government should also ensure that fertiliser industry gets its raw materials at reasonable price and of proper quality.

Good luck to all.

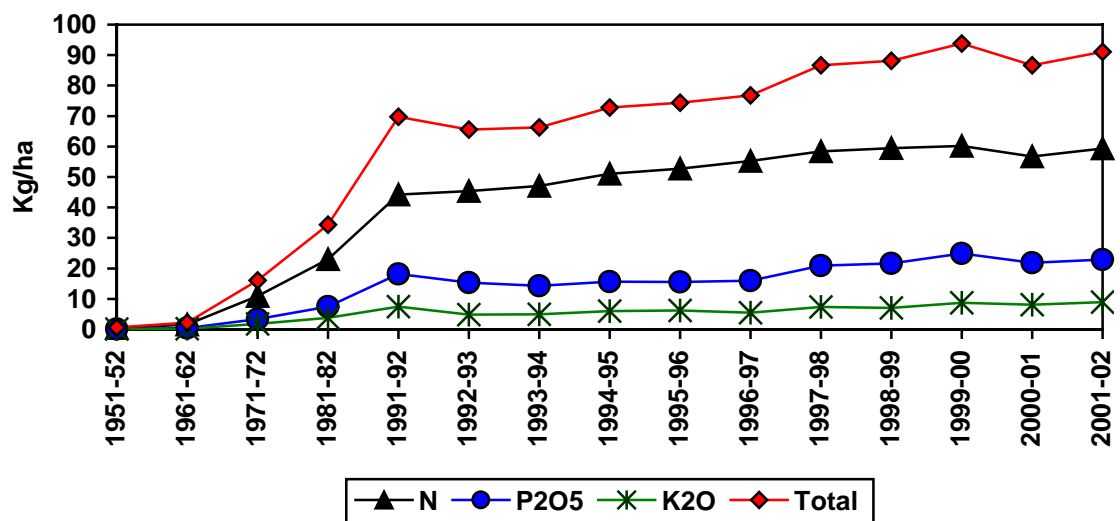
**Fig 1.1: Population of India (million)**



**Fig 1.2: Foodgrain Production in India**

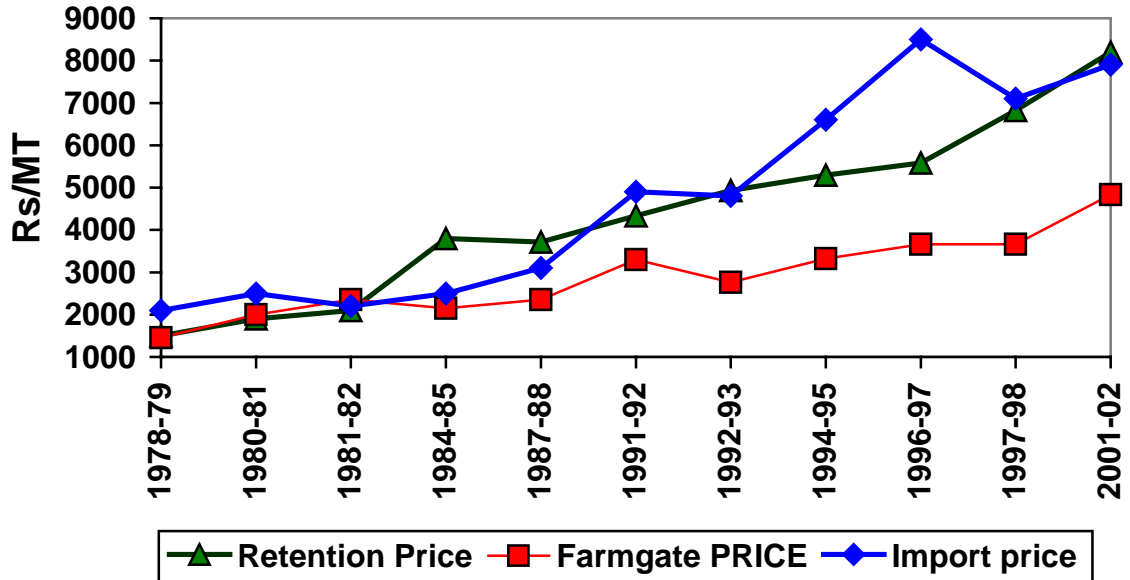


**Fig 1.3: Nutrient Consumption in India**



Annexure – II

**Fig 2: Retention Price vs Farmgate Price and Import Price**



Annexure – III

**Fig 3: Retention Price vs Naphtha Price of Phulpur Unit**

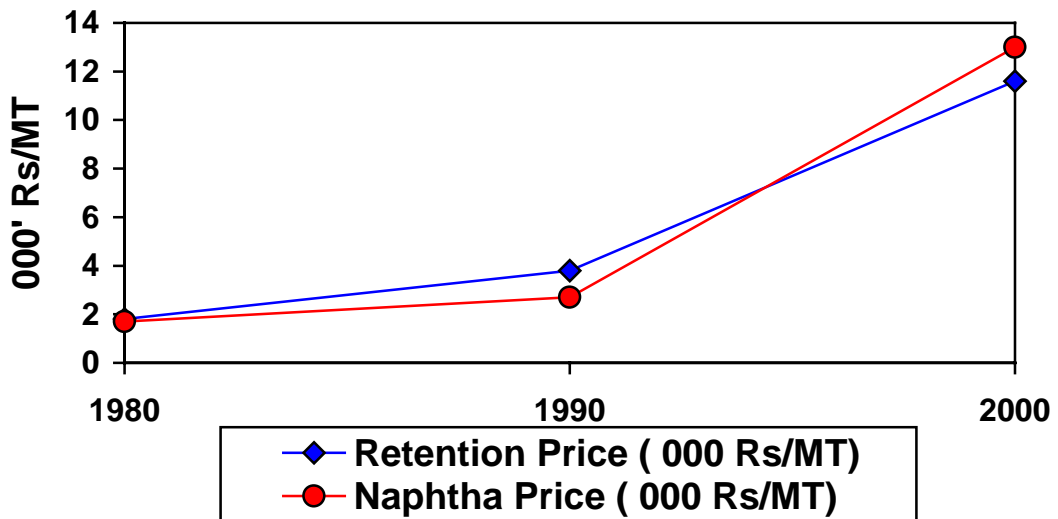


Fig 4: Farm Gate Price vs Wholesale Price Indices and Procurement price

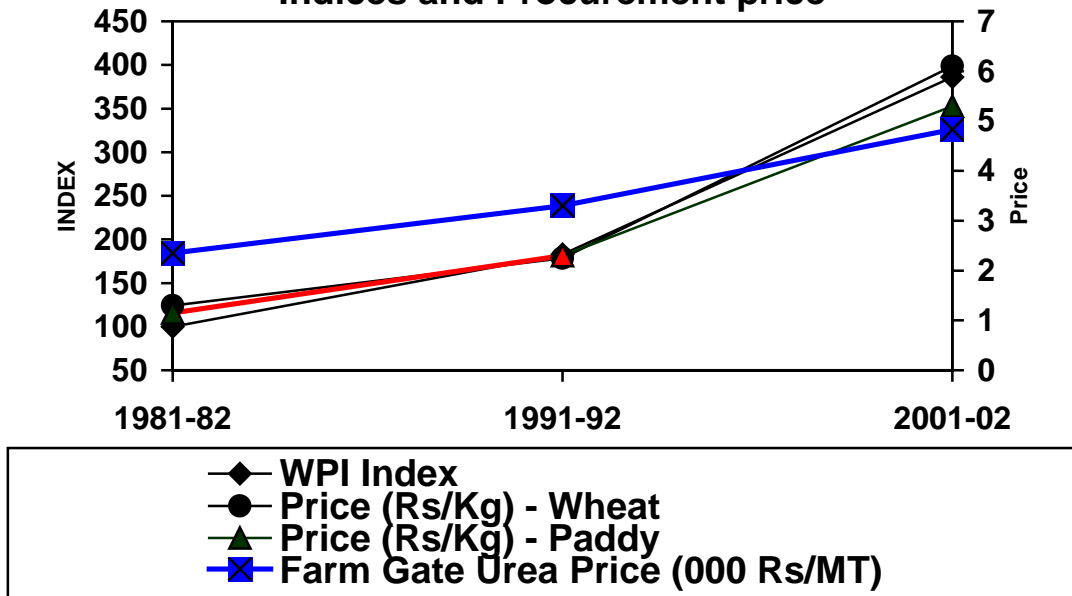


Fig 5: Comparison of COP of Urea - Coastal Location

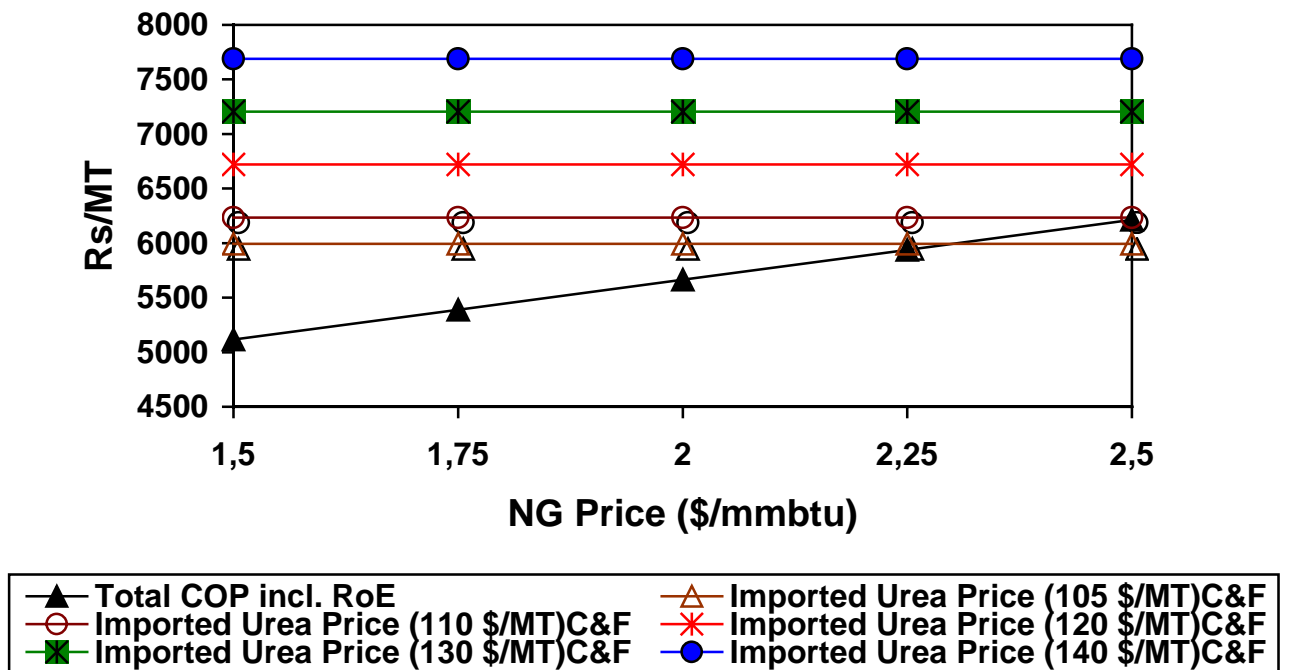


Fig 6: Comparison of COP of Urea - Inland Location

