Indian fertilizer industry essay

ANNUAL REPORT 2010-2011 GOVERNMENT OF INDIA MINISTRY OF CHEMICALS & FERTILIZERS DEPARTMENT OF FERTILIZERS ANNUAL REPORT 2010-2011 GOVERNMENT OF INDIA MINISTRY OF CHEMICALS & FERTILIZERS DEPARTMENT OF FERTILIZERS 1 2 CONTENTS S. No. Subjects 1. 2. 3. 4. 5. 6. 7. 8. 9. 10. 11. 12. 13. 14. 15. 16.

Introduction Organizational Set up and Functions Development & Growth of Fertilizer Industry Availability of Major Fertilizers during 2010-11 Plan Performance Measures of Support for Fertilizers Public Sector Undertakings and Cooperative Society Fertilizer Education Projects Information Technology (IT) Vigilance Activities Right to Information Act, 2005 Progressive Use of Official Language (Hindi) Welfare of SCs, STs, OBCs and Physically Handicapped Persons Women Empowerment Citizen Charter/Grievance Redress Mechanism Annexure I to XVI Page No. 5-11 12-13 14-21 22-23 24-25 26-41 42-71 72-73 74-76 77 78 79-80 81-82 83-84 85 86-108 Dr. Chandra Pal Singh, Vice-Chairman and Shri B. D. Sinha, Managing Director, KRIBHCO handing over the Dividend Cheque of Rs. 37. 78 crore to Shri M. K. Alagiri, Hon’ble Union Minister for Chemicals & Fertilizers in the presence of Shri Srikant Jena, Hon’ble State Minister for Chemicals & Fertilizers, Shri S. Krishnan, Secretary (Fertilizers), Shri Deepak Singhal, Joint Secretary (F&P), Shri S. L. Goel, Joint Secretary (P&P), Shri Satish Chandra, Joint Secretary (A&M) along with Shri N. Sambasiva Rao, Marketing Director of KRIBHCO and other officers of Ministry of Chemicals & Fertilizers, GOI. Chapter-1 1. 1 1. 1. 1 Introduction Agriculture which accounts for one fifth of GDP, provides sustenance to two-thirds of our population. Besides, it provides crucial backward and forward linkages to the rest of the economy. Successive five-

year plan have laid stress on self-sufficiency and self-reliance in food grains production and concerted efforts in this direction have resulted in substantial increase in agriculture production and productivity. This is clear from the fact that from a very modest level of 52 million MT in 1951-52, food grain production rose to about 218. 0 million MT in 2009-10. In India’s success in agriculture sector, not only in terms of meeting total requirement of food grains but also generating exportable surpluses the significant role played by chemical fertilizers is well recognized and established. Keeping in view the vital role played by chemical fertilizers in the success of India’s green revolution and consequent self-reliance in food-grain production, the Government of India has been consistently pursuing policies conducive to increased availability and consumption of fertilizers in the country.

As a result, the annual consumption of fertilizers in nutrient terms (N, P & K), has increased from 0. 7 lakh MT in 1951-52 to 264. 86 lakh MT 2009-10, while per hectare consumption of fertilizers, which was less than 1 Kg in 1951-52 has risen to the level of 135. 27 Kg (estimated) in 2009-10. As of now, the country has achieved near self-sufficiency in production capacity of urea with the result that India could substantially manage its requirement of nitrogenous fertilizers through the indigenous industry.

Similarly, adequate indigenous capacity has been developed in respect of phosphatic fertilizers to meet domestic requirements. However the raw materials and intermediates for the same are largely imported. As for potash (K) since there are no viable sources/ reserves in the country, its entire requirement is met through imports. 1. 2 1. 2. 1 Growth of Fertilizer Industry The industry made a very humble beginning in 1906, when the first

manufacturing unit of Single Super Phosphate (SSP) was set up in Ranipet near Chennai with an annual capacity of 6000 MT.

The Fertilizer & Chemicals Travancore of India Ltd. (FACT) at Cochin in Kerala and the Fertilizers Corporation of India (FCI) in Sindri in Bihar (now Jharkhand) were the first large sized fertilizer plants set up in the forties and fifties with a view to establish an industrial base to achieve self-sufficiency in food-grains. Subsequently, green revolution in the late sixties gave an impetus to the growth of fertilizer industry in India and the seventies and eighties then witnessed a significant addition to the fertilizer production capacity. The installed capacity as on 31. 03. 009 has reached a level of 120. 61 lakh MT of nitrogen and 56. 59 lakh MT of phosphatic nutrient, making India the 3rd largest fertilizer producer in the world. The rapid build-up of fertilizer production capacity in the country has been achieved as a result of a favourable policy environment facilitating large investments in the public, co-operative and private sectors. Presently, there are 56 large size fertilizer plants in the country manufacturing a wide range of nitrogenous, phosphatic and complex fertilizers. Out of these, 30 (as on date 29 are functioning) units produce urea, . 1. 2 1. 2. 2 1. 1. 3 5 21 units produce DAP and complex fertilizers, 5 units produce low analysis straight nitrogenous fertilizers and the remaining 9 manufacture ammonium sulphate as byproduct. Besides, there are about 85 medium and small-scale units in operation producing SSP. The sector-wise installed capacity is given in the table below: SECTOR-WISE, NUTRIENT-WISE INSTALLED CAPACITY OF FERTILIZER MANUFACTURING UNITS AS ON 31. 03. 2010. Sr. No. Sector Capacity (lakh MT) N 1 2 3 Public Sector Cooperative Sector Private Sector Total: 34. 98 31. 69 53. 94 120. 1 P

4. 33 17. 13 35. 13 56. 59 Percentage Share N 29. 0 26. 27 44. 73 100. 00 P 7. 65 30. 27 62. 08 100. 00 1985. As the usage of gas increased and its available supply dwindled, a number of expansion projects came up in the last few years with duel feed facility using both naphtha and gas. Feasibility of making available Liquefied Natural Gas (LNG) to meet the demand of existing fertilizer plant and/or for their expansion projects along with the possibility for utilising newly discovered gas reserves, is also being explored by various fertilizer companies in India. . 3. 2 In case of phosphates, the paucity of domestic raw material has been a constraint in the attainment of self-sufficiency in the country. Indigenous rock phosphate supplies meet only 5-10% of the total requirement of P2O5. A policy has therefore been adopted which involves mix of three options, viz, domestic production based on indigenous/ imported rock phosphate, imported sulphur and ammonia; domestic production based on indigenous / imported intermediates, viz. ammonia and phosphoric acid; and third, import of finished fertilizers.

During 2009-10 roughly 72% of the requirement of phosphatic fertilizers was met through the first two options. In the absence of commercially exploitable potash sources in the country, the entire demand of potassic fertilizers for direct application as well as for production of complex fertilizers is met through imports. Given the volatility in international market for fertilizer in general and urea market in particular, marginal provision through imports could be used to the country’s strategic advantage.

This is also desirable as the international market, especially in case of urea, is very sensitive to demand supply scenario. Under the new pricing regime for urea units applicable from 01. 04. 2003, for securing additional

indigenous supply of urea, economically efficient units are being permitted to produce beyond their reassessed capacity to substitute/ minimize imports. 1. 3 1. 3. 1 Self-sufficiency in Fertilizer Sector Out of three main nutrients namely nitrogen, phosphate and potash, (N, P&K) required for various crops, indigenous raw materials are available mainly for nitrogenous fertilizers.

The Government’s policy has hence aimed at achieving the maximum possible degree of self-sufficiency in the production of nitrogenous fertilizers based on utilisation of indigenous feedstock. Prior to 1980, nitrogenous fertilizer plants were mainly based on naphtha as feedstock. A number of fuel oil/LSHS based ammonia-urea plants were also set up during 1978 to 1982. In 1980, two coal-based plants were set up for the first time in the country at Talcher, (Orissa) and Ramagundam, (Andhra Pradesh). These coal based plants have, however, been closed by Government w. . f. 1. 4. 2002 due to technical and financial nonviability. However, with natural gas becoming available from offshore Bombay High and South Basin, a number of gas based ammonia-urea plants have been set up since 1. 3. 3 1. 3. 4 6 Dividend cheque given to Secretary (F) by MD, FAGMIL 1. 4 1. 4. 1 Fertilizer Subsidy The subsidy on fertilizers is passed on to the farmers in the form of subsidized MRPs. The selling prices as notified by Government for the subsidized fertilizers are much lower than the normative delivered cost of these fertilizers at farm gate level.

The difference between the normative delivered cost at farm gate level and the notified selling prices is paid as subsidy to manufacturers/importers on sale of fertilizers to the farmers at the subsidized prices. 1. 4. 2 The increase in rate of subsidy on fertilizers combined with increase in consumption of

fertilizers has led to a substantial increase in requirement of subsidy. In spite of increase in cost of fertilizers, the Government has completely kept the farmers insulated from this increase in cost and have ncreased the subsidy allocations to meet the consumption needs of the farmer at subsidized level of prices. The subsidy on fertilizers has been increased sharply over the last few years. The details of fertilizer subsidy over the last few years are as below:- 7 DETAILS OF EXPENDITURE ON SUBSIDY/CONCESSION (Rs in crores) Period Amount of concession disbursed on Decontrolled Fertilizers (Indigenous+ imported) Indigenous P&K 2006-07 2007-08 2008-09 2009-10 2010-11 (BE) 6648. 17 10333. 80 32957. 10 16000. 00 13000. 00 Imported P&K 3649. 95 6600. 00 32597. 69 23452. 06 15500. 00 Total (P&K) 10298. 2 16933. 80 65554. 79 39452. 06 28500. 00 Amount of Subsidy disbursed on Urea Indigenous Urea 12650. 37 16450. 37 17968. 74 17580. 25 15980. 73 Imported Urea 5071. 06 9934. 99 12971. 18 6999. 98 8360. 00 Total (Urea) 17721. 43 26385. 36 33939. 92 24580. 23 24340. 73 28019. 55 43319. 16 99494. 71 64032. 29 52840. 73 Total for all fertilizers 1. 4. 3 The steady increase in fertilizer subsidies over the years has largely been the result of increasing production / consumption and increases in the costs of inputs of indigenous fertilizers and prices of imported fertilizers from time to time.

The cost of various inputs / utilities, such as coal, gas, naphtha, rock phosphate, sulphur, ammonia, phosphoric acid, electricity, etc. , as also the cost of transportation, went up significantly during the eighties. The gas-based fertilizer units commissioned during this period also involved higher capital investment per tonne of installed capacity, necessitating constant upward revision in the retention prices. The selling prices of fertilizers to the

farmers, however, remained almost at the same level between July, 1981 and July 1991.

The Government effected an increase of 30% in the issue prices of fertilizers in August, 1991 after a gap of a decade. The selling price of urea, which was reduced by 10% in August 1992, was revised upwards by 20% in June 1994 followed by another increase by 10% with effect from 21. 2. 97. The prices of urea were again revised in February 2002 by 5% and by Rs. 240 PMT of urea w. e. f. 28. 2. 2003. The price increase made effective from 28. 2. 2003 was, however, later withdrawn w. e. f 12. 3. 2003. The MRP of urea i. e. @ Rs. 4830 per tonne exclusive of local levies continued upto 31-03-2010.

With effect from 1-04-2010, MRP or urea increased by 10% i. e. from Rs. 4830 per MT to Rs. 5310 per MT. 1. 5 1. 5. 1 Fertilizer Pricing Policy Given the importance of fertilizer pricing and subsidization in the overall policy environment, which has direct implications with reference to the growth and development of agriculture and sustainability of the fertilizer industry, the need for streamlining the subsidy scheme in respect of urea producing units had been felt for a long time. A High Powered Fertilizer Pricing Policy Review Committee (HPC) was constituted, under the chairmanship of Prof. C. H.

Hanumantha Rao, to review the existing system of subsidization of urea, suggest an alternative broad-based, scientific and transparent methodology, and recommend measures for greater cohesiveness in the policies applicable to different segments of the industry. The HPC, in its report submitted to the Government on 3rd April 1998, inter-alia, recommended that 8 unit-wise RPS for urea may be discontinued and, instead, a uniform Normative Referral

Price be fixed for existing gas based urea units and also for DAP and a Feedstock Differential Cost Reimbursement (FDCR) be given for a period of five years for non-gas based urea units. . 5. 2 The Expenditure Reforms Commission (ERC), headed by Shri K. P. Geethakrishnan, had also examined the issue of rationalizing fertilizer subsidies. In its report submitted on 20 th September 2000, the ERC recommended, inter-alia, dismantling of existing RPS and in its place the introduction of a Concession Scheme for urea units based on feedstock used and the vintage of plants. The recommendations of ERC were examined in consultation with the concerned Ministries/Departments.

The views of the fertilizer industry and the State Governments/ Union territories, and economists/research institutes were also obtained. After due examination of all these views, a New Pricing Scheme (NPS) for urea units for replacing the RPS was formulated and notified on 30. 1. 2003. The new scheme took effect from 1. 4. 2003. It aims at inducing the urea units to achieve internationally competitive levels of efficiency, besides bringing in greater transparency and simplification in subsidy administration. New Pricing Scheme (NPS) was introduced w. e. f. 1st April, 2003.

The Stage-I of NPS was of one year duration from 1st April, 2003 to 31st March 2004 and State-II was of two year duration from 1st April 2004 to 31st March, 2006. With the State-III of NPS being implemented w. e. f. 1st October 2006, the Stage-II of NPS stands extended upto 31st September, 2006. Under NPS, the existing urea units have been divided into six groups based on vintage and feedstock for determining the group based concession. These groups are : Pre-1992 gas based units, post-1992 gas based units, pre-1992

naphtha based units, post-1992 naphtha based units, fuel oil/low sulphur eavy stock (FO/LSHS) based units and mixed energy based units. The mixed energy based group shall include such gas based units that use alternative feedstock/fuel to the extent of more than 25% as admissible on 1. 4. 2002. 1. 5. 6 Under NPS, escalation/de-escalation is given in respect of variable cost related to changes in the price of feedstock, fuel, purchased power and water. Under the scheme, no reimbursement is allowed in respect of investment made by a unit for improvement in its operations nor are the gains as a result of operational efficiencies to be mopped up.

It has also been provided under the scheme that the concession rates during State-II shall be adjusted for reduction in capital related charges and enforcement of efficient energy norms. Pre-set energy norms for urea units during State-II of NPS have already been notified and intimated to urea units. Reduction in rates of concession during Stage-II of NPS for urea units on account of reduction in capital related charges have also been notified and intimated to urea units. Amendments to New Pricing Scheme Stage – III for Urea Units. 1. 5. 7 1. 5. 3 1. 6 Following amendments in NPS III have been made 1. . 1 It has been decided that the reduction in the fixed cost of each Urea units strictly due to Group Averaging principle under the New Pricing Scheme III will be restricted to 10% of the Normated Fixed Cost computed under the base concession rates. The limitation on reduction of fixed cost will be applicable w. e. f 1st April, 2009. Capacity utilization of Post – 1992 Naptha based Group Average will be considered as 95% instead of 98% for calculating the base concession rates of urea units provided no cost towards conversion is recognized under NPS III.

The approved amendments will help the indigenous urea units reduce their losses due to the group averaging under New Pricing Scheme Stage – III and help them to 1. 5. 4 1. 6. 2 1. 5. 5 9 generate resources for reinvestment in their plants towards modernization and increased efficiency. 1. 6. 3 To maintain stocks of urea in case there is either a shortfall in production due to disruption in supplies of feedstocks or delay/ disruption in imports and to tide over the sudden spurt in demand/shortages, a bufferstocking scheme for urea is under implementation in major States.

The companies are reimbursed buffer stocking expenses on following parameters. (i) The company operating the buffer stock will be entitled to Inventory Carrying Cost (ICC) at a rate 1 percentage point less than the PLR of SBI as notified from time to time. This rate would be applicable at Rs 4650 per MT (MRP less than the dealer’s margin i. e. Rs 4830- Rs 180) for the quantity and the duration for which the stock is carried as buffer. In case of cooperatives, it will be at Rs 4630 per MT as dealers margin in this case is Rs 200 per MT. (ii) The company will be paid warehousing and insurance charges at the rate of Rs 23 per tonne per month n the quantity carried as buffer. (iii) Since the material will be moved in two stages i. e. from the plant to the buffer stocking point and then on to consumption points, additional handling charges at the rate of Rs 30 per MT will be paid to the Fertilizer Company on the quantity sold from the buffer stock. (iv) In addition, freight from the buffer stocking warehouse to the block in case of movement outside the district in which buffer stocking godown is located, will also be paid to the company, in accordance with the provisions under the Uniform policy for freight subsidy announced by the Government with effect from 1st

April, 2008 1. MRP of Decontrolled P & K Fertilizers The MRP of the DAP/NPK/MOP has been constant from February 2003 to 17. 6. 2008. Then Department of Fertilizers introduced nutrient based subsidy in June 2008 and accordingly, revised the MRP of NPK Complex Fertilizers downwards w. e. f. 18. 6. 2008. However, the MRP of the other fertilizers remained the same. The MRP of fertilizers is shown in the table below: MAXIMUM RETAIL PRICE OF FERTILIZERS (Rupees per MT) Product From 12. 3. 2003 to 17. 6. 2008 4830 9350 4455 9350 From 18. 06. 08 Urea Di Ammonium Phosphate (DAP) Muriate of Potash (MOP) Mono-Ammonium Phosphate (MAP) (w. . f. 1. 4. 2007) Triple Super Phosphate (TSP) (w. e. f. 1. 4. 2008) Single Super Phosphate (SSP) (w. e. f. 1. 5. 2008 to 30. 6. 2009) all India MRP Ammonium Sulphate (AS) (w. e. f. 1. 7. 2008) Grades of Complex Fertilizers – N: P: K: S 16: 20: 00: 13 (earlier 16: 20: 00) 20: 20: 00: 00 20: 20: 00: 13 23: 23: 00: 00 28: 28: 00: 00 10: 26: 26: 00 12: 32: 16: 00 14: 28: 14: 00 14: 35: 14: 00 15: 15: 15: 00 17: 17: 17: 00 19: 19: 19: 00 4830 9350 4455 9350 7460 3400 7460 3400 10350 7100 7280 7280 8000 9080 8360 8480 8300 8660 6980 8100 8300 5875 5343 6295 6145 7481 7197 7637 7050 8185 5121 5804 6487 0 1. 8 Global Scenario Prices of Major fertilizers, such as Urea, DAP and MOP and fertilizer inputs such as Ammonia, Sulphur, Rock Phosphate and Phosphoric acid increased manifold during 2008-09. This resulted in steep increase in prices of both finished fertilizers as well as intermediates and consequently led to substantial increase in subsidy outgo of the Government. Urea Price, which was US$ 280. 75 fob per MT in January 2007 increased to US$ 403. 75 fob per MT in January 2008 and US $ 815 fob per MT in August 2008. Price of DAP, which was US $ 320. cfr per MT in January 2007 increased to US$ 802 cfr per MT in January 2008 and US $ 1331 cfr pt in May

2008. MOP price, which prevailed at US $ 170 fob per MT in January 2007 went up to US $ 328 fob per MT in January 2008 and US$ 945 fob per MT in October 2008. Raw material prices also showed exponential jumps during the last one year. Ammonia price, which, on an average, was $ 301. 5 cfr (India) per in January 2007, went upto US $ 389 cfr (India) per MT in January 2008 and US $ 834 cfr (India) in September 2008. Price of Phosphoric Acid witnessed a sharp increase during the year.

Price of Phosphoric acid which was US $ 566. 25 cft pt (annual contract price) for 2007-2008, went up to 1985 cfr pt in April-June 2008 and to US $ 2310 cft pt in July-September 2008. Sulphur price increased from US $ 78. 75 cfr per MT in January 2007 to US $ 561 cfr per MT in January 2008 and to US $ 846 cfr pt in July 2008. Price of Rock Phosphate which was US $ 79. 5 cfr pt in January 2007 went up to US $ 245 cfr pt in January 2008 and to US $ 460 cfr pt in June 2008. The spurt in international prices have impacted prices of imported finished fertilizers as well as raw material in India.

As a result, subsidy outgo for 2008-09 was about one lakh crore From July 2008 to January 2010, the prices of the raw materials/intermediates/finished fertilizers have shown a declining trend. The prices in January 2010 in comparison to that of and July 2008 and March 2009 are as follows : (US$ pmt) Raw material/intermediate/Fertilizers DAP MOP Urea FOB Phos Acid, India (C&F) Ammonia (C&F) Sulphur (C&F) Rock (C&F) Sulphuric Acid (C&F) Brazil July 2008 1291. 90 725. 00 783. 00 2200-2310 571. 10 846. 00 384. 00 360. 00 March 2009 414. 00 767. 50 305. 63 650. 760 261. 00 57. 00 301. 00 (in Jan, 09) 0. 00-50. 0 January 2010 499. 3 381. 25 306. 88 610-627. 50 327. 88 139. 50 142. 50 35. 38 11 Chapter-2 2. 1 2. 1. 1 Organizational

set up and functions The main activities of Department of Fertilizers (DOF) include planning, promotion and development of the Fertilizer Industry, planning and monitoring of production, import and distribution of fertilizers and management of financial assistance by way of subsidy/ concession for indigenous and imported fertilizers. List of subjects allocated to the Department of Fertilizers as per Government of India (Allocation of Business) Rules, 1961 amended from time to time has been given at Annexure-I.

The Department is broadly divided into 5 Wings dealing with (i) Fertilizers Policy, Projects and Planning for Urea (ii) Fertilizer Policy, Projects and Planning for P&K Fertilizers (iii) Fertilizer Imports, Movement, Distribution and General Administration & Vigilance (iv) Finance and Accounts and (v) Economics and Statistics. The work of these Wings are being handled by three Joint Secretaries, one Additional Secretary cum Financial Adviser and one Economic Adviser respectively.

The Joint Secretary in-charge of (P&P) looks after the work relating to Phosphatic Fertilizer Policy, P & K Subsidy payments and import on government account payments, Joint Venture Projects of P & K Fertilizers (domestic and overseas), and WTO related issues. Joint Secretary (F&P) & ED FICC (Ex officio) is entrusted with the work pertaining to Urea Policy, PSUs matters, except vigilance, Special Purpose Vehicle for exploring Joint Ventures abroad, revival of closed Urea units including FCIL and HFCL, Urea Fertilizers Joint Ventures Projects (domestic nd overseas), over all project coordination 2. 1. 5 including JVs and long-term off-take policy. Joint Secretary (A&M) looks after the work relating to overall Fertilizer Policy Coordination, the movement of fertilizers and related policies and

coordination with States, shipping and import of Urea on Government account, Parliamentary work and coordination, branch administration and vigilance, FMS, OMIFCO related matters including off-take of Urea, implementation of finalized long term off take arrangements.

The Economic Adviser, an officer of Joint Secretary level advises the Department on various economic issues which have economic implications, S&T projects, matters relating to Agriculture Ministry such as Bio fertilizers, balanced fertilizers, soil health cards, nutrient absorption issues, micronutrients, organic fertilizers based on urban solid waste, subjects related to renewable and non-renewable energy, clean technology and general environmental issues, supply, demand, availability and price movement forecasting of various fertilizers, intermediates and raw materials and economic analysis of specific importance assisting in firming up policy issues. The list containing the names of Minister-incharge and the officers of the level of Deputy Secretary and above, who have worked in the Department during 2010-2011 is given in Annexure-II. Fertilizer Industry Committee (FICC) Coordination 2. 1. 6 2. . 2 2. 1. 3 2. 1. 7 2. 1. 4 2. 2 2. 2. 1 The office of Fertilizer Industry Coordination Committee is an attached office under the Department of Fertilizers headed by Executive Director. The FICC, was initially constituted w. e. f. 01. 12. 1977 to administer 12 and operate the erstwhile Retention Price cum Subsidy Scheme (RPS), The Retention Price Scheme stimulated indigenous production and consumption of fertilizers in the country. However, for attaining greater internal efficiencies and global competitiveness, unit specific approach of RPS was replaced by a

group based concession scheme called the New Pricing Scheme (NPS) from 01 April, 2003.

The Fertilizers Industry Coordination Committee (FICC), continues under the New Pricing Scheme for administration of the scheme for urea. 2. 2. 2 FICC is responsible to evolve and review periodically, the group concession rates including freight rates for units manufacturing nitrogenous fertilizers, maintain accounts, make payments to and to recover amounts from fertilizer companies, undertake costing and other technical functions and collect and analyze production data, costs and other information. 2. 2. 3 The FICC comprises of the Secretaries to the GOI in the Department of Fertilizers, Industrial Policy and Promotion, Agriculture and Cooperation, Expenditure, Ministry of Petroleum & Natural Gas, Chairman, Tariff Commission and two representatives of the urea industry.

The Department has under its administrative control nine(9) Public Sector Undertakings (PSUs), one multi –state cooperative society. The list is given at Annexure-III. 2. 2. 4 13 Chapter-3 3. 1 3. 1. 1 Development & Growth of Fertilizer Industry Capacity Build-up At present, there are 56 large size fertilizer units in the country manufacturing a wide range of nitrogenous, phosphatic and complex fertilizers. Of these, 30 units (as on date 28 units are functioning) produce urea, 21 units produce DAP and complex fertilizers, 5 units produce low analysis straight nitrogenous fertilizers and 9 manufacture ammonium sulphate as by-product. Besides, there are about 72 small and medium scale units in operation producing single super phosphate (SSP).

The total installed capacity of fertilizer production which was 119. 60 lakh MT of nitrogen and 53. 60 lakh MT of phosphate as on 31. 03. 2004, has marginally increased to120. 61 lakh MT of nitrogen and 56. 59 lakh MT of phosphate as on 01. 04. 2010. 3. 2 3. 2. 1 Production Capacity And Capacity Utilization The production of fertilizers during 2009-10 was 119. 00 lakh MT of nitrogen and 43. 21 lakh MT of phosphate. The production target for 2010-11 was 125. 16 Lakh MT of nitrogen and 48. 70 Lakh MT of Phosphate, representing a growth rate of 5. 2% in nitrogen and 12. 7% in Phosphate as compared to production in 2009-10. Production target for nitrogenous fertilizer is more than the installed capacity.

The production target for phospahtic fertilizer is less than installed capacity due to constraints in availability of raw materials/ intermediates which are substantially imported. However, taken together, the production of ‘ N’ and ‘ P’ during the year is higher than that in the corresponding period of last year 3. 2. 2 The production performance of both nitrogenous and phosphatic fertilizers during the year 2009-10 was satisfactory. Production of nitrogenous fertilizers was less than target by 1. 84 Lakh MT, as there was no production by SPIC. The production of phosphatic fertilizers was more then target by 1. 90 Lakh MT. The installed capacity of urea units in the country as follows:- 3. 2. 3 UREA UNITS SET UP BETWEEN: 1967-2010 WITH REASSESSED CAPACITY Year of Comm. 967 1969 1970 1971 1973 1975 1976 1978 1978 1979 1979 1981 1982 1982 1985 1986 1987 1988 1988 1988 1992 1993 1994 1995 1996 1997 1997 1998 1999 2005 Unit Feedstock and Sector Gas-Private Naphtha-Private Naphtha-Private Naphtha-Public Naphtha-Private Naphtha-Private Naphtha-Private FO/LSHS-Public Gas-Coop.

FO/LSHS-Public FO/LSHS-Public Gas—Coop. Gas-Public FO/LSHS-Private Gas-Public Gas-Coop. Gas-Public Gas-Public Gas-Coop. Gas-Private Gas-Private Gas-Private Gas-Private Gas-Private Gas-Cooperative Gas-Public Gas—Cooperative Naphtha-Private Naphtha/Gas-Private Gas-Public Installed Capacity (lakh/MT) 3. 706 3. 790 7. 220 4. 868 @ 3. 993 6. 200 3. 800 . 785 5. 445 @ 5. 115 5. 115 5. 511 3. 30 6. 360 17. 068 17. 292 3. 150 8. 646 8. 646 8. 646 5. 970 8. 646 8. 646 8. 646 8. 646 8. 646 8. 646 5. 970 8. 646 2. 400 @ GSFC-Baroda SFC-Kota DIL-Kanpur MFL-Madras ZIL -Goa SPIC-Tuticorin MCFL-Mangalore NFL-Nangal IFFCO-Kalol NFL-Bhatinda NFL-Panipat IFFCO-Phulpur RCF-Trombay-V GNFC-Bharuch RCF-Thal KRIBHCO-Hazira BVFCL-Namrup-III (Formerly HFC) NFL-Vijaipur IFFCO-Aonla Indogulf-Jagdishpur NFCL-Kakinada CFCL-Gadepan TCL-Babrala KRIBHCO SHYAM-Shahjahanpur (Formerly OCFL) IFFCO-Aonla expansion NFL-Vijaipur expansion IFFCO-Phulpur expansion NFCL-Kakinada expansion CFCL-Gadepan expansion BVFCL: Namrup-II

Note: @ After revamp 14 3. 2. 4 The following 9 urea plants of the companies are presently closed/under shutdown due to various reasons, inter-alia, on account of technological obsolescence, feedstock limitation, non-viability of unit/company and heavy financial losses. Name of the Company/Unit FCI: Gorakhpur FCI: Ramagundam FCI: Talcher FCI: Sindri HFC: Durgapur HFC: Barauni RCF: Trombay-I NLC: Neyveli FACT: Cochin-I Total Date of closures 10. 6. 1990 1. 4. 1999 1. 4. 1999 16. 3. 2002 1. 7. 1997 1. 1. 1999 1. 5. 1995 31. 3. 2002 15. 5. 2001 Annual Installed Capacity (In Lakh MT) 2. 85 4. 95 4. 95 3. 30 3. 30 3. 30 0. 98 1. 53 3. 30 28. 46 3. 3 3. 3. 1

Strategy for Growth The following strategy has been adopted to increase fertilizer production: • Expansion and capacity addition/ efficiency enhancement through retrofitting / revamping of existing fertilizer plants. Setting up joint venture projects in countries having abundant and cheaper raw material resources. Working out the possibility of using alternative sources like liquefied natural gas, coal gasification, etc. , to overcome the constraints in the domestic availability of cheap and clean feedstock, particularly for the production of urea. Looking at possibilities of revival of some of the closed units by setting up brownfield units subject to available of gas. Sl. No. 1. 2. 3. 4. 5. 6. 7. 8. 9. • • Note: Production by DIL-Kanpur (7. 2 LMT) was suspended due to financial constraints. • 3. 2. 5 The domestic fertilizer industry has by and large attained the levels of capacity utilisation comparable with others in the world. The capacity utilisation during 2009-10 was 98. 8% for nitrogen and 76. 8% for phosphate. The estimated capacity utilisation during 200910 is 99. 2% of nitrogen and 76. 9% of phosphate. Within this gross capacity utilization, the capacity utilisation in terms of the urea plants was 104. 4% in 2009-10 and 104. 3% in 2010. 11. As for phosphate fertilizers, apart from the constraints mentioned earlier, the actual production capacity utilisation has also been influenced by the demand trends.

The capacity utilisation of the fertilizer industry, particularly in respect of urea, is expected to improve further through revamping/ modernisation of the existing plants. The unit-wise details of installed capacity, production and capacity utilisation during 2009-10 and 2010-11 are given in AnnexureIV. 3. 4 3. 4. 1 Feedstock Policy At present, natural gas based plants account for

more than 66% of urea capacity, naphtha is used for less than 30% urea production and the balance capacity is based on fuel oil and LSHS as feedstock. The two coal based plants at Ramagundam and Talcher were closed down due to technological obsolescence and non-viability.

Natural gas has been the preferred feedstock for the manufacture of urea over other feedstocks viz. naphtha and FO/LSHS, firstly, because it is clean and efficient source of energy and secondly, it is considerably cheaper and more cost effective in terms of manufacturing cost of urea which also has a direct impact on the quantum of subsidy on urea. Accordingly, the pricing policy, announced in January 2004, provides that new urea projects, expansion of existing urea units and capacity increase through debottlenecking/ revamp/modernization will be also allowed/ 3. 4. 2 3. 2. 6 3. 2. 7 3. 4. 3 15 recognized if the production comes from using natural gas/LNG as feedstock.

For the same reasons, a policy for conversion of the existing nephtha/FO/LSHS based urea units to natural gas/LNG as feedstock has also been formulated in January 2004, which encourages early conversion to natural gas/ LNG. Pursuant to formulation of policy for conversion of non-gas urea units to gas, three naphtha based plants namely, Chambal Fertilizers & Chemicals Limited (CFCL), Gadepan-II and IFFCO-Phulpur-I & II have already converted to NG/LNG. Shriram Fertilizers & Chemicals Limited (SFC-Kota) has also started using gas w. e. f. 22 nd September 2007. 3. 5 3. 5. 1 Requirement and availability of Gas to Fertilizer Sector The projected yearwise/plantwise additional requirement of gas during the years 201112 to 2014-15 for fertilizer sector which has been communicated to Ministry of

Petroleum & Natural Gas (as on January 2011) or allocation by EGoM, is as below: YEARWISE/PLANTWISE ADDITIONAL REQUIREMENT OF NATURAL GAS S. No. Name of the unit 2011-12 A 1 2. 3 4. 5 6. I Naphtha based ZIL-Goa MCFL-Mangalore SPIC-Tuticorin MFL-Manali FACTUdyogmandal DIL-Kanpur Sub-Total of Naphtha based plants Fuel-Oil Based NFL-Panipat NFL-Nangal NFL-Bathinda GNVFC-Bharuch 0. 00 0. 00 0. 00 0. 00 0. 90 1. 00 0. 90 0. 95 0. 90 1. 00 0. 90 0. 95 0. 90 1. 00 0. 90 0. 95 0. 00 0. 00 0. 00 1. 54 0. 00 0. 00 1. 54 1. 28 1. 00 1. 66 1. 54 0. 94 1. 70 8. 12 1. 28 1. 00 1. 66 1. 54 0. 94 1. 70 8. 12 1. 28 1. 00 1. 66 1. 54 0. 94 1. 70 8. 12 Additional Requirement (mmscmd) 2012-13 2013-14 2014-15 S. No.

Name of the unit 2011-12 II C 11 12 13 14 15 16 17 18 III Sub-Total of Fuel-Oil Based Expansion Units IFFCO-Kalol Kribhco-Hazira RCF-Thal CFCL-Gadepan TCL-Babrala IGFL-Jadgishpur KSFLShahjahanpur NFCL-Kakinda (AP) Sub-total of Expansion Units Total of I+II+III D 18 19 20 21 22 23 24 25 IV E 26 27 28 29 V F 30 Closed Units HFCL-Durgapur HFCL-Barauni HFCL-Haldia FCI-Ramagundam FCI-Talcher FCI-Sindri FCI-Korba FCI-Gorakhpur Sub-Total of closed units REVAMP PROJECTS KRIBHCO-Hazira NFL-Vijaipur NFCL-Kakinada RCF-Thal Sub total of Revamp Projects GREEN FIELDS PROJECTS MATIX Fert. & Chem, Burdwan 0. 55 0. 80 0. 60 0. 04 0. 45 1. 89 0. 00 1. 54 0. 00 Additional Requirement (mmscmd) 2012-13 3. 75 2013-14 3. 75 2014-15 3. 75 0. 00 0. 00 0. 00 0. 00 0. 00 0. 00 0. 00 0. 00 0. 00 0. 00 11. 87 2. 90 2. 20 2. 20 2. 40 2. 20 2. 20 2. 22 2. 4 18. 72 30. 59 2. 90 2. 20 2. 20 2. 40 2. 20 2. 20 2. 22 2. 4 18. 72 30. 59 0. 00 0. 00 0. 00 0. 00 0. 00 0. 00 0. 0 0. 00 0. 00 0. 00 2. 20 2. 20 2. 20 2. 20 2. 20 2. 20 2. 20 2. 20 2. 20 17. 60

2. 20 2. 20 2. 20 2. 20 2. 20 2. 20 2. 20 2. 20 17. 60 0. 80 0. 60 0. 60 0. 45 2. 45 0. 80 0. 60 0. 70 0. 45 2. 55 0. 80 0. 60 0. 70 0. 45 2. 55 B 7 8 9. 10 3. 20+1 (as fall back allocation) 0. 00 4. 75 4. 75 31 ZIL-Greenfield project-Belgaun 0. 00 2. 46 2. 46 16 S. No. Name of the unit 2011-12 32 DIL-Kanpur 0. 00 Additional Requirement (mmscmd) 2012-13 3. 85 (for feedstock) 1. 0 (for steam generation) 0. 00 1. 00 2. 4 12. 45 26. 77 2013-14 4. 60 2014-15 4. 60 3. 5. 4 33 34 35 VI GSFC-Dahej GNVFC Oswal Chem & Fertilizers Ltd Subtotal of Greenfield Projects G. TOTAL 0. 0 1. 00 (CPSU) 0. 00 1. 55 4. 98 3. 50 1. 00 2. 4 18. 71 69. 45 3. 50 1. 00 2. 4 18. 71 69. 45 The indigenous production capacities can come up in future with the above gas availability provided the gas is available at reasonable price. World over the price of gas is showing an upward trend but the countries rich in gas resources are having special assured price for fertilizer sector. The fertilizer sector in Middle East and North East Africa is based on gas prices of approximately 50 cents per MMBTU to $ 1. 5 – 2 per MMBTU. This has led to a lower cost of production in these countries, which are also the major exporters of urea in the world.

By producing in India, the country not only becomes self-sufficient in urea production and immune from demand driven escalation in international prices, but it also leads to increase in economic activity within the country, increase in employment, industrial development, etc. At the same level of gas prices, the country will save approximately USD 60 per MT of urea by producing within the country as compared to importing from Middle East countries on price equivalent to cost of production. The savings will be on account of lower capital cost (USD 20 per MT approx), shipping freight (USD

20 per MT) and port handling charges (USD 20 per MT). In addition, there will be savings on account of internal transportation of urea depending upon the location of the plant.

In addition to the issue of availability in pricing of gas, the other major important issue in this sector is provision of gas pipeline connectivity to the existing urea units in the country and proposed urea units in future. At present 8 operational units are not on the gas grid and their connectivity with the gas grid is critical for their conversion to gas. Further 8 closed units of FCIL and HFCL are presently away from the gas grid and their connectivity with gas pipeline is prerequisite for revival of these closed units. Ministry of Petroleum and Natural Gas has projected the following pipeline connectivity of gas to existing and closed units in the country will be provided by 2012:-

3. 5. 2

It is expected that with the above availability of gas, the production capacities in existing units will increase, closed fertilizer units will be revived new Greenfield/Brown field projects will be set up and non gas based fertilizer plants will be converted to gas, taking the overall production capacity of urea in the country to more than 31 million tonnes. Likewise, the projected requirement of urea by the end of 11th Plan is expected to be around 31 million tones including the required quantities for maintaining the supply chain and buffer stocks. It is expected that with above availability of gas at reasonable prices, the country will become self-sufficient in urea requirement by the end of 11th Plan. The above availability of gas will also help our country to become an export surplus nation in urea sector. The

above requirement of gas is based on the desired need to make the country selfsufficient in urea production.

This is necessary in light of the fact that our agricultural sector needs to be insulated from the volatile international prices of fertilizers and at the same time the fertilizer subsidy bill need to be reduced. Urea is the only fertilizer, in which the country can become self-sufficient with the projected availability of gas in future. In phosphatic and potassic sector, we are largely import dependent and are subject to large-scale volatility in world prices of these fertilizers. 3. 5. 5 3. 5. 6 3. 5. 3 17 PIPELINE CONNECTIVITY PLAN (As provided MoPNG) S. No. Proposed pipeline Agency for connecting plants Fertilizer unit proposed to be connected Expected year of connectivity Naphtha based plants 1 2 3 4 5 Dhabol. Gogak-Bangalore Chennai-Bangalore-Mangalore GAIL RGTIL ZIL, Goa MCFL, Mangalore FACT, Cochin SPIC, Tuticorin MFL, Chennai 2012 Dec-12 2012 Dec-12 Dec-12 Kochi-Kanjrrikod-Bangalore-Mangalore GAIL Chennai-Tuticorin Kakinada- Chennai Fuel Oil/LSHS based plants RGTIL RGTIL 5 Dadri-Bawana-Nangal Closed units GAIL NFL- Nangal, Panipat, Bhatinda 2009-10 6 7 Spur on Kakinda to Uran via Hyderabad Spur from the following pipeline : Jagdishpur-Haldia RGTIL GAIL FCI, Ramagundam FCI, Sindri FCI, Gorakhpur HFC, Barauni HFC, Durgapur HFC, Haldia FCI, Talcher Country assured sources of supplies of Urea and Phos acid, a critical input for production of Phosphatic fertilizers.

Further two more projects JIFCO Jordan and TIFERT Tunisia are about to be commissioned in the year 2010. The details of the existing joint venture in the fertilizer sector are: 8 3. 6. 3. 6. 1 Spur from Kakinada-Haldia Pipeline Joint Ventures abroad RGTIL Due to constraints in the availability of gas in

the country, which is the preferred feed stock for production of nitrogenous fertilizers, a near total dependence of the country on imported raw materials for production of Phosphatic fertilizers and full import dependence for MOP, the Government has been encouraging Indian companies to establish Joint ventures production facilities with buy back arrangement in other countries, which are rich in fertilizer resources.

Existing joint ventures, namely Oman India Fertilizer Company (OMIFCO), Oman in Urea and Industries Chimiques du Senegal (ICS), Senegal and Indo-Maroc Phosphor (IMACID), Morocco in Phosphate have given the 3. 6. 2. 1 OMIFCO Oman: Krishak Bharati Cooperative Ltd. (KRIBHCO), Indian Farmers Fertilizers Cooperatives Ltd. (IFFCO) and Oman Oil Company with respective share holding of 25%, 25% and 50% have collaborated and set up a world class urea-ammonia fertilizer plant ‘ Oman India Fertilizer Company (OMIFCO), in Oman at a cost of US $ 892 million. It consists of 3. 6. 2 18 5060 MTPD granular urea and 3500 MTPD Ammonia plants along with utilities in the coastal town of Sur in Oman. The annual capacity of the fertilizer complex is 16. 52 lakh MT of granular Urea.

The entire quantity of Urea is off taken by the Government of India as per Urea Off-Take Agreement (UOTA) at pre determined prices. Government of India also off takes surplus quantity of Urea, if any, as per price agreed for the additional quantity. In addition, 2. 5 lakh MT of surplus Ammonia per year is also produced by the Plant for which IFFCO has Ammonia Off-Take Agreement (AOTA). OMIFCO is examining possibility of expansion and increase in production of Urea and Ammonia. 3. 6. 2. 2 ICS Senegal The Government of India (GoI), Indian Farmers Fertilizer Cooperative Ltd. (IFFCO)

and Southern Petrochemicals Industries Corporation Ltd. (SPIC) formed a joint venture company in Senegal named Industries Chimiques du Senegal (ICS).

Later on SPIC withdrew from the project. In recent past, the company suffered financial losses. However, ICS Senegal has been restructured in 2008 with Government of India, IFFCO and other Indian consortium partners having 85% and Government of Senegal having 15% share. The restructuring plan after having been approved by the Regional High Court of Dakar (Senegal) on 27. 3. 2008 has come into effect and ICS Senegal, as restructured is in operation. ICS Senegal has a capacity to produce 6. 60 lakh tones of phosphoric acid per annum and also finished phosphate fertilizer such as DAP and Complex fertilizers. A major portion of the phosphoric acid, about 5. LMT produced in the ICS plant is off-taken by IFFCO as per a long term buy back arrangement and utilized for production of phosphate fertilizers in India. The finished fertilizers, DAP and complex fertilizers, produced by ICS Senegal is for domestic consumption in Senegal. 3. 6. 2. 3 IJC Jordan SPIC, Jordan Phosphates Mines Company Ltd. (JPMC) and Arab Investment Company (AIC) set up a joint venture project, IndoJordan Chemicals Company Limited (IJC) in Jordan in May 1997 with a capacity of 2. 24 lakh tonnes of phosphoric acid production per annum. 52. 17% of the equity of the joint venture is held by SPIC, 34. 86% by JPMC and 12. 97% by AIC.

Phosphoric Acid produced by IJC is off-taken by SPIC and other fertilizer units in India. 3. 6. 2. 4 IMACID Morocco IMACID, a joint venture between Office Cherifien des Phosphates (OCP), Morocco, and Chambal Fertilizers &

Chemicals Ltd. (CFCL), India to produce 3. 60 lakh MT of phosphoric acid per annum was commissioned in Morocco in October 1999. After subsequent joining of Tata Chemicals Limited (TCL), capacity of the plant has been increased to 4. 30 LMT per annum. Initially, equity of US$ 65 million in the venture was held by OCP & CFCL equally. Subsequently, in May 2005, both OCP & CFCL have sold one-third of their equity stake in IMACID to TATA Chemicals Limited. 3. 7 3. 7. Overseas Joint Ventures Under Implementation / Consideration: JIFCO Jordan Indian farmers Fertilizers Cooperative Ltd (IFFCO) and Jordan Phosphate Mining Company (JPMC) have agreed for setting up of a joint-venture Phosphoric Acid production plant, Jordan India Fertilizer Company (JIFCO) in Jordan with an installed capacity of 1500 MT of phosphoric acid per day (MTPD). Equity hodling in the project is 52: 48 between IFFCO and JPMC, respectively. The plant is expected to be commissioned in 2010. 3. 7. 2 TIFERT Tunisia Gujarat State Fertilizers & Chemicals Ltd (GSFC) and Coromandel International Ltd 19 (CIL), formerly Coromandel Fertilizers Ltd. (CFL) both Indian entities alongwith Groupe Chimique Tunisien (GCT) & Compagnie Des Phosphates De Gafsa (CPG), both Tunisian entities are setting up a joint venture project, Tunisian Indian Fertilisers S. A. (TIFERT) at Skhira in Tunisian for production of 3. lakh MT of Phosphoric Acid per annum. The entire production of phosphoric acid would be for off take by GSFC and CIL. An MOU to this effect was signed in October, 2005 between parties. Estimated cost of the project is approx. US $ 165 million + 5% with equity of US$66 million and borrowings of US $99 million. The project is expected to be commissioned in 2010. 3. 7. 3 Cooperation in Syria The India-Syrian Joint Commission in its meeting held in January 2008 took note of the mutual interest of both countries in the field of Phosphatic

raw-materials and products. It was agreed that both countries would work for cooperation in the fertilizer sector in Syria.

Accordingly, a consortium of Indian entities including MECON, RITES and PDIL (All central Government PSUs), having expertise in the fields of mining, beneficiation, processing, setting-up and running the phosphatic plants and logistic aspects are undertaking capacity enhancement consultancy study with GECOPHAM in Syria. Government of India is funding the study. As per the MOU signed between this Department and GECOPHAM in May 2009, the Indian consortium undertook the feasibility studies, which have now been completed and the Pre-Feasibility Report has been submitted to the Syrian Authorities. A Government level MOU spelling out broad frame work of cooperation in Phosphate sector between the Countries has also been signed in Oct’2010. A delegation from DOF and the consortium is visiting Syria in February’2011 to discuss the Draft Feasibility Report and other modalities to proceed further, with the Syrian Authorities. 3. 7. 4

Cooperation with Russia On 12. 03. 2010 an MOU has been signed between the Government of India and the Government of Russia, during the visit of Prime Minister of Russia to India, envisaging inter-alia encouraging collaboration in the areas of trade, production, possible establishment of Joint Ventures, investment and R&D activities, exchange of information and holding of consultations on the issues of production and consumption of mineral fertilizers, exchange experience encourage contacts between the specialists, organization of Joint Conferences, symposia and business events on the issues of Cooperations in the sector of mineral fertilizers. 3. 7. 5

Cooperation in Indonesia A team led by the Secretary (F) VISITED Indonesia during 30. 10. 2010 to 02. 11. 2010 to hold preliminary discussions with the Indonesian Authority to ascertain the technical feasibility of putting up of an Ammonia Urea plant based on Coal Gasification Technology. During the visit of the President of Indonesia Chief Guest on occasion of the Republic Day is Jan'2011 following two documents have been signed: (i) MOU for setting up an Ammonia Urea Plant in Indonesia and agreement for offtake of surplus urea produced in the plant. (ii) Agreement for supply of 3 lakh MT of Urea and 2. 5 LMT of NPK Complex fertilizer in designated grades. 3. 7. 6

Cooperation in Australia Indian Farmers Fertilizer Cooperative Ltd (IFFCO) has entered into a ' Principles of Offtake Agreement' with Legend International Holdings of Australia to undertake joint mining of rock phosphate in Lady Annie mines (Georgina Basins in Queens land) along with an assured three million MT annual off-take. A total of US $800 million investment has been envisaged for undertaking rock phosphate mining in 20 Australia. IFFCO will receive 30 million options in Legend International Holdings. IFFCO would provide both technical and financial facilitation to Legend International Holdings in the development of its phosphate mining and shipment of its product to India. In Ammonia-Urea sector, KRIBHCO and NWCF, a private company in Australia are in the process of setting up of a coal bases ammonia-urea plant in Australia. The project cost is approx. US $ 2. 6 billion and KRIBHCO's equity will be approx. US $ 165 million.

The Australian company proposed to enter into a 20 year agreement for supply of urea. Agreement on mutual Terms & Conditions including the price on which the urea will be made, are yet to be finalized. 3. 7. 7 Cooperation in

Ghana Given its gas reserves, Ghana is considered a rich source of nitrogenous feedstock. Chairman of Ghana National Petroleum Corporation (GNPC), Ghana during his visit to India, in Sep’2009 and discussed with the Secretary (F) the possibility of cooperation in Fertilizer sector was discussed. It was proposed to set-up a Ammonia-Urea plant (Gas based) in Ghana. To give proper shape to the project proposal, an MOU has been signed in July’2010 at the Government level between the Countries.

As per MOU, to proceed further a technical team comprising of Officers from RCF & PDIL visited Ghana. Site selection Report and the Pre-feasibility reports were prepared by RCF and PDIL, which were provided to Ghanian Authorities. In January’2011 a team led by Secretary (F) visited Ghana to discuss further modalities in the matter. Ghanian Authorities have been requested for a quick decision on pricing of Gas. 3. 7. 8 Discussions for cooperation in fertilizer sector countries for long term cooperation for setting up of projects for production and off take of fertilizers: (i) Discussion at Government level is underway with the Government of Senegal for development of Matam phosphate mines. ii) Two separate consortia of Indian entities comprising IPL & IFFCO and MMTC & RCF are in discussion with M/s Potash One and M/s Athabasca Inc respectively of Saskatchewan province for setting up Joint Venture projects in mining of Potash and off take to India. Consortium of RCF and MMTC which is pursuing with Athabasca, have signed an MOU for JV project with Athabasca for evaluation and assessment in technical, marketing and financial aspect. They have also signed a confidentiality Agreement for sharing related information. Consortium of IFFCO and IPL have requested PotashOne for providing detailed costing and

other economic parameters involved in the project. (iii) RCF and IDC/FOSKOR of South Africa are exploring the possibilities to set up a Phosphoric Acid and Ammonia-Urea fertilizer project near Maputo Port, the capital city of Mozambique.

The project proposes to source Rock from the new mines of Foskor in Phalaborwa, South Africa. An MOU has been signed between RCF and IDC/FOSKOR. Department of Fertilizers has been pursuing with M/s SASOL, for allocation of gas in Mozambique for setting up a JV ammoniaurea project. 3. 7. 8. 2 M/s SPIC and Chambal Fertilizers are in the process of setting-up a gas based nitrogenous fertilizer plant at Dubai in UAE to produce 4. 00 LMT of urea per annum. 3. 7. 8. 3 Discussion are also going on for exploring possibilities for a Ammonia-Urea project Qatar with buy back by India. IFFCO and QUAFCO (Public sector entity of Qatar) have signed ‘ Agreement of Intention’ on 24. 2. 2009 for the same. 3. 7. 8. Discussion are on with the fertilizer and mining entities in following resource rich 21 Chapter-4 4. 1 Availability of Major Fertilizers During 2010-11 4. 2 anywhere in the country at notified maximum retail price. Decontrolled Fertilizers – DAP & MOP Controlled Fertilizer – Urea 4. 1. 1 The availability of urea, which is the only fertilizer under price and partial movement control of Government, remained satisfactory throughout the Kharif 2010 season as well as during the current Rabi 2010-11(Up to December, 2010). Kharif 2010 4. 2. 1 In case of fertilizers other than the urea, which are decontrolled, no allocation is made under Essential Commodities Act (ECA) by the Central Government.

Assessment of requirement of Urea, DAP and MOP is being made by the Department of Agriculture & Cooperation to enable better monitoring of

availability at the national level. DAP and MOP are the two major decontrolled and decanalised fertilizers, which may be imported freely. Kharif 2010 4. 1. 2 The field opening stock of 2. 21 LMT as on 1. 4. 2010 coupled with indigenous production of 104. 12 LMT and imports of 25. 83 LMT helped in progressively ensuring adequate availability to the States throughout the season. The cumulative availability of urea at the end of the season was nearly 132. 16 LMT against the assessed requirement of 136. 65 LMT. The sales of 126. 02 LMT urea during Kharif 2010. 4. 2. 2 DAP 4. 2. The imports of 57. 85 LMT of DAP coupled with indigenous production of -19. 14 LMT and the opening stock of 2. 02 LMT of DAP as on 1st April, 2010 resulted in satisfactory availability of about 79. 01 LMT DAP during Kharif 2010 season against the assessed requirement of 68. 75 LMT. The sales of DAP in Kharif 2010 were about 65. 05 LMT. Rabi 2010-11 4. 1. 3 The requirement of urea for Rabi 2010-11 has been assessed at 154. 14 LMT envisaging a growth of about 8. 79% over the sales of 141. 69 LMT in Rabi 2010-11. The requirement is being met from the opening stocks taken together with estimated production of 108. 55 LMT and imports of about 54. 0 LMT during the season. Thus the cumulative availability of urea for Rabi 2010-11 has been estimated to be about 168. 55 LMT by the end of 31st March, 2011. Allocation of urea was restricted to 50% of production of installed capacity of each manufacturer during Kharif 2010 and Rabi 2010-11. The manufacturers are free to sell the remaining quantity of urea to the farmers MOP 4. 2. 4 The imports of 26. 54 LMT of MOP taken together with opening stock of 0. 97 LMT as on 1st April, 2010 resulted in availability of about 27. 51 LMT during Kharif 2010 season against the assessed requirement of 22. 98 LMT. The sales of MOP were reported as about 19. 63 LMT. 4. 1. 4

Rabi 2010-11 DAP 4. 2. 5 The production of DAP during Rabi 2010-11 is estimated to be about 18. 53 LMT. Stocks 22 as on 1. 10. 2010 coupled with estimated imports will be adequate in meeting the country’s requirement of DAP assessed at 52. 17 LMT during Rabi 2010-11, considering that about 5. 88 LMT of DAP will be surplus towards the requirement of Rabi 2010-11. MOP 4. 2. 6 Stocks of MOP as on 1. 10. 2010 coupled with adequate imports till March 2011 will ensure that the country’s requirement of MOP during Rabi 2010-11 is fully met. Following table summarizes the season-wise position in respect of the availability and sales of the major fertilizer i. e.

Urea, DAP & MOP during the last three seasons: Demand Assessment Cumulative Availability Cumulative Sales %age of availability to assessed demand 95. 94 132. 47 104. 16 98. 14 73. 93 130. 71 96. 71 114. 92 119. 71 4. 3 4. 3. 1 Movement of Fertilizers Under the Allocation of Business Rules, the Department of Fertilizers has been entrusted the responsibility of ensuring movement, distribution and allocation of controlled fertilizer, i. e. urea, from various fertilizer plants and ports in accordance with the Statewise requirement assessed by the Department of Agriculture & Co-operation (DAC). The distribution of imported urea is made keeping in view the requirements of each of the States. The major share in transportation of fertilizers is of the Railways.

During 2009-10, Railways had moved about 75% of the fertilizers produced and/or imported in the country. Judicious management of the demand-supply balance has helped in maintaining the average lead of fertilizer movement by rail. During 2009-10 the average lead was 827 KMs. During the current year the average lead for the period April-November, 2010 would also be

almost same. 4. 2. 7 4. 3. 2 Crop season 4. 3. 3 Kharif 2009 Urea DAP MOP Rabi 2009-10 Urea DAP MOP Kharif 2010 Urea DAP MOP 136. 36 49. 21 21. 61 145. 53 57. 77 22. 24 136. 65 68. 75 22. 98 130. 83 65. 19 22. 51 142. 83 42. 71 29. 07 132. 16 79. 01 27. 51 122. 78 61. 34 18. 52 141. 69 42. 57 28. 21 126. 02 65. 05 19. 63 23 Chapter-5 5. 1 5. 1. Plan Performance The installed capacity and production of fertilizers in the country at the end of eighth five year plan, in the terminal year of the ninth plan and at the beginning of 5th year of tenth plan (2006-07) are indicated below: 5. 1. 3 Year-wise consumption, production and imports of fertilizers in nutrients terms are given in Annexure-V The production of fertilizers in nutrient terms during 2009-10 was 119. 00 lakh MT of nitrogen and 43. 21 lakh MT of phosphate. 5. 1. 4 INSTALLED CAPACITY AND PRODUCTON OF NITROGENOUS AND PHOSPHATIC FERTILIZERS IN EIGHT, NINTH AND TENTH FIVE YEAR PLANS. (In lakh MT) Sr. No 1 Particulars At the end of Eighth Five Year Plan (1996-97) 97. 77 29. 05 85. 99 25. 56 At the end of Ninth Plan (2001-02) 120. 58 52. 31 107. 68 38. 0 At the beginning of 5th year of Tenth Plan (2006-07) 120. 61 56. 59 115. 78} 45. 17} Capacity i) Nitrogen ii) Phosphates Production i) Nitrogen ii) Phosphates 2 5. 1. 2 The installed capacity of nitrogen and phosphate in the terminal year (1996-97) of the eighth plan was 97. 77 lakh MT and 29. 05 lakh MT, respectively. Three major phosphatic fertilizer plants were commissioned during the ninth five year plan period, namely, Oswal Chemicals & Fertilizers Ltd. -Paradeep, (since taken over by IFFCO), Indo-Gulf Corporation-Dahej and Gujarat State Fertilizers Company Ltd. -SikkaII. Consequent upon reassessment of urea capacity on the basis of Dr. Y. K.

Alagh Committee and DAP capacity by Tariff Commission, despite phasing out of 10 urea units due to closure, the installed capacity of nitrogen and phosphate has increased from 97. 77 lakh MT at the end of eighth plan to 120. 61 lakh MT and 29. 05 LMT to 56. 59 LMT respectively during the same period. The estimated production for 2010-11 is 121. 75 lakh MT of nitrogen and 45. 32 lakh MT of phosphate. Sector-wise targets and achievements in respect of production and capacity utilization from 2001-02 onwards are given in Annexures-VI & VII. 5. 2 5. 2. 1 Plan Outlays For the Eleventh Five Year Plan (2007-12), Planning Commission has approved an outlay of Rs. 20627. 87 crore consisting of Rs. 1492. 0 crore as Domestic Budgetary Support and Rs. 19135. 87 as Internal & Extra Budgetary Resources (IEBR). For the year 2010-11, a plan outlay of Rs. 2914. 99 crore was approved by the Planning Commission, with Rs. 2699. 99 crore to be met out of IEBR and balance amount of Rs. 5. 2. 2 24 215 crore as budgetary support. The details of Plan outlays are given Annexure-VIII. 5. 2. 3 The outlays for 2011-12 is Rs. 3550. 22 crore, of which an amount of Rs. 3325. 22 crore will be met from the internal and extra budgetary resources and the balance amount of Rs. 225. 00 crore will be provided by way of budgetary support. The gross outlay of Rs. 3550. 00 crore is for FCI-FAGTMIL (Rs. 4. 5 crore), Fertilizers ad Chemicals Travancore Ltd (Rs. 60. 74 crore), Bramhaputra Valley Fertilizer Corppration Ltd (Rs. 67. 80 crore), Madras Fertilizers Ltd. (Rs. 88. 95 crore), National Fertilizes Ltd (Rs. 2363. 08 crore), Project and Development of India Ltd. (Rs. 9. 73 crore), Rashtriya Chemicals & Fertilizers Ltd (Rs. 293. 30 crore). Krishak Bharati Cooperative Ltd (Rs. 654. 96 crore) and other Mis. Departmental Schemes such as (MIS/IT and R&D) 7. 50 crore. Department of Fertilizers is exploring possibilities of Joint Ventures abroad. Since there is no

firm proposal in hand right now only a token provision of Rs. 0. 10 crore has been provided. 5. 2. 4.

Of the total outlay, the budgetary support of Rs. 225. 00 crore is for Fertilizers & Chemicals Travancore Ltd. (Rs. 60. 74 crore), Madras Fertilizers Limited,(Rs. 88. 95 crore), Bramhaputra Valley Fertilizer Corporation Ltd (Rs. 67. 80 crore) and other Departmental Schemes (Rs. 7. 50 crore). Under the other Departmental Schemes, there is a provision of Rs. 2. 00 crore for S&T Programme: Rs. 5. 50 crore for Information Technology, Rs. 0. 001 crore has been for investment for Joint Ventures abroad. 5. 2. 5. For the year 2010-11, there was net budgetary provision of Rs. 50, 215. 00 crore. Rs. 215. 00 Crore under Plan and Rs. 50, 000. 00 crore under Non-Plan.

In the Revised Estimates (RE) for 2010-11, the net provision is Rs. 55, 215. 00 crore, Rs. 215. 00 crore under Plan and Rs. 55. 000. 00 crore under Non-Plan. The details of Non-Plan and Plan Provision in 2010-11 (BE) and (RE) are given in Annexure-IX. 25 Chapter-6 6. 1 6. 1. 1 Measures of support for fertilizers For sustained agricultural growth and to promote balanced nutrient application, it is imperative that fertilizers are made available to farmers at affordable prices. With this objective, urea being the only controlled fertilizer, is sold at statutorily notified uniform sale price, and decontrolled phosphatic and potassic fertilizers are sold at indicative maximum retail prices (MRPs). The roblems faced by the manufacturers in earning a reasonable return on their investment with reference to controlled prices, are mitigated by providing support under the New Pricing Scheme for urea units and the Concession Scheme for decontrolled phosphatic and potassic fertilizers. The statutorily notified sale price and indicative MRP is generally less than the

cost of production of the respective manufacturing unit. The difference between the cost of production and the selling price/ MRP is paid as subsidy/ concession to manufacturers. As the consumer prices of both indigenous and imported fertilizers are fixed uniformly, financial support is also given on imported urea and decontrolled phosphatic and potassic fertilizers. Measures of Support for Urea Until 31. 3. 2003, the subsidy to urea manufacturers was being regulated in terms of the provisions of the erstwhile Retention Price Scheme (RPS).

Under RPS, the difference between retention price (cost of production as assessed by the Government plus 12% post tax return on networth) and the statutorily notified sale price was paid as subsidy to each urea unit. Retention price used to be determined unit wise, which differed from unit to unit, depending upon the technology, feedstock used, the level of capacity utilization, energy consumption, distance from the source of feedstock/raw materials, etc. Though the RPS did achieve its objective of increasing investment in the fertilizer industry, and thereby creating new capacities and enhanced fertilizer production along with increasing use of chemical fertilizers, the scheme had been criticized for being cost plus in nature and not providing incentives for encouraging efficiency. 6. 2. Given the importance of fertilizer pricing and subsidization in the overall policy environment, which has direct implications with reference to the growth and development of agriculture and sustainability of the fertilizer industry, the need for streamlining the subsidy scheme in respect of urea producing units had been felt for a long time. A High Powered Fertilizer Pricing Policy Review

Committee (HPC) was constituted, under the chairmanship of Prof. C. H. Hanumantha Rao, to review the existing system of subsidization of ur