



# **CENTRAL GOVERNMENT SUBSIDIES IN INDIA**

## *A REPORT*

*(Prepared with the assistance of the  
National Institute of Public Finance & Policy)*

**Government of India**  
Ministry of Finance  
*Department of Economic Affairs*

*December, 2004*

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## **CENTRAL GOVERNMENT SUBSIDIES IN INDIA**

### **I. INTRODUCTION**

I.1 National Common Minimum Programme (NCMP) of the Government of India pledges: “All subsidies will be targeted sharply at the poor and the truly needy like small and marginal farmers, farm labour and urban poor. A detailed road map for accomplishing this will be unveiled in Parliament within 90 days”. A commitment to this effect was also made by the Finance Minister in his Budget Speech for 2004-05: “I have asked the National Institute of Public Finance and Policy (NIPFP) to prepare a blue print to accomplish these objectives. I expect to place the report before the House in the next session of Parliament”. This report is in pursuance of the above announcement. Its purpose is to outline some policy issues for generating an informed debate on the subject before a roadmap is unveiled and implemented.

I.2 The reforms programme initiated in 1991 aimed at, among other things, reducing fiscal imbalances and improving allocative efficiency by minimizing the distortions in relative prices arising from budgetary and fiscal imprudence. Containing and targeting subsidies constituted an important element of reforms. Subsidies are the converse of indirect taxes and are specific to goods and services. Subsidies are different from transfer payments, which are straight income supplements to individuals, who are normally the poor and the vulnerable. Providing minimum consumption entitlement to the poor by subsidizing the items consumed by them is an extremely important welfare dimension of fiscal policy. Subsidies can correct for the underconsumption of goods with positive externalities. With the social benefits of a particular service or commodity exceeding the aggregate of private benefits to individual consumers, market solutions result in underconsumption and subsidies can make the necessary correction. However, the benefits can be maximised only when the subsidies are transparent, well targeted, and suitably designed for effective implementation without any leakages.

I.3 Pure public goods, such as defence and law and order, are identified by the twin characteristics of non-rivalry and non-excludability. Consumption of such a good by one citizen does not diminish the availability to another, and no citizen is denied access to such a good. The problem arises because there are many other services, for example, roads, that do not clearly fall into exclusive categories of pure public or pure private goods. They have varying degrees of publicness and therefore belong to an intermediate category. Various studies over more than a decade have revealed how the proliferation of subsidies in India is an outcome of undue expansion of Government activities in the provision of goods and services that are not pure public goods. Subsidies result from the Government’s inability to recover its cost adequately in many of these activities.

I.4 Containment and targeting of subsidies, an essential element of fiscal reforms strategy, can serve the following objectives:

- remove economic distortions, thereby improving economic efficiency and growth;
- achieve redistributive objective;
- reduce budgetary burden and release precious resources; and
- improve the environment by realigning the incentive structure to favour environmentally sound practices.

I.5 This report (i) estimates the subsidies provided by the Central Government for 2002-03 and 2003-04; (ii) examines three major types of subsidies, viz., food subsidies, fertiliser subsidies, and petroleum subsidies at the level of Government of India; (iii) suggests possible reforms measures with

respect to these three types of subsidies; and (iv) provides an analysis of the six major centrally sponsored poverty alleviation schemes. This report is based on a detailed research study by the National Institute of Public Finance and Policy (NIPFP)<sup>1</sup>.

I.6 In the three-way classification of government expenditure — general services, social services and economic services — general services cover fiscal and administrative services like justice, jails and police, which are in the nature of pure public goods. Governments, both at the Central and State levels, actively participate also in the provision of a range of non-public goods under the heads of social and economic services where the users are identifiable and user charges can be levied. Budgetary subsidies arise when the budgetary cost of providing a good or a service exceeds the recovery made from the users of the good or service. Subsidies are financed either from tax or non-tax revenue, or result in a deficit. Since some subsidies are less justifiable than others, it is important to categorise services in terms of their desirability vis-à-vis subsidisation.

I.7 The report suggests a three-tier hierarchy of Government social and economic services:

**Merit I** – Elementary education, primary health-care, prevention and control of diseases, social welfare and nutrition, soil and water conservation, ecology, and environment.

**Merit II** – Education (other than elementary), sports and youth services, family welfare, urban development, forestry, agricultural research and education, other agricultural programmes, special programmes for rural development, land reforms, other rural development programmes, special programmes for north-eastern areas, flood control and drainage, non-convention energy, village and small industries, ports and light houses, roads and bridges, inland water transport, atomic energy research, space research, oceanographic research, other scientific research, census surveys and statistics, and meteorology.

**Non-Merit** – All others.

This classification is a more elaborate one than the two-way classification into just merit and non-merit provided in the Discussion Paper presented in May, 1997. Any classification into merit and non-merit is somewhat subjective incorporating social preferences perceived by the analyst. Nevertheless, collective choice has to be guided by a careful analysis of the costs and benefits, as well as the opportunity costs involved in a particular strategy of subsidisation. Once this categorisation is accepted, certain policy conclusions naturally follow. While the merit goods deserve subsidization in varying degrees, Merit I dominates Merit II in terms of desirability of subsidization. Furthermore, the case for subsidizing non-merit goods becomes a tenuous one. Separate analysis of implicit subsidies require a detailed analysis of user charges and recovery rates, which has not been attempted in this report. However, the principles that should govern the determinants of user charges and recovery rates have been enunciated.

I.8 The plan of the report is as follows. Section II presents an overview of Central Government subsidies estimated at 4.18 per cent of GDP in 2003-04. Food, fertilizer and petroleum subsidies, accounting for 95 per cent of explicit subsidies in 2003-04, are discussed in sections III, IV and V, respectively. Of the over 200 Centrally Sponsored Schemes (CSS), six schemes administered by the Ministry of Rural Development account for almost a third of the total allocation under CSS and have major implications for poverty alleviation. Section VI analyses these six schemes in some detail.

## **II. CENTRAL GOVERNMENT SUBSIDIES**

II.1 Total Central Government subsidies, as a proportion of GDP, amounted to 4.25 percent in 2002-03 and 4.18 percent in 2003-04. Such subsidies, after declining from a peak of 4.92 per cent in 1992-93 to 3.49 per cent in 1996-97, increased in recent years because of three reasons. First, subsidies in the petroleum sector, which were off-budget, have been explicitly incorporated in the Central Government's budget from 2002-03. Second, there has been an increase in the share of explicit subsidies. Third, while input costs have gone up, recovery rates have not gone up commensurately.

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<sup>1</sup> Central Budgetary Subsidies in India (December 2004), NIPFP, New Delhi. A similar paper on the basis of a previous NIPFP study was presented to Parliament in May 1997.

## Explicit subsidies

II.2 Only a part of the Central Government subsidies is clearly visible in the Government's budget document. Such explicit subsidies, mainly on food, fertilizer and petroleum, account for about 38 per cent of total Government subsidies, including those 'hidden' in the provision of social and economic services.

II.3 Data from 1991-92 (Table 2.1) reveal that the declining trend in explicit subsidies observed up to 1995-96 was rapidly reversed in the subsequent period. Furthermore, growth in subsidies accelerated further from 2000-01. Food subsidies, which grew rapidly from Rs. 2,450 crore in 1990-91 to Rs. 5,377 crore in 1995-96, were still limited in absolute terms until the mid-1990s. With sustained growth, such subsidies grew in overall significance, and with the higher base, started to dominate overall subsidy behaviour in the subsequent period. The decline in the trend growth of fertiliser subsidy observed since 2000-01 was not enough to neutralise the increasing trend in food subsidies. Explicit subsidies on interest, though modest in absolute terms at around Rs. 207 crore in 2003-04, have been quite large at over Rs. 1,000 crore in 1996-97, 1998-99 and 1999-00. In recent years, petroleum subsidies have been an important item. In 2002-03, when petroleum subsidies were shown explicitly in the Budget for the first time, they were as much as Rs. 5,225 crore.

II.4 Explicit subsidies accounted for about 1.8 per cent and 1.7 per cent of GDP in 2002-03 and 2003-04 respectively. Another measure of the relative size of subsidies is its ratio to net revenues of the Government. Aggregate explicit subsidies relative to net revenue receipts, after falling from its peak in 1990-91 continuously until 1999-00 (except for the year 1998-99), started to rise thereafter.

**Table 2.1: Explicit subsidies in Central Budget**

Years	(Rs. crore)										
	Food	Fertilizer	Petro- leum Subsidy	Grants to NAFED for MIS/PPS	Export	Subsidy on Railways	Interest Subsidy*	Debt Relief to Farmers	Others	Total	Total as %age to GDP
1971-72	47				54		5		34	140	0.3
1981-82	700	381			477	78	102		203	1941	1.2
1990-91	2450	4389			2742	283	379	1502	413	12158	2.1
1991-92	2850	5185			1758	312	316	1425	407	12253	1.9
1992-93	2800	5796			818	353	113	1500	615	11995	1.6
1993-94	5537	4562			665	412	113	500	893	12682	1.5
1994-95	5100	5769			658	420	76	341	568	12932	1.3
1995-96	5377	6735			318	388	34		520	13372	1.1
1996-97	6066	7578			397	468	1222		633	16364	1.2
1997-98	7900	9918			429	536	78		644	19505	1.3
1998-99	9100	11596			574	602	1434		1480	24786	1.4
1999-00	9434	13244			520	685	1371		438	25692	1.3
2000-01	12060	13800			621	812	111		867	28271	1.4
2001-02	17499	12595		353	616	896	210		553	32722	1.4
2002-03	24176	11015	5225	300	628	1046	756		2043	45189	1.8
2003-04 (RE)	25200	11797	6573	156	932	1228	207		776	46869	1.7
2004-05 (BE)	25800	12662	3559	193	902	1362	463		839	45780	1.5
<b>TGR</b>	<b>16.8</b>	<b>19.7</b>					<b>9.7</b>		<b>12.7</b>	<b>17.6</b>	

**Sources:** 1. Budget Documents, Expenditure Budget, Vol. 1 (Various Issues).

2. GDP at market prices -1993-94 series: Economic survey 2003-04, GDP calculated for 2004-05.

### TGR: Trend Growth Rate

**Notes** \* Does not include subsidy to Shipping Development Fund Committee which was treated as grant in the economic classification in the absence of the details available then (upto 1977-78) and states and Union Territories for Janata cloth in the handloom sector which is treated as grant to states in the economic classification. Subsidy figures include subsidy for export promotion and subsidy to railways.

1. From 2001-02 onwards the budget presents subsidy magnitudes with a modified classification.

2. TGR for food, interest subsidy, others and total refers to the period 1971-72 to 2001-02, while for fertilizer the period is from 1976-77 to 2001-02.

## Estimates of total Government subsidies

II.5 Explicit subsidies provide only a limited view of the overall volume of subsidies. In order to have a complete picture, there is a need to estimate the implicit subsidies resulting from unrecovered costs of public provision of goods and services not classified as public goods. The cost of providing a service comprises of three elements: current costs, annualized capital costs (opportunity costs of funds used for capital assets and imputed depreciation), and opportunity cost of funds invested in the form of equity or loan for the service. In cases other than pure public goods, there is scope for cost recovery from the beneficiaries.

II.6 Explicit and implicit subsidies are estimated at Rs. 1,04,913 crore for 2002-03 and Rs. 1,15,824 crore for 2003-04, which are, as a proportion of GDP, equivalent to 4.25 per cent and 4.18 per cent, respectively. As proportions of net revenue receipts, such subsidies are estimated at 45.27 per cent and 44.04 per cent, respectively. Tables 2.2 and 2.3 provide the broad aggregates of the different categories of subsidies. For 2002-03, subsidy is estimated at Rs. 20,306 crore on social services, and at Rs. 84,607 crore on economic services. For 2003-04, the corresponding figures are Rs. 24,475 crore and Rs. 91,350 crore, respectively.

**Table 2.2: Central Government subsidies 2002-03**

	Cost (Rs crore)	Subsidy (Rs crore)	Recovery rate (%)	Subsidies as Percentage of		
				Revenue receipts	GDP	Fiscal deficit
<b>Social services</b>	20805.21	20306.05	2.40	8.76	0.82	14.00
Merit	12177.60	12117.07	0.50	5.23	0.49	8.35
Non -Merit	8627.60	8188.97	5.08	3.53	0.33	5.64
<b>Economic services</b>	142352.42	84606.59	40.57	36.51	3.43	58.32
Merit	24374.90	23700.58	2.77	10.23	0.96	16.34
Non -Merit	117977.52	60906.01	48.37	26.28	2.47	41.98
<b>Total</b>	163157.62	104912.64	35.70	45.27	4.25	72.32
Merit	36552.50	35817.65	2.01	15.46	1.45	24.69
Non-Merit	126605.12	69094.98	45.42	29.81	2.80	47.63

Memo-items (Rs. crores) GDP(2003-04): 24,69,564; Revenue receipts : 2,31,748; Fiscal deficit : 1,45,072

Source: (Basic data): Finance Account of the Union Government and National Income Accounts, CSO

II.7 In 2002-03, merit subsidies accounted for 34 per cent of total subsidies. The share going to non-merit subsidies decreased from 66 per cent in 2002-03 to 58 per cent in 2003-04. Not only in terms of its share in total subsidies, but also in absolute rupee terms, non-merit subsidies declined from Rs.69,095 crore to Rs. 67,250 crore between 2002-03 and 2003-04. This positive development in non-merit subsidies reflected a substantial improvement in cost recovery rate from 45 per cent to 47 per cent in non-merit categories over the two-year period. In 2002-03 and 2003-04, subsidies are estimated to have accounted for 72.32 and 87.68 per cent of fiscal deficit, respectively.

**Table 2.3: Central Government subsidies 2003-04\***

	Cost (Rs crore)	Subsidy (Rs crore)	Recovery rate (%)	Subsidies as percentage of		
				Revenue receipts	GDP	Fiscal deficit
<b>Social services</b>	24971.82	24474.61	1.99	9.30	0.88	18.53
Merit	16208.73	16134.06	0.46	6.13	0.58	12.21
Non-Merit	8763.09	8340.55	4.82	3.17	0.30	6.31
<b>Economic services</b>	151519.42	91349.76	39.71	34.73	3.30	69.15
Merit	32797.14	32439.97	1.09	12.33	1.17	24.56
Non-Merit	118722.28	58909.79	50.38	22.40	2.13	44.59
<b>Total</b>	176491.24	115824.37	34.37	44.04	4.18	87.68
Merit	49005.87	48754.03	0.88	18.47	1.75	36.77
Non-Merit	127485.37	67250.34	47.25	25.57	2.43	50.91

Memo-items (In Rs. crore) GDP(2003-04): 27,72, 194; Revenue receipts: 2,63, 027; Fiscal deficit: 1,32,103

**Source:** Controller General of Accounts, Ministry of Finance, Government of India.

\* Provisional

### An inter-temporal comparison

II.8 Estimates of Central Government subsidies from earlier studies using a broadly similar methodology are available for eight individual years of the sixteen year period between 1987-88 and 2003-04 (Table 2.4). In the aftermath of the implementation of the Fourth Central Pay Commission's award, there was an increase in subsidies between 1987-88 and 1992-93. In the initial years of the post-reform period, subsidies as a proportion of GDP declined almost continuously from 4.92 per cent in 1992-93 to 3.49 per cent in 1996-97. Coinciding with the implementation of the Fifth Pay Commission award, such subsidies increased sharply to 4.59 per cent in 1998-99. A modest declining trend has been observed since 1998-99.

II.9 The absolute increase in Central Government subsidies of Rs. 10,912 crore between 2002-03 and 2003-04 appear to have been from an increase of Rs. 3,154 crore in explicit subsidies, including the impact of greater petroleum subsidies introduced for the first time in 2002-03, and a decline in the average recovery rate on merit goods and services from 2.01 per cent in 2002-03 to 0.88 per cent in 2003-04.

**Table 2.4: A comparison of Government subsidies: selected years**

Year	Subsidies	Revenue receipts	Fiscal deficit	GDP at market prices	Subsidies as percentage of		
					Revenue receipts	GDP	Fiscal deficit
1987-88 (M-R)	16065	37037	27044	354343	43.38	4.53	59.40
1992-93 (Tiwari)	36829	74128	40173	748367	49.68	4.92	91.68
1994-95 (NIPFP)	43089	91083	57703	1012770	47.31	4.25	74.67
1995-96 (NIPFP)	42941	110130	60243	1188012	38.99	3.61	71.28
1996-97 (NIPFP)	47781	126279	66733	1368208	37.84	3.49	71.60
1998-99 (NIPFP)	79828	149485	113348	1740935	53.40	4.59	70.43
2002-03 (NIPFP)	104913	231748	145073	2469564	45.27	4.25	72.32
2003-04 (NIPFP)	115824	263026	132103	2772194	44.04	4.18	87.68

**Sources:** 1. Mundle and Rao (1992), Tiwari, A.C. (1996), Srivastava, D.K., *et.al.* (1997), Srivastava and Amar Nath (2001) Srivastava *et al.* (2003).

2. Revenue Receipts, Fiscal Deficit, and GDP: Central Statistical Organization and Central Budgets.



II.10 A detailed analysis of subsidies in the two most recent years reveals a much higher contribution of social services to the overall growth of subsidies than that of economic services. Subsidies on social services grew by 20.5 per cent between 2002-03 and 2003-04, while the corresponding growth in economic services was 8.0 per cent. In the social sector, two components went up rapidly. Such subsidy on family welfare increased from Rs.774 crore to Rs. 1,240 crore, while such outgoes on sports and youth services increased from Rs. 256 crore to Rs.2,664 crore. Under economic services, there was a sharp increase in petroleum sector subsidy from Rs. 2,703 crore to Rs. 4,196 crore. There was a large increase of 163 per cent in postal subsidies, albeit from a low base.

### Subclassification of merit categories

II.11 A subclassification of merit subsidies reveals that, between 2002-03 and 2003-04, while the share of Merit I subsidies remained static at six per cent of the total subsidies, the share of Merit II subsidies increased from 28 to 36 per cent. While the average recovery rate in Merit I was almost negligible at 0.04 per cent in both the years, in Merit II, there was a decline of the rate from 2.41 percent in 2002-03 and 1.02 percent in 2003-04 (Tables 2.5 and 2.6). With surplus sectors included, the average recovery rate in the non-merit group improved from 45.42 per cent to 47.25 per cent during the same reference period.

**Table 2.5: Classification of subsidies: Merit and Non-Merit categories 2002-03**

(Rs. crore)

Service	Cost			Receipts	Subsidy rate (%)	Recovery
	Current	Capital	Total			
<b>Social services</b>	<b>18321.41</b>	<b>2483.80</b>	<b>20805.21</b>	<b>499.16</b>	<b>20306.05</b>	<b>2.40</b>
Merit I	5258.08	301.67	5559.75	2.56	5557.19	0.05
Merit II	6211.47	406.38	6617.85	57.97	6559.88	0.88
Total Merit	11469.55	708.05	12177.60	60.53	12117.07	0.50
Non-Merit	6851.86	1775.74	8627.60	438.63	8188.97	5.08
<b>Economic services</b>	<b>107314.63</b>	<b>35037.79</b>	<b>142352.42</b>	<b>57745.83</b>	<b>84606.59</b>	<b>40.57</b>
Merit I	535.93	53.185	589.12	0.00	589.12	0.00
Merit II	15979.85	7805.94	23785.79	674.32	23111.47	2.83
Total Merit	16515.78	7859.12	24374.90	674.32	23700.58	2.77
Non-Merit	90798.85	27178.67	117977.52	57071.51	60906.01	48.37
<b>Total Social and economic services</b>	<b>125636.04</b>	<b>37521.59</b>	<b>163157.63</b>	<b>58244.99</b>	<b>104912.64</b>	<b>35.70</b>
Merit I	5794.01	354.85	6148.86	2.56	6146.30	0.04
Merit II	22191.32	8212.32	30403.64	732.29	29671.35	2.41
Total Merit	27985.33	8567.17	36552.50	734.85	35817.65	2.01
Non-Merit	97650.71	28954.41	126605.12	57510.14	69094.98	45.42

Source (Basic data): Finance Account of the Union Government and National Income Accounts, CSO.

**Table 2.6: Classification of subsidies: Merit and Non -Merit categories 2003-04  
(Provisional) (Rs. crore)**

	Cost			Receipts	Subsidy	Recovery rate (%)
	Current	Capital	Total			
<b>Social service</b>	<b>20619.42</b>	<b>4352.41</b>	<b>24971.82</b>	<b>497.21</b>	<b>24474.61</b>	<b>1.99</b>
Merit I	6062.01	315.25	6377.26	2.65	6374.61	0.04
Merit II	6871.65	2959.82	9831.48	72.02	9759.46	0.73
Total merit	12933.66	3275.08	16208.73	74.67	16134.06	0.46
Non-Merit	7685.76	1077.33	8763.09	422.54	8340.55	4.82
<b>Economic Services</b>	<b>113128.96</b>	<b>38141.61</b>	<b>151519.42</b>	<b>60169.66</b>	<b>91349.76</b>	<b>39.71</b>
Merit I	397.94	2.72	400.66	0.00	400.66	0.00
Merit II	26500.65	5895.83	32396.48	357.17	32039.31	1.10
Total Merit	26898.60	5898.54	32797.14	357.17	32439.97	1.09
Non -Merit	86230.36	32243.07	118722.28	59812.49	58909.79	50.38
<b>Total Social and Economic Services</b>	<b>133748.37</b>	<b>42494.02</b>	<b>176491.24</b>	<b>60639.14</b>	<b>115824.37</b>	<b>34.37</b>
Merit I	6459.95	317.97	6777.91	2.65	6775.26	0.04
Merit II	33372.31	8855.65	42227.96	429.19	41798.77	1.02
Total Merit	39832.25	9173.62	49005.87	431.84	48574.03	0.88
Non-Merit	93916.12	33320.40	127485.37	60207.31	67250.34	47.25

Source: Controller General of Accounts, Ministry of Finance, Government of India.

\* Provisional

### Central subsidies according to major heads

II.12 Central Government subsidies by major heads are given in Annex Tables A2.1 and A2.2, while Tables 2.7 and 2.8 give the relative shares of the different heads in total subsidies. Within social services, general education and health together had a share of about 14.1 per cent of total subsidies in 2002-03, which declined to 11.4 per cent in 2003-04.

II.13 In social services, the Centre's participation is limited. Most of the social sector expenditure pertains either to the Union Territories that figure in the Central Budget, or are in the nature of departmental transfers to State governments. Except for information and broadcasting, where the recovery rate was 8.23 per cent in 2002-03, and for broadcasting and publicity, where the recovery rate was 80.39 per cent in 2003-04, in most other instances in the social sector, the recovery rates were close to zero. The overall recovery rate in social services was 2.40 per cent and 1.99 per cent in 2002-03 and 2003-04, respectively. Within economic services, agriculture and allied activities, and industries and minerals accounted for the largest portions of subsidies followed by transport and energy.

**Table 2.7: Relative shares of individual services in total subsidies 2002-03**

Budget Code	Service/Heads	Relative share in total subsidies
	<b>Social services</b>	<b>19.36</b>
2202-01	Elementary education	7.15
2211	Family welfare	1.71
2202	General education	9.15
2220-2221	Information and broadcasting	0.02
2230	Labour and employment	0.59
2210-01-05	Medical	4.93
2210	Medical and public health	1.87
2202-80	Other general education	0.86
2250	Other social services	1.01
2210-06	Public health	0.95
2202-02	Secondary education	0.18
2235-2245	Social welfare and nutrition	0.37
2203-2204	Technical education, sports	2.70
2202-03	University and higher education	0.54
2215	Water supply and sanitation	0.09
	<b>Economic services</b>	<b>80.64</b>
2402-2515	Agriculture, rural development and allied activities	37.24
2801-2810	Energy	4.54
3451-3475	General economic services	4.69
2851-2885	Industry and minerals	18.45
2701-2711	Irrigation and flood control	0.35
3201	Postal	0.15
3401-3435	Science technology and environment	4.98

Source (Basic data): Finance Account of the Union Government and National Income Accounts, CSO.

**Table 2.8: Relative share of individual services in total subsidies 2003-2004 (Provisional)**

Budget Code	Service/Heads	Relative share in total subsidies
	<b>Social services</b>	<b>18.56</b>
2202-01	Elementary education	3.84
2211	Family welfare	0.94
2202	General education	9.96
2220-2221	Information and broadcasting	0.83
2230	Labour and employment	0.60
2210-01-05	Medical	1.42
2210	Medical and public health	1.87
2202-80	Other general education	0.25
2250	Other social services	0.02
2210-06	Public health	0.45
2202-02	Secondary education	1.08
2235-2245	Social welfare and nutrition	0.37
2203-2204	Technical education , sports	1.08
2202-03	University and higher education	1.33
2215	Water supply and sanitation	1.00
	<b>Economic services</b>	<b>81.44</b>
2402-2515	Agriculture,rural development and allied activities	36.59
2801-2810	Energy	3.93
3451-3475	General economic services	1.47
2851-2885	Industry and minerals	14.25
2701-2711	Irrigation and flood control	0.31
3201	Postal	0.30
3401-3435	Science technology and environment	4.27

Source (Basic data): Finance Account of the Union Government and National Income Accounts, CSO.

### **III. FOOD SUBSIDIES**

III.1 Food subsidies in India comprises subsidies to farmers through support prices and purchase operations of the Food Corporation of India (FCI), consumer subsidies through the public distribution system (PDS), and subsidies to FCI to cover all its costs. Food subsidies are mainly on account of paddy and wheat. The rapid increase in food subsidy in recent years is attributable to what is called the 'economic costs' of foodgrains, which include the minimum support prices paid to farmers in the procurement process.

III.2 Government notifies the FCI about the purchase prices of the relevant foodgrains that it has to observe for the coming agricultural marketing season. These prices, known as minimum support prices (MSP) are based on the recommendations of the Commission on Agricultural Costs and Prices (CACP). In practice, the notified purchase prices have been consistently higher than the MSP recommended by the CACP in recent years.

III.3 Periodically, an official committee is set up to recommend the volume of minimum buffer stocks to be maintained at the beginning of each quarter for the purpose of food security. This quantum, together with the amount needed to run the PDS, constitutes the minimum operational stocks of the FCI. However, the purchases of the FCI are open-ended in that it has to accept all the grains that are sold to it at the declared purchase price, and this sometimes results in mounting stocks well beyond the buffer stock norms.

III.4 Government from time to time fixes the central issue prices (CIP) of rice and wheat, which together with transportation and retailers' margins, determines the prices at which consumers receive their entitlements at the fair-price outlet in the PDS system. A common strategy to reduce the burden of food subsidy, without affecting the interests of the poor, is to build in specific features that target the poor. Since June 1997, the extant uniform CIP system has been replaced by a targeted PDS (or TPDS), to provide greater subsidies to the poor. Consumers below the poverty line (BPL) pay a lower price and receive a higher quantum of foodgrains than those above the poverty line (APL). Despite this, there are indications that there are both inclusion and exclusion errors. Besides, there are wide disparities in PDS penetration in different States.

III.5 India is not unique in providing either producer subsidies or consumer subsidies in the foodgrains sector. Several countries, including the developed ones, provide subsidies in the area of agriculture and allied operations at levels that are fairly high compared to that in India. In some developed countries, such subsidies which are mainly for the producers, are several times higher than that in India.

#### **Need for reform: some issues**

III.6 The primary motivation for reform originates in the size of the food subsidy bill, even as a proportion of GDP (Table 3.1). With escalating economic cost and poor targeting, the food subsidy bill has reached a level that is a significant proportion of the total government expenditure. Further, it also restrains the process of crop diversification.

**Table 3.1: Growth of food subsidies in India**

Year	Food subsidy* (Rs crore)	Annual growth (%)	As % of GDP
1990-91	2450	—	0.43
1991-92	2850	16.33	0.44
1992-93	2800	-1.75	0.37
1993-94	5537	97.75	0.64
1994-95	5100	-7.89	0.50
1995-96	5377	5.43	0.45
1996-97	6066	12.81	0.44
1997-98	7900	30.23	0.52
1998-99	9100	15.19	0.52
1999-00	9434	3.67	0.49
2000-01	12060	27.84	0.58
2001-02	17499	45.10	0.77
2002-03	24176	38.16	0.98
2003-04 (RE)	25800	6.72	0.93

\* Other than that on sugar

Source: Budget documents, various issues; Economic Survey, 2003-04 and CSO.

III.7 The main benefits of food subsidies are the resultant food security provided to the citizens, particularly the poor at affordable prices, and incentives to the farmers to keep foodgrains production at a comfortable level. A key aspect of the system is the CIP and its relativity to the non-PDS price faced by those who either do not get the benefit of the PDS, or cannot meet their entire demand from the PDS. Although CIPs have remained unchanged for BPL families both for wheat and rice since 2000-01, cumulatively between 1997-98 and 2003-04, they have risen faster than the consumer price index for agricultural labour (Table 3.2).

**Table 3.2: Relative rise in Issue Prices – 1997-98 to 2003-04**

Year	Consumer Price Index (Agri. Labour)	Cumulative rise (%)	Rise in Issue Price			
			Wheat (BPL)		Rice (BPL)	
			Price* (BPL)	Cumulative rise (%)	Price* (BPL)	Cumulative rise (%)
1997-98	264	—	250	—	350	—
1998-99	293	10.98	250	0.00	350	0.00
1999-00	306	15.91	250	0.00	350	0.00
2000-01	305	15.53	415	66.00	565	61.43
2001-02	309	17.05	415	66.00	565	61.43
2002-03	324	22.73	415	66.00	565	61.43
2003-04	332	25.76	415	66.00	565	61.43

Source: Basic data are from Economic Survey, 2003-04

\* Prices are in Rupees per quintal.

III.8 In recent times, there is the paradox of mounting stocks of foodgrains (Tables 3.3 and 3.4) and reported starvation deaths. Foodstocks reached a peak of 63 million tonnes. in July 2002, more than two-and-a-half times the norm of 24 million tonnes. By April 2004, the stocks were down to 20 million tonnes, still higher than the norm of 16 million tonnes for April. The reduction of the stocks, however, was not brought about by increased PDS offtake. PDS off-take at 20-22 million tonnes was less than the allocation in the last two years.

**Table 3.3: Foodgrain stocks relative to buffer stock norms: wheat**

Beginning of January	Minimum norm	Actual stock	Excess	Excess as % of minimum norm
1992	7.7	5.3	-2.4	-31.2
1993	7.7	3.3	-4.4	-57.1
1994	7.7	10.8	3.1	40.3
1995	7.7	12.9	5.2	67.5
1996	7.7	13.1	5.4	70.1
1997	7.7	7.1	-0.6	-7.8
1998	7.7	6.8	-0.9	-11.7
1999	8.4	12.7	4.3	51.2
2000	8.4	17.2	8.8	104.8
2001	8.4	25	16.6	197.6
2002	8.4	32.4	24	285.7
2003	8.4	28.8	20.4	242.9
2004	8.4	12.7	4.3	51.2

Source: (Basic data): *Economic Survey, 2003-04* and earlier issues

Note: 1998 onwards, figures are provisional

**Table 3.4: Foodgrain stocks relative to buffer stock norms: rice**

Beginning of January	Minimum norm	Actual stock	Excess	Excess as % of minimum norm
1992	7.7	8.6	0.9	11.7
1993	7.7	8.5	0.8	10.4
1994	7.7	11.2	3.5	45.5
1995	7.7	17.4	9.7	126.0
1996	7.7	15.4	7.7	100.0
1997	7.7	12.9	5.2	67.5
1998	7.7	11.5	3.8	49.4
1999	8.4	11.7	3.3	39.3
2000	8.4	14.2	5.8	69.1
2001	8.4	20.7	12.3	146.4
2002	8.4	25.6	17.2	204.8
2003	8.4	19.4	11.0	131.0
2004	8.4	11.7	3.3	39.3

Source: (Basic data): *Economic Survey, 2003-04* and earlier issues

Note: 1998 onwards, figures are provisional

III.9 To run the excessive stocks down, foodgrains were exported by providing exporters foodgrains at near BPL prices. Large stocks of foodgrains raise the subsidy bill through increased handling and carrying costs along with the losses. Besides, withdrawing such large quantities from the market also results in rising open market prices of foodgrains, neutralizing much of the consumer benefits that the subsidy provides. There are severe regional imbalances in the operation of the entire food subsidy scheme, as FCI's purchase operations are mainly confined to five areas – Punjab, Haryana, Western Uttar Pradesh, Andhra Pradesh and now Chhattisgarh. The implication for the present policy of purchase is that farmers of only a few States get the entire farmers' subsidy. A large percentage of these farmers are not even poor.

### The major problems

III.10 A comprehensive analysis of food subsidies in India leads to the conclusion that a large part of the recent problems arise from the relatively high MSPs (Table 3.5). In recent years, with the MSPs announced by the Government at levels higher than those recommended by the CACP, procurement has been high and off-take low, resulting in an inevitable build-up of stocks and a bloated food subsidy bill.

**Table 3.5: Minimum support/procurement price of wheat and paddy**

Crop Year	Wheat		Paddy (Common)	
	MSP (Rs. per quintal)	% Change	MSP (Rs. per quintal)	% Change
1995-96	380	5.6	360	5.9
1996-97	475	25.0	380	5.6
1997-98	510	7.4	415	9.2
1998-99	550	7.8	440	6.0
1999-00	580	5.5	490	11.4
2000-01	610	5.2	510	4.1
2001-02	620	1.6	530	3.9
2002-03	620*	--	530*	--
2003-04	630	1.6	550	3.8

**Source:** Economic Survey, 2003-04

\* One time special drought relief of Rs 10/- and Rs 20/- per quintal of wheat and paddy was given over and above the MSP.

III.11 The declared MSP has had several other negative fallouts. The first is the impact on foodgrain prices. Since the issue price and the purchase price are linked, higher purchase prices result in higher issue prices. Further, with a large part of the marketed surplus in FCI warehouses, the lower supply exerts an upward pressure on prices in the open market. Everyone except those farmers with marketable surpluses of foodgrains are affected adversely. Second, the high MSP combined with open-ended purchases by FCI has compounded the problem for vibrant wholesale trade and storage with lower incidental and storage costs in foodgrains. Third, the exclusive attention to wheat and rice has distorted the cropping pattern of farmers in favor of these two foodgrains alone. The higher water and fertilizer intensity of these two crops in turn has had adverse environmental impacts. Fourth, the concentration of FCI purchases in just two foodgrains and a few States has facilitated tax exportation by some of these States. Although necessities like foodgrains are normally kept outside the tax net, Punjab and Haryana have imposed taxes such as mandi fees on the purchases of foodgrains. With FCI paying such taxes, the tax gets exported to consumers in other States. Inefficiencies in the FCI is also responsible for the subsidy bill. Since all costs of FCI are automatically reimbursed in the extant system, there is little incentive to raise efficiency and reduce costs.

### Policy imperatives

III.12 It is of paramount importance to set more realistic MSPs, particularly with respect to wheat. To

conform to its true nature, the MSP should correspond to the CACP-determined C2 cost, which includes all cash costs and imputed cost of family labor. Since these estimates may vary across regions, a simple average of these costs should be used as the uniform MSP. Further, the purchase operations should not be open-ended. Before every sowing season, procurement targets should be fixed on the basis of norms and a margin of error of about 10 per cent. FCI should suspend purchase operations once targets are achieved. The FCI should have the flexibility of adding to these target quantities in specific markets only in case overall procurements fall short of the target in other markets. A system of price insurance, similar to the Farm Income Insurance Program introduced recently on a pilot basis, may be developed. The scheme should be self-financing and without any subsidy obligation. This can operate in conjunction with the purchase operations to benefit those farmers who miss out on the opportunity of selling their surplus at the support price because of the close-ended purchase operations.

III.13 In the short run, decentralization of procurement may not be a practical option. However, it should be pursued as a long-run objective to usher in greater efficiency in the purchase and distribution operations, and to distribute the benefits of the price support operations more evenly across the country. A useful approach can be to work out the details of the scheme and announce it as soon as possible, allowing States to join in at the time of their choice. Once the farmers of non-participating States appreciate the benefits of their States joining in, the political process should ensure participation of a growing number of States. Eventually, the FCI should act only as a coordinating agency in the matter of procurement with important parameters like procurement prices and aggregate stock requirements provided by the Government of India. In the meantime, the FCI should include a greater number of States in their price-support operations. Further, the tendency for tax exportation needs to be curbed, by appropriate legislation, if necessary. Since it is easy to identify the States that indulge in this practice, it should also be possible to work out differential purchase prices for individual States based on the basic price and maximum allowed tax on the price.

III.14 In order to enforce efficiency, the reimbursement of costs to FCI should be based on normative unit costs and actual quantity involved, instead of reimbursement on actual basis. If some of the functions of the FCI can be carried out by others, it would help to trim the unwieldy size of the FCI. For example, actual delivery of grain may be postponed at the time of purchase, and a small mark-up on the purchase price may be allowed for this purpose. This will reduce the burden of storage on FCI. Active participation by private traders can also relieve the burden on FCI, but necessary institutional changes, including a revision of the concerned laws, are pre-requisites. The responsibility for losses will have to be put squarely on the personnel above a given level, with general cuts in staff payments and perquisites. To balance this, costs reduced below norm-based ones may be retained and distributed among the staff as annual bonus or any other mechanism deemed fit.

III.15 On the distribution side, the main challenges are to improve PDS penetration and reduce leakages. The former is the responsibility of the State governments, and barring moral suasion, the Centre can do little under the present system. One possibility is to introduce food coupons, which has been proposed as a possibility in Budget 2004-05. This method has been tried in several other countries, with mixed results. There is need for caution in its introduction because of unforeseen difficulties in administering it at the massive scale that characterizes PDS. Only the additional subsidy given to the poor can be tried first, while continuing with the exclusive PDS outlets. At present, the additional subsidy for BPL families over and above that for APL is Rs. 195 per quintal on wheat and Rs. 265 per quintal on rice. BPL cardholders can be given coupons worth Rs. 1.95 per kg. of entitlement of wheat and Rs. 2.65 per kg. of their entitlement of rice. The poor would then pay to the PDS outlet the same price as the APL families, but partly with coupons and partly with cash. For the PDS outlet, there will be only one price, but it will be entitled to exchange the coupons collected for cash. Gradually the system could be extended to any foodgrains seller even outside the fair price shops.

III.16 The PDS in its present form has no self-targeting characteristics, except perhaps for the poor



quality of the grains distributed driving away the non-poor. Self-targeting can be brought in by subsidizing coarse grains consumed generally by the poor alone. Two other measures, which may encourage self-targeting are:

- (i) locating of PDS shops in areas where the poor live, and
- (ii) allowing/restricting PDS grain purchases on a weekly basis rather than monthly basis. Often the very poor cannot afford purchase of monthly requirements in one go. On the other hand, restricting bulk purchases will discourage the not-so-needy from PDS outlets.

#### **IV. FERTILIZER SUBSIDIES**

IV.1 The fertilizer subsidy bill has escalated from Rs 500 crore in 1980-81 to more than Rs. 6,000 crore by the mid-nineties, and further to Rs. 12,662 crore (BE) in 2004-05. The Retention Price Scheme (RPS), which is at the root of the growing subsidy, and how much of the benefit of the subsidy is going to farmers rather than the producers of fertilizer have been matters of some debate in the country.

##### **Background**

IV.2 In order to control the fluctuations in fertilizer prices, the Government of India regulates the fertilizer market through the RPS. The RPS was first introduced for nitrogenous fertilizers in November 1977, and extended to complex fertilizers in February 1979. The RPS is essentially a cost-plus approach with some norms for capacity utilization and conversion coefficients. The plant specific retention prices (RP) are revised every quarter so that price increases in plant inputs can be taken into account. The retail price of fertilizers is fixed and is uniform throughout the country. The difference between the retention price (adjusted for freight and dealer's margin) and the price at which the fertilizers are provided to the farmer is paid back to the manufacturer as subsidy. Transportation costs are also compensated on the basis of equated freight computed on a normative basis.

IV.3 It was only in the aftermath of the economic crisis of 1991 that a serious attempt was made to reform RPS to rationalize the fertilizer subsidies. Government decontrolled the import of complex fertilizers such as di-ammonium phosphate (DAP) and muriate of potash (MOP) in 1992, and extended a flat-rate concession on these fertilizers. But, urea imports continue to be restricted and canalized. Thus, flat-rate concessions are provided on imported and indigenous fertilizers, while urea is subsidized under the RPS. Government constituted a high-powered committee to review the existing RPS and suggest a new pricing policy for urea under the chairmanship of C. H. Hanumantha Rao in January 1997. The committee recommended a Normative Referral Price (NRP) system in place of the RPS. In 2000, the Expenditure Reforms Commission (ERC), in its report, suggested phasing out of the unit-wise RPS in stages over a period of six years and its replacement with the group-concession scheme.

IV.4 The new urea pricing policy for the industry suggested by the ERC came into effect from April 1, 2003. The new scheme is to be implemented in three stages: the first from April 1, 2003 to March 31, 2004; the second from April 1, 2004 to March 31, 2006. The modalities of the third stage were to be decided after a review of the first two stages. The Group Retention Pricing (GRP) recommended by the ERC, which had also been recommended by several other committees in the past, was implemented with some modification with effect from April 1, 2003. The second stage with revised norms is currently under implementation.

##### **Magnitude of fertilizer subsidy: the beneficiaries**

IV.5 As a proportion of GDP, fertilizer subsidy, after expanding from 0.23 per cent in the early-1980s to a peak of 0.93 per cent in 1989-90, started to decline. It was 0.77 per cent in 1990-91, and 0.53 per cent in 1993-94. In a subsequent reversal of trend, it reached almost 0.68 per cent in 1999-2000, but has declined since and was estimated at 0.43 per cent in 2003-04.

IV.6 The relative benefit-incidence of the substantial fertilizer subsidy on the farmers and the fertilizer industry has been a matter of some research. The difference between the hypothetical farm-gate price

of imported fertilizers and the actual price paid by the farmers on fertilizer under the RPS, multiplied by the quantity consumed, may be taken as the fertilizer subsidy accruing to the farmers. The balance of the total subsidy on fertilizer after deducting the portion of subsidy accruing to farmers may be taken as the share of subsidy to the fertilizer industry.

IV.7 According to this methodology, the industry share in fertilizer subsidy decreased from an average of 75.46 per cent in the triennium ending (TE) 1983-84 to 24.38 per cent in TE 1992-93, and further to -27.83% in TE 1995-96 (Table 4.1). A negative subsidy in this context indicates that the fertilizer industry was being implicitly taxed in TE 1995-96, with import parity prices so high that the fertilizer industry would have made higher profits if it had sold in the international market rather than in the domestic market under RPS.. This implicit taxation of the fertilizer industry was shortlived, and by TE 1998-99, the farmers' share had declined to 90 per cent, and further to 46 per cent by 1999-2000. Overall, for the entire period of 1981-82 to 2002-03, the average share of the farmers in the fertilizer subsidy was 62 per cent, with the residual 38 per cent accruing to industry.

IV.8 Table A4.1 in the Annex provides estimates of the Nominal Protection Coefficients (NPCs) of fertilizers for the farmers, which is the ratio of the subsidized price paid by the farmers to the hypothetical farmgate price that they would have paid under free-trade. Except in 1986-87, the weighted average of NPCs of N, P and K fertilizers always remained below unity, indicating that the farmers faced a lower (domestic) price than what they would have paid under free trade. The trend in NPCs reveals that the weighted average NPC for the 1980s was higher than that in the 1990s, corroborating that the farmers were indeed subsidized to a greater extent during the 1990s than they were in the 1980s.

#### **Rationalization of fertilizer subsidy and its likely impact on urea industry**

IV.9 How to rationalize fertilizer subsidy primarily revolves around rationalization of pricing of urea, the only fertilizer under the RPS. The impact of any rationalization will depend upon two important factors: (i) efficiency of domestic fertilizer industry and the domestic cost of production, and (ii) the international price of urea.

IV.10 The price of urea per tonne in the international market fluctuates between a low of US\$70 and a high of US\$240, and usually hovers around US\$150. Given the cost structure of the 1990s, about 66, 57 and 41 per cent segment of the urea industry become economically unviable at US\$140, US\$160 and US\$180 per tonne, respectively. The feedstock-wise comparison of retention prices with the import parity price suggests that in the event of opening up of the fertilizer sector to imports, the gas-based plants would survive, whereas the others, particularly the naphtha-based plants, would not.

IV.11 An important reason for the high cost of domestic production is the dominance of naphtha or fuel-oil/low-sulphur heavy stock as feedstock, which are more costly than natural gas. With raw material, power and fuel constituting around 64 per cent of sales revenue of the domestic fertilizer industry, there is need to switch to cheaper options like liquefied natural gas (LNG) to enhance cost-efficiency.

IV.12 About one third of the existing urea production may become economically unviable at an import parity price of US\$180 per tonne, if existing structure of capital costs is taken at its face value. If interest of the industry is to be kept in mind, for the sake of self-sufficiency, an appropriate flat-rate subsidy explicit to industry may have to be given. This will be tantamount to moving to a uniform retention price for the industry as a whole.

#### **Phasing out of fertilizer subsidy and its likely impact on foodgrain production**

IV.13 With more than a third of the total fertilizer subsidy benefitting the fertilizer industry, an obvious question to ask is the impact of phasing out of the fertilizer subsidy on the output of foodgrains. The ERC estimated that an increase in the farm-gate price of urea to import-parity price without an increase in the procurement price of foodgrains would lead to a fall in foodgrains production of about 13.5 million tonnes.

**Table 4.1: Farmers' share in fertilizer subsidy**

Particulars	TE '83-4	TE '86-7	TE '89-90	TE '92-3	TE '95-6	TE 98-9	TE 99-00	TE 00-01	TE 01-02	TE 02-03	1999-00	2000-01	2001-02	2002-03	Average of triennium averages
Per tonne subsidy going to farmers on import parity basis															
Urea (Rs/tonne)	258	590	700	2002	3669	3033	1936	1800	1932	3049	1098	2269	2430	4450	
DAP (Rs/tonne)	-347	243	93	231	-562	1701	2441	2201	1651	1669	2330	1128	1495	2383	
MOP (Rs/tonne)	438	512	1037	1212	786	2639	3516	3857	3913	3815	4042	3885	3811	3750	
Total subsidy on (N+P+K) (Rs crore) <i>(per tonne subsidy X consumption)</i>	165.4	842.4	1761.6	3777.2	6977.9	8702.9	7531.7	7520.9	6820.1	6852.3	6121.8	8126.6	6211.9	6218.5	
Fertilizer subsidy as given in the budget (Rs crore)	674	1916	3318.7	4995	5458.7	9697.3	11586	12497	12830	12085	13244	12651	12595	11009	
Share of budgetary subsidy going to farmers (%)	24.54	43.97	53.08	75.62	127.83	89.75	65.01	60.18	53.26	56.68	46.22	64.24	49.32	56.49	61.87

**Notes:** (i) Average refers to the period 1981-2 to 2000-1.

(ii) TE '83-4 is triennium average ending 1983-4 and so on.

**Source:** Gulati and Narayanan (2003) upto 2001 and updated onwards by NIPFP.

IV.14 Any estimate of the adverse impact of phasing out fertilizer subsidy on foodgrains production is based on the condition that other things remain the same. However, they are unlikely to remain unchanged. First, fertilizer use and application is more dependent on technological and non-price factors than on price or agro-economic variables. These factors include irrigation facilities, cropping pattern, spread of high yielding varieties (HYVs), effective fertilizer distribution and availability of credit. Irrigation is a critical factor determining the use of fertilizers, and has a very significant impact on foodgrains production. Enhancing irrigation would therefore help minimize loss of output from decontrol of fertilizer prices. A reduction in subsidy effected through an increase in urea prices may not translate into lower production through declines in fertilizer use, particularly if the non-price factors are made conducive to fertilizer use. Public investment in irrigation is an effective instrument to promote the use of fertilizers.

IV.15 Second, rationalization of the urea price subsidy would have a significant salutary impact on balanced application of N (nitrogen), P (phosphate) and K (potash). The role of balanced nutrients cannot be overemphasized. It is possible that the increase in foodgrain production due to a favourable mix of fertilizer nutrients could well be in excess of any reduction in foodgrain production because of an increase in urea prices.

IV.16 Third, since the procurement prices are cost-based, it is possible that an increase in procurement prices would also partially offset the negative impact of fertilizer price increase on foodgrains production. With high foodgrains stock with government procurement agencies in recent years, instead of further increases in procurement prices to offset any possible urea price increase, an alternative could be to distribute fertilizers to targeted cultivator households alone (small and marginal) in the form of tradeable coupons.

## V. PETROLEUM SUBSIDIES

V.1 Prior to April 2002, prices of motor spirit, high speed diesel, kerosene for public distribution system (PDS) and domestic liquified petroleum gas (LPG) were decided by the Government and administered through the Oil Coordination Committee (OCC), and there was an elaborate system of cross-subsidisation of PDS kerosene and domestic LPG through higher prices of motor spirit. The subsidies on kerosene alone reached Rs. 8,151 crore in 1999-2000 and started to decline thereafter. Similarly, subsidy on LPG increased up to 2000-01 and started to decline thereafter (Table 5.1). The net result from cross-subsidization of products by petroleum companies, predominantly public sector companies both in the upstream and downstream sectors, constituted the so-called oil-pool surplus or deficit. These balances were carried on the books of the state-owned oil companies, and occasionally settled by Government intervention. Thus, subsidisation in the oil sector was in the nature of a quasi-fiscal operation.

**Table 5.1: Subsidies on major petroleum products**

Product	(Rs.crore)							
	1993-94	1994-95	1995-96	1998-99	1999-00	2000-01	2001-02	2002-03
Kerosene-domestic use (PDS)	3773	3740	4190	5770	8151	7522	5310	3018
HSD	575	430	2180	0	5070	8845	0	0
LPG – packed – domestic	1261	1410	1630	2600	4493	6724	5830	3691
Naphtha/FO/LSHS-fertiliser use	772	850	1200	0	0	0	0	0
Bitumen-packed	126	110	120	0	0	0	0	0
Paraffin wax	89	20	40	0	0	0	0	0
<b>Total</b>	<b>6596</b>	<b>6560</b>	<b>9360</b>	<b>8370</b>	<b>17714</b>	<b>23091</b>	<b>11140</b>	<b>6709</b>

**Source:** Petroleum Statistics, Ministry of Petroleum and Natural Gas, Govt. of India, 2004.

V.2 By a gazette notification in November 1997, Government set a timetable for a phased transition from an administered price regime to a market-determined system with continued subsidization of PDS kerosene and LPG, but on a gradually reducing scale. Subsidies on kerosene and LPG for household use were to be phased down over time to smaller price subsidies of 33.3 per cent and 15 per cent, respectively, by end-March 2002. As part of the energy sector reforms, the prices of many petroleum products, for example, naphtha, furnace oil, low-sulphur heavy stock (LSHS), light diesel oil (LDO) and bitumen, have been liberalized since April, 1998. One important achievement was the linking of high speed diesel prices to international prices and an elimination of subsidy since September 1997 for some time. However, LPG and kerosene, consumed mainly by the domestic sector, continue to be heavily subsidized.

V.3 The phased reduction in subsidies has fallen behind schedule. In March 2002, Government decided that the subsidy on domestic LPG and PDS kerosene would be provided on a specified flat-rate basis from the Consolidated Fund from April 1, 2002. In this situation, Government reimburses the firms for the cost of the subsidy, which is carried as a line item in the budget and called the petroleum subsidy.

#### **Rising petroleum prices and subsidy burden**

V.4 The unprecedented and steep rise in the international prices of crude and petroleum products has led to an increase in the explicit subsidy bill in the Central Government's budget from Rs.5,225 crore in 2002-03 to Rs. 6,573 crore in 2003-04. Moreover, there were reports of underrecoveries by public sector oil marketing companies leading to demand for greater subsidies.

V.5 Retail selling prices of motor spirit and high speed diesel for the consumers are calculated by taking into account:

- (i) Basic price at refinery level on import parity basis,
- (ii) Freight up to depots,
- (iii) Marketing cost and margin,
- (iv) State-specific irrecoverable levies,
- (v) Excise duty,
- (vi) Delivery charges from depot to retail pump outlet,
- (vii) Sales tax and other local levies, and
- (viii) Dealers' commission.

The basic selling prices of motor spirit and high speed diesel are uniform at all refinery locations throughout the country. As per the existing arrangement between the oil marketing companies and refineries, the element at (i) is revised on a fortnightly basis in line with movements in international prices. The marketing costs and margins, dealers' commission, and delivery charges within free delivery zones are also uniform. The prices at various locations vary depending upon the distance from the refinery, rate of sales tax and other local levies.

V.6 Although the oil marketing companies were granted freedom to fix retail selling prices of motor spirit and high speed diesel on a fortnightly basis, in practice, this arrangement has not appeared to have worked in quite a transparent manner. For example, there was no revision of motor spirit and high speed diesel prices between January 1, 2004 and June 16, 2004, while the prices of crude and petroleum products in international markets increased rapidly.

V.7 In order to mitigate the hardship of oil companies, Government worked out a new methodology with effect from August 1, 2004 allowing the oil marketing companies limited freedom to revise the

prices of motor spirit and high speed diesel within a price band. Oil companies are permitted to adjust prices on their own within a band of  $\pm 10$  per cent of the mean of rolling average import-parity price including cost of freight of the previous 12 months and last quarter. When prices move beyond this band, the oil marketing companies have to approach the government to modulate the excise duty rates.

### **Policy options**

V.8 LPG subsidy benefits largely the higher expenditure groups in the urban areas, and may be regressive. With regard to kerosene, on a per capita basis, the urban areas receive a larger subsidy. The limited availability of subsidized kerosene in rural areas biases its use in favour of lighting rather than cooking. Moreover, the kerosene subsidy in rural areas is regressive as higher expenditure groups receive more subsidized kerosene than lower expenditure groups. Kerosene subsidy is prone to misutilisation with about half the subsidized kerosene supplies diverted and never reaching the intended groups. These arguments suggest that the LPG and kerosene subsidies are ineffective in serving the desired objectives. Therefore, the removal of LPG subsidy in a gradual manner, or at least a substantial reduction in the subsidy element, may be recommended. A more cautious approach may be justified in the reduction of kerosene subsidies since about a half of the rural households use kerosene primarily to light their homes.

V.9 Generally, it is assumed that clean fuels like kerosene, that are relatively environment-friendly compared to fuel wood, are not used as they are not affordable because of high prices and low purchasing power of the poor households. However, it is not affordability, but non-availability that may be restricting the use of clean fuels by poor rural households. Thus, the approach that may be sustainable in the long run for the purposes of expanding access and improving the quality of service is to create an open and competitive market with clearly defined and well-enforced rules and regulations for all participants.

V.10 Cash transfer to the poor to compensate for the reduction or elimination of subsidy does not appear to be a suitable strategy for inducing a shift toward hydrocarbons for use as cooking fuels. The urban poor and all rural households may use more wood with enhanced incomes from a modest cash transfer. An alternate approach may be to channel all sales of kerosene through the retail markets, and encourage small distributors of fuels. Coupons may be issued only to poor ration card holders with entitlement to purchase kerosene from a retailer at the subsidized price. This would discourage direct diversion of subsidized kerosene to other sectors.

## **VI. MAJOR CENTRALLY SPONSORED POVERTY ALLEVIATION SCHEMES**

VI.1 Quantifying the subsidy amount incurred on schemes for the poor, like small and marginal farmers, landless labour and the urban poor is an integral part of expenditure management and restructuring. Apart from food, fertilizer and petroleum subsidy, which are directly incurred and administered by the Central Government, there are a myriad other poverty alleviation schemes funded by the Centre but administered through lower level governments. These are Centrally Sponsored Schemes (CSS).

VI.2 Some of the CSS are somewhere between a pure transfer and a more complex subsidy. They are not necessarily commodity-specific, but involve subsidized loans to vulnerable sections for specific purposes or projects benefiting the poor. Out of over 200 CSS, six are in the domain of Rural Development (RD) with the principal objective of poverty alleviation and employment generation. In terms of financial outlays, these six schemes account for Rs. 11,322 crore in the 2004-05 Budget, equivalent to almost a third of the total outlay of Rs. 36,000 crore on CSS. Four major programmes, namely Sampoorna Grameen Rozgar Yojana (SGRY), Swarnajayanti Gram Swarozgar Yojana (SGSY), Pradhan Mantri Gram Sadak Yojana

(PMGSY) and Rural Housing Scheme (RHS) account for 98 per cent of the budgetary allocation on the six CSS of the Ministry of Rural Development in the current financial year.

VI.3 Compared to the physical and financial dimensions of the centrally sponsored poverty alleviation schemes in rural areas, such schemes sponsored by the Centre in urban areas are of much smaller dimension. Swarna Jayanti Shahari Rozgar Yojana (SJSRY) initiated in 1997 has a self-employment component and a wage employment component for the urban poor with a total annual outlay of just about Rs. 100 crore. However, the Ministry of Urban Development administers a number of other schemes for the benefit of the urban poor like National Slum Development Programme (NSDP) and Accelerated Urban Water Supply Programme (AUWSP).

VI.4 The actual releases for the four important CSS of the Ministry of Rural Development at times do not conform to the allocation because of a number of reasons, such as slow progress of implementation in some States, lack of matching funds of the State, non-submission of utilisation certificates, or non-compliance of some of the Central guidelines by the State governments. In case the total release falls far short of the budget outlay for a scheme, the Planning Commission tends to reduce the outlay in the subsequent year. To avoid this, the implementing Ministry usually resorts to reallocation. As a result, the releases under a scheme to some States may exceed the allocation. While some cash-strapped States find it difficult to release their matching share, some others release their share in time to ensure receipt of full allocation from the Centre without default and sometimes even more.

VI.5 The following points are worth noting in the context of an overall assessment of all CSS of the Ministry of Rural Development

- *Central releases as a proportion of Central allocation* have varied from 36 per cent in Goa to 143 per cent in Jammu & Kashmir. Though backward States like Assam, Bihar, Chattisgarh and Uttar Pradesh are entitled to large allocations on the basis of poverty, the actual releases to them were significantly lower. On the other hand, relatively advanced States like Gujarat, Karnataka, Kerala, Punjab and Tamil Nadu received a much higher share of their allocations.
- *Release of funds by a State exceeds the allocation in several States.* One of the reasons for this may be delayed releases of the previous year. On the other hand, in some of the States like Assam, Manipur, Meghalaya, and Nagaland, releases have been less than even 50 per cent of the allocation.
- *Expenditure as a proportion of available funds* indicates that in almost all the States, expenditure is less than a half of the available funds. While only Maharashtra, Rajasthan, and Tamil Nadu could spend more than 80 per cent of the available funds, most of the poorer States could spend less than 60 per cent of the available funds.
- On the basis of the three criteria given above, there is no State, which can be characterised as having performed satisfactorily. The performance of Manipur was the most unsatisfactory according to all the criteria.
- Majority of the backward States, where the CSS of Ministry of Rural Development are most needed, have performed relatively poorly in terms of the three criteria. This includes Assam, Bihar, Jharkhand, and Uttar Pradesh.
- In the past, poor States, unable to release their matching share, have pleaded for doing away with the matching State share system. But in many cases, like in Assam, Bihar, and Manipur, the biggest problem has been the inability to spend even the available funds.

While the releases and expenditures indicate only the inputs for attaining the objectives of the schemes, the success of the schemes needs to be measured in terms of outputs and outcomes.

## **VII. SUBSIDY REFORMS AND CONCLUDING OBSERVATIONS**

VII.1 Three reasons account for the increase in the Central Government subsidies in recent years: (i) moving the petroleum sector to a transparent system of budgetary subsidies and delay in the announced phasing out of the subsidies on PDS kerosene and domestic LPG; (ii) increase in explicit budgetary subsidies on food and fertilizer; and (iii) increase in input costs unaccompanied by any improvement in recovery rates resulting in escalation of implicit subsidies on a variety of economic and social services.

VII.2 Operational inefficiency in the case of provision of any public good or service leads to higher cost of production and greater subsidies. There is a wedge between subsidies that are actually received by the users of the service and subsidies that are borne by the Government. Several types of inefficiencies may accompany the public provision of services. Apart from direct costs like overstaffing, poor maintenance of assets, procedural delays, and delays in taking critical decisions, there are systemic inefficiencies.

VII.3 Subsidy reforms should aim at (i) reducing their volume relative to revenue receipts; (ii) limiting these to only Merit I and Merit II categories while eliminating the non-Merit subsidies; (iii) administering subsidies more directly to the targeted beneficiaries, thereby eliminating input subsidies and focusing more on transfers rather than subsidies; (iv) making these subsidies transparent by showing them explicitly in the budget; and (v) avoiding multiple subsidies to serve the same policy objective.

VII.4 Any subsidy restructuring has to address the issue of food subsidy. For foodgrains, support prices should be kept at the C2 level recommended by the CACP. To contain operational costs, reimbursement of expenses to the FCI should be based on normative unit costs and actual quantities involved. With respect to PDS, the system of dual prices encourages leakages. A uniform price policy with a system of food coupons for the BPL families needs serious consideration. The system may be implemented in phases.

VII.5 In the case of fertilizer, both farmers and fertilizer industry have been subsidized. There is a need for policy measures to reduce subsidy to both the groups. Fertilizer subsidies should be done away with in their present form. Urea imports should be de-canalized and a flat rate subsidy system may be introduced with two different rates of subsidy for domestic producers and importers in the short run, and a single rate in the medium term. Further, given the problem of domestic availability of natural gas, which is the cheapest feedstock, the option of setting up fertilizer plants in countries where natural gas is available in plenty may be considered. The fertilizer produced there can be shared between the host country and India as per the agreement reached. Another reason for the mounting burden of fertilizer subsidy is the lack of a mechanism to increase the farm-gate price of urea at regular intervals. A system that provides for such a periodic increase is required.

VII.6 The domestic LPG and PDS kerosene subsidies seem to be ineffective in serving the desired objectives. Therefore, the domestic LPG subsidy may be gradually reduced or at least substantially restricted, while a more cautious approach should be pursued in the reduction of kerosene subsidies. About a half of the rural households use kerosene primarily to light their homes. Only state-owned oil companies have been permitted to market subsidized domestic LPG and PDS kerosene. This has stifled competition by curtailing the entry of private retailers. A market environment encouraging fair and healthy competition is the most effective way to expand the supply and availability of competitively-priced kerosene and LPG.



VII.7 Social services being associated with strong externalities and scale economies qualify for large subsidies in comparison to economic services. While human development is legitimately a major concern of the welfare state, it may be necessary to reassess policies in this area at the micro level to temper this concern with the equally legitimate concern for the burgeoning public expenditures. This is particularly important if inadequate targeting and leakages are major problems with the subsidies. The economic services can be priced in varying degrees. There is scope for augmenting cost recovery in these services.

VII.8 User charges should be linked to costs. Appropriate upward adjustment of these charges would directly reduce the subsidy bill. Services need to be divided into some broad groups, and broad norms for cost recovery need to be established for each of the groups. A concrete plan would require fixing recovery targets in three phases: (i) short-term (immediate increase); (ii) medium term (in a period of five years); and (iii) long term (ten or fifteen years). The long term targets would need to be determined on the basis of desired or optimum degree of subsidization worked out for broad groups of services. In the short term, the target should be to recover a specified portion of the variable costs.

VII.9 High costs of service provision and low or negligible recoveries through user charges are the two critical factors leading to high subsidies. Costs need to be reduced, by eliminating producer inefficiencies. Subsidy reforms need to follow a scheme of priorities by focusing on selected sectors, which yield maximum results. A scheme focusing on services in which there is considerable scope for higher recovery in the non-Merit category may constitute the first step.

**Table A 2.1: Central Government subsidies 2002-03**

							(Rs crore)
		Cost			Receipts	Subsidy	Recovery rate (%)
Social and Economic Services		Current	Capital	Total			
Budget-code							
<b>Social Services</b>		<b>18321.4</b>	<b>2483.8</b>	<b>20805.2</b>	<b>499.2</b>	<b>20306.1</b>	<b>2.4</b>
2202	General Education	7474.7	32.0	7506.7	3.5	7503.2	0.0
2202-01	Elementary Education	4090.7	12.2	4103.0	0.2	4102.8	0.0
2211	Family Welfare	786.7	3.1	789.7	15.8	774.0	2.0
2216	Housing	2223.1	755.8	2978.9	150.5	2828.4	5.1
2220	Information and Broadcasting	1164.6	821.6	1986.2	163.5	1822.7	8.2
2230	Labour and Employment	726.6	0.0	726.6	4.2	722.4	0.6
05-01-10	Medical	1636.5	96.2	1732.7	81.4	1651.4	4.7
2210	Medical and Public Health	2253.3	124.8	2378.0	102.7	2275.3	4.3
05-04-02	Other General Education	308.0	3.4	311.4	1.3	310.1	0.4
2250	Other Social services	8.2	12.5	20.7	0.1	20.6	0.2
2210-06	Public Health	299.8	-9.1	290.7	1.3	289.4	0.4
2202-02	Secondary Education	1292.7	8.5	1301.2	0.5	1300.7	0.0
2235-2236	Social welfare and	506.6	32.4	538.9	2.4	536.6	0.4
2203-2204-	Technical Education,	2033.0	100.3	2133.3	38.6	2094.7	1.8
2205	Sports, art and culture						
2202-03	University and Higher Education	1783.4	7.9	1791.2	1.6	1789.7	0.1
2217	Urban Development	7.8	283.2	291.0	0.3	290.8	0.1
2215	Water supply and	985.4	76.6	1062.0	1.6	1060.4	0.1
2225	Welfare of Scs, STs and other BCs	151.5	241.6	393.1	0.0	393.1	0.0
<b>Economic services</b>		<b>107314.6</b>	<b>35037.8</b>	<b>142352.4</b>	<b>57745.8</b>	<b>84606.6</b>	<b>40.6</b>
2402-2515	Agricultural, Rural Development and Allied activities	35402.8	4107.3	39510.1	437.9	39072.2	1.1
2801	Energy	4017.9	6652.2	10670.2	4405.0	6265.2	41.3
3451-3475	General Economic services	5292.0	219.3	5511.3	593.2	4918.1	10.8
2851-2885	Industry and Minerals	13166.7	10319.4	23486.1	2439.6	21046.5	10.4
2701-2702-	Irrigation and Flood control	334.2	55.1	389.3	19.0	370.3	4.9
2711							
2802	Petroleum	5225.5	516.3	5741.8	3038.6	2703.2	52.9
3201	Postal	4001.4	161.5	4162.9	4009.7	153.3	96.3
3401-3425	Science Technology and Environment	4645.9	694.9	5340.7	112.5	5228.2	2.1
3001-3075	Transport surplus sectors	4761.9	5853.7	10615.6	560.1	10055.5	5.3
3225	Satellite and	3403.4	1013.3	4416.8	5541.0	-1124.2	125.5
3001-3003	Railways	29968.5	7408.2	37376.7	42741.5	-5364.8	114.4

Source (Basic data): Finance Account of the Union Government and National Income Accounts, CSO.

**Table A 2.2: Central Government subsidies 2003-04 (Provisional)**

Social and Economic Services		(Rs.crore)					
		Cost			Receipts	Subsidy	Recovery rate (%)
		Current	Capital	Total			
<b>Budget-code</b>	<b>Social services</b>	<b>20619.4</b>	<b>4352.4</b>	<b>24971.8</b>	<b>497.2</b>	<b>24474.6</b>	<b>2.0</b>
2202	General education	8554.9	40.5	8595.3	4.4	8591.0	0.1
2221	Broadcasting	1001.5	54.3	1055.8	4.3	1051.5	0.4
2202-01	Elementary education	5064.5	12.4	5076.9	0.2	5076.7	0.0
2216	Housing	2456.1	790.2	3246.3	124.8	3121.5	3.8
2220	Information and Publicity	207.0	20.7	227.7	183.1	44.7	80.4
2230	Labour and Employment	796.1	1.1	797.2	5.4	791.8	0.7
05-01-10	Medical	1258.2	0.2	1258.5	18.2	1240.3	1.4
2210	Medical and Public health	2460.9	131.1	2592.0	103.4	2488.6	4.0
2202-80	Other General education	69.8	3.3	73.1	1.0	72.1	1.4
2250	Other social services	9.4	13.9	23.3	0.0	23.3	0.0
2210-06	Public health	611.8	26.9	638.7	26.9	611.8	4.2
2202-02	Secondary Education	1405.0	16.7	1421.6	0.5	1421.1	0.0
2235-2245	Social welfare and Nutrition	449.0	38.6	487.5	2.4	485.1	0.5
2203-2205	Technical Education, sports Art and culture	2117.0	2493.7	4610.7	49.1	4561.7	1.1
2202-03	University and Higher Education	2015.7	8.1	2023.8	2.7	2021.1	0.1
2217	Urban Development	6.1	437.8	443.8	0.6	443.3	0.1
2215	Water Supply and sanitation	1237.0	79.1	1316.1	1.6	1314.5	0.1
2225	Welfare of SCs. STS and other BCs	66.4	251.2	317.5	0.0	317.5	0.0
	<b>Economic services</b>	<b>113129.0</b>	<b>38141.6</b>	<b>151519.4</b>	<b>60169.7</b>	<b>91349.8</b>	<b>39.7</b>
2402-2553	Agricultural Rural development and Allied activities	47199.2	3820.7	51020.0	440.8	50579.2	0.9
3053	Civil aviation	245.5	140.3	385.9	5.1	380.8	1.3
2803	Coal and Lignite	192.8	1441.4	1634.2	54.0	1580.2	3.3
3451-3475	General economic services	2413.9	347.2	2761.1	821.9	1939.2	29.8
2851-2885	Industry and Minerals	17753.7	13671.2	31424.9	1892.7	29532.2	6.0
3056	Inland water Transport	5.4	29.0	34.4	0.4	33.9	1.3
2701-2711	Irrigation and Flood control	355.3	59.4	414.7	9.6	405.2	2.3
2810	Non -conventional source of energy	248.9	101.6	350.4	38.3	312.1	10.9
3075	Other transport	25.1	80.4	105.5	63.0	42.5	59.7
2802	Petroleum	6901.5	493.4	7394.8	3198.8	4196.1	43.3
3201	Postal	4520.3	139.0	4659.3	4256.9	402.3	91.4
2801	Power	3042.8	6287.7	9330.5	4141.8	5188.7	44.4
3055	Road Transport	111.5	149.1	260.6	70.0	190.6	26.9
3054	Roads and Bridges	3416.2	3033.8	6449.9	86.5	6363.4	1.3
3401-3435	Science Technology and Environment	5025.9	737.8	5763.8	131.7	5632.1	2.3
3052	Shipping	161.8	300.6	462.4	46.7	415.6	10.1
	Surplus sectors	3447.6	369.9	3817.5	9920.6	-6103.2	259.9
	Port and light house	391.3	282.7	674.0	699.0	-25.0	103.7
	Total communications	3056.3	87.2	3143.5	9221.6	-6078.2	293.4
	Industries General	165.3	218.0	383.3	2864.7	-2481.4	747.4
	Railways	21403.2	7087.4	28490.6	44911.5	-16420.9	157.6

Source: Controller General of Accounts, Ministry of Finance, Government of India.

**Table A4.1: Average economic subsidy (in Rs/tonne) on fertilizers and Nominal Protection Coefficients**

<b>Particulars</b>	<b>1981-82</b>	<b>1982-83</b>	<b>1983-84</b>	<b>1984-85</b>	<b>1985-86</b>	<b>1986-87</b>	<b>1987-88</b>	<b>1988-89</b>	<b>1989-90</b>	<b>1990-91</b>	<b>1991-92</b>
<i>Urea (N) (46% nitrogen)</i>											
1. c.i.f. price of urea (on ship)	1743.59	1379.74	1396.04	2000.00	2157.00	1350.00	1589.66	1940.80	2362.80	3193.85	3664.98
2. Pool handling expenses	791.36	1063.89	878.10	882.55	956.88	782.59	927.38	951.90	976.42	1000.94	1025.46
3. Dealer's margin	120.00	120.00	130.00	130.00	130.00	130.00	130.00	133.27	136.70	140.13	143.56
4. Domestic price	2350.00	2350.00	2150.00	2150.00	2250.00	2350.00	2350.00	2350.00	2350.00	2350.00	3060.00
5. Subsidy to the farmer (1+2+3-4)	304.95	213.63	254.14	862.55	993.88	-87.41	297.04	675.97	1125.92	1984.92	1774.00
<i>Diammonium phosphate P (DAP, 18-46-0)</i>											
1. c.i.f. price of DAP (on ship)	2240.15	2010.48	2045.48	2550.00	2487.00	2500.00	2650.95	3532.64	3787.10	3804.40	4087.16
2. Pool handling expenses	791.36	1063.89	878.10	1041.54	1163.36	840.97	996.55	1061.20	994.67	1000.94	1025.46
3. Dealer's margin	145.00	145.00	190.00	190.00	190.00	190.00	190.00	190.00	190.00	190.18	194.84
4. Domestic price	3600.00	3600.00	3350.00	3350.00	3475.00	3600.00	3600.00	3600.00	3600.00	3600.00	5040.00
5. Subsidy to the farmer (1+2+3-4)	-423.49	-380.63	-236.42	431.54	365.36	-69.03	237.50	1183.84	1371.77	1395.52	267.46
<i>Muriate of potash K (60%) (K20)</i>											
1. c.i.f. price of MOP (on ship)	1716.00	933.24	998.94	1200.00	1347.00	1185.00	1200.57	1832.20	2149.13	2391.18	3004.18
2. Pool handling expenses	387.53	400.96	401.97	401.92	416.02	450.99	515.04	514.99	515.00	530.50	543.49
3. Dealer's margin	90.00	90.00	95.00	95.00	95.00	95.00	95.00	95.00	95.00	95.49	97.83
4. Domestic price	1300.00	1300.00	1200.00	1200.00	1250.00	1300.00	1300.00	1300.00	1300.00	1300.00	1700.00
5. Subsidy to the farmer (1+2+3-4)	893.53	124.20	295.91	496.92	608.02	430.99	510.61	1142.19	1459.13	1717.17	1945.50
<b>NOMINAL PROTECTION COEFFICIENTS</b>											
N	0.89	0.92	0.89	0.71	0.69	1.04	0.89	0.78	0.68	0.54	0.63
P	1.13	1.12	1.08	0.89	0.90	1.02	0.94	0.75	0.72	0.72	0.95
K	0.59	0.91	0.80	0.71	0.67	0.75	0.72	0.53	0.47	0.43	0.47
Weighted average NPCs	0.91	0.96	0.92	0.75	0.74	1.01	0.88	0.75	0.67	0.58	0.70

**Table A4.1: Average economic subsidy (in Rs/tonne) on fertilizers and Nominal Protection Coefficients (contd.)**

Particulars	1992-93	1993-94	1994-95	1995-96	1996-97	1997-98	1998-99	1999-00	2000-01	2001-02	2002-03
<i>Urea (N) (46% nitrogen)</i>											
1. c.i.f. price of urea (on ship)	3809.38	3791.37	6105.39	6976.98	6521.57	4980.11	4337.52	3741.12	5511.26	5901.89	7921.80
2. Pool handling expenses	1050.00	1000.00	1010.00	1090.00	1190.00	1190.00	1190.00	1190.00	1191.00	1191.00	1191.00
3. Dealer's margin	147.00	140.00	141.00	152.60	166.00	166.60	166.60	166.60	166.74	166.74	166.74
4. Domestic price	2760.00	2760.00	3320.00	3320.00	3490.00	3660.00	3660.00	4000.00	4600.00	4830.00	4830.00
5. Subsidy to the farmer (1+2+3-4)	2246.38	2171.37	3936.39	4899.58	4387.57	2676.71	2034.12	1097.72	2269.00	2429.63	4449.54
<i>Diammonium phosphate P (DAP, 18-46-0)</i>											
1. c.i.f. price of DAP (on ship)	4430.05	4269.76	6631.34	7771.41	7087.65	8730.06	10029.73	9214.24	8610.49	8978.02	10315.35
2. Pool handling expenses	1050.00	1000.00	1010.00	1090.00	1190.00	1190.00	1190.00	1190.00	1191.00	1191.00	1191.00
3. Dealer's margin	199.50	190.00	191.90	207.10	226.10	226.10	226.10	226.10	226.29	226.29	226.29
4. Domestic price	6650.00	6600.00	7753.25	9693.75	8394.00	8300.00	8300.00	8300.00	8900.00	8900.00	9350.00
5. Subsidy to the farmer (1+2+3-4)	-970.45	-1140.24	79.99	-625.24	109.75	1846.16	3145.83	2330.34	1127.78	1495.31	2382.64
<i>Muriate of potash K (60%) (K20)</i>											
1. c.i.f. price of MOP (on ship)	3817.05	3783.53	3970.19	4543.49	4787.95	5816.32	6600.94	6997.28	7395.38	7320.72	7460.10
2. Pool handling expenses	556.50	530.00	535.50	577.70	630.70	630.70	630.70	630.70	631.23	631.23	631.23
3. Dealer's margin	100.17	95.40	96.35	103.99	113.53	113.53	113.53	113.53	113.62	113.62	113.62
4. Domestic price	4500.00	3800.00	3786.50	4290.50	4122.00	3700.00	3700.00	3700.00	4255.00	4255.00	4455.00
5. Subsidy to the farmer (1+2+3-4)	-26.28	608.93	815.54	934.68	1410.18	2860.55	3645.17	4041.51	3885.23	3810.57	3749.95
<b>NOMINAL PROTECTION COEFFICIENTS</b>											
N	0.55	0.56	0.46	0.40	0.44	0.58	0.64	0.78	0.67	0.67	0.52
P	1.17	1.21	0.99	1.07	0.99	0.82	0.73	0.78	0.89	0.86	0.80
K	1.01	0.86	0.82	0.82	0.75	0.56	0.50	0.48	0.52	0.53	0.54
Weighted average NPCs	0.72	0.72	0.60	0.58	0.58	0.63	0.65	0.76	0.71	0.70	0.59

Source: Gulati and Narayanan (2003) upto 2001 and updated onwards by NIPFP.