

Fertilizer

31. Given the fixed arable land resource, the increasing pressure of population necessitates higher productivity levels which are possible to achieve mainly through higher coverage under irrigation and more intensive use of nutrients. With an all India consumption level of 73.8 Kg per hectare of fertilizer nutrients in 1995-96 the country's fertilizers use does not compare so unfavourably with other foodgrains producing countries except China and Egypt as shown below:

Country	Consumption (kg./ ha.) 1995-96
India	73.8
China	370.7
Egypt	345.4
Bangladesh	135.4
Pakistan	113.1
USA	107.1

32. But within the country the consumption level is uneven. Orissa, Madhya Pradesh, eastern U.P. and some parts of Bihar are characterised by low level of fertilizer consumption (Table 8.17).

33. Nutrient wise break up in terms of NPK shows disproportionately larger share of nitrogen use vis-a-vis other two nutrients (Table 8.18).

34. The ideal NPK ratio aggregated for the country as a whole is 4:2:1, but at present all India NPK ratios are far removed from this norm (Table 8.19). Consumption is biased in favour of nitrogenous fertilizer whose predominant use is a consequence of the past administered pricing policy adopted for different fertilizers. Urea continues to operate under a price control system after phosphatic and potassic fertilizers (including DAP, MOP and complex grade fertilizers) were decontrolled in August 1992. Fertilizers Pricing Policy Review Committee submitted a list of recommendations in April 1998 which are under consideration of the Government (See Box 8.1)

35. The consumer prices of fertilizers after taking into account the concession on decontrolled fertilizers are listed in Table 8.20.

36. Decline in consumption of DAP and MOP as a result of sharp rise in their prices following price decontrol in 1992 led to government intervention by way of subsidy to the consumers in the form of price concessions as listed below:

<i>Rates of Concession in Rs. Per Tonne</i>				
	upto 5.7.1996	6.7.1996 to 31.3.1997	1.4.1997 to 30.9.97	1.10.97 to 31.3.98
Indigenous DAP	1000	3000	3750	3500
Imported DAP	-	1500	2250	2000

TABLE 8.17 Per Hectare Consumption of Fertilizer Nutrients (Kgs.)		
State	1995-96*	1996-97*
Punjab	164.22	156.99
Andhra Pradesh	136.99	138.37
Haryana	121.38	127.70
Tamil Nadu	107.51	112.58
U.P.	101.22	107.57
West Bengal	97.24	102.79
Bihar	72.95	79.61
Gujarat	67.35	72.72
Karnataka	77.97	68.75
Maharashtra	64.15	62.05
Madhya Pradesh	33.47	39.42
Orissa	24.43	25.79
All India	73.75	76.05
*Estimated		

TABLE 8.18 Consumption of Fertilizer Nutrients (Million Tonnes of Nutrients)				
Year	Nitrogen (N)	Phosphate (P)	Potash (K)	Total NPK
1960-61	0.2	0.1	-	0.3
1970-71	1.5	0.5	0.2	2.2
1980-81	3.7	1.2	0.6	5.5
1990-91	8.0	3.2	1.3	12.5
1995-96	9.8	2.9	1.2	13.9
1996-97	10.3	3.0	1.0	14.3
1997-98	11.1	4.0	1.4	16.5
* Estimated				

TABLE 8.19 N P K Consumption Ratio			
Year	Nitrogen	Phosphate	Potash
1960-61	7.2	1.8	1
1970-71	6.5	2.0	1
1980-81	5.9	1.9	1
1990-91	6.0	2.4	1
1995-96	8.5	2.5	1
1996-97	10.0	2.9	1
1997-98*	8.0	2.9	1
* Estimated			

Muriate of				
Potash (MOP)	1000	1500	2000	2000
SSP (16per cent)	340	500	600	600
Indigenous				
Complexes	435-999	1304-2633	1630-3320	1522-3130

Fertilizer Production

37. Production of nitrogenous and phosphatic fertilizers in 1996-97 was 11.15 million tonnes. In 1997-98, the production of N+P is expected to increase to 13.06 million tonnes (10.09 million tonnes of nitrogen and 2.97 million tonnes of phosphates). Production, imports and, subsidy is listed in Table 8.21 .

Year	Urea	DAP	MOP	Relative Price Ratio	
				DAP/ Urea	MOP/ Urea
1990-91	2350	3600	1300	1.53	0.55
1991-92	3060	4680	1700	1.53	0.56
1992-93(K)	3060	4680	1700	1.53	0.56
1992-93(R)	2760	6650	4500	2.41	1.63
1993-94(K)	2760	6600	3800	2.39	1.38
1994-95(K)	3320	7500	3800	2.26	1.14
1995-96(K)	3320	9800	4450	2.95	1.34
1995-96(R)	3320	10000	4600	3.01	1.39
1996-97(K)	3320	11000*	4800*	3.31*	1.44*
1996-97(R)	3320	9000**	4300**	2.71**	1.29**
1997-98	3660	8300	3700	2.27	1.01

* Upto 6th July, 1996. K-Kharif R-Rabi
** With enhanced prices concession on DAP/MOP.

Year	Production		Imports N+P+K	Subsidy (Rs. crore)		
	N	P		Domestic Fertilizers	Imported Fertilisers	Total
1960-61	98	52	419	—	—	—
1970-71	830	229	629	—	—	—
1980-81	2164	841	2759	170	335	505
1990-91	6993	2052	2758	3730	659	4389
1995-96	8777	2558	4008	4300	1935	6235
1996-97	8599	2556	2014	4743	1350	6093
1997-98(E)	10086	2976	3246	6600	826	7426

(E) - Estimated

BOX 8.1

Recommendations of the High Powered Fertilizers Pricing Policy Review Committee

The Committee headed by Prof. C.H. Hanumantha Rao made the following recommendations :

- Promoting balanced fertilizer use should be the major objective and relative pricing of fertilizers should reflect the desirable NPK ratio.
- In the light of current relative pricing of different feedstocks, future fertilizer production should be appropriately based on domestic natural gas and LNG.
- Plants based on naphtha, FO and coal should be encouraged to restructure themselves to move over to more energy efficient feedstock.
- The fertilizer industry be deregulated, units be allowed to fix their retail pricing subject to ceiling farmgate prices (FGP).
- A normative referral price (NRP) be determined based on Long Run Marginal Cost (LRMC) method for the existing units for the purpose of arriving at subsidy to be paid on the sale of fertilizers within notified ceiling FGP.
- Subsidy be given through the manufacturers uniformly per tonne of fertilizer sold to the extent of the gap between NRP plus dealers margin and average freight, and FGP.
- Imports of urea be canalised for a period of five years.
- Additional freight and inventory cost be reimbursed to units in respect of fertilizers distributed in remote and inaccessible places to be notified for this purpose.
- Output from new urea units set up on strategic considerations be given an additional subsidy to cover their higher cost of production based on LRMC.
- To enhance cohesiveness of policies in the controlled and decontrolled segments of the fertilizer industry, the new pricing methodology should extend to phosphatic fertilizers also. Similarly, low analysis fertilizers like Single Super Phosphate (SSP), Ammonium Sulphate (AS), Calcium Ammonium Nitrate (CAN) and Ammonium Chloride (AC) should also be priced on the basis of their nutrient content.
- The gap between the farm gate prices of MOP, which is fully imported, and its border price be bridged in stages.
- Government should evolve a system of compensation to small and marginal farmers for any future increase in farmgate prices and that the credit availability for fertilizers for small and marginal farmers should be enhanced.
- Keeping in view the need for increasing cohesiveness in policies in fertilizer sector, a Fertilizer Planning Board may be set up to prepare policy options.