

CHAPTER V

PLANNING

A. COAL SECTOR

5.1 History of coal mining in India dates back to 1744, when coal was first mined in the Raniganj coalfield in West Bengal. However, coal production in the pre-independence era and in the first two decades after independence was very slow. Annual production was stagnant at 70 million tonnes during late sixties and early seventies and was inadequate to meet growing demand of coal for generation of power and for other industrial and metallurgical purposes. The oil crisis of early seventies spurred the Government into taking a hard look at the coal sector. Recognizing the importance of coal, a primary source of energy in the national economy and the massive investment needed to meet the huge demand, coal industry in India was nationalized in phases in 1972 and 1973. The primary goal for nationalized coal industry was to ensure a scientific approach to exploration and exploitation of coal deposits with due attention to safety, conservation and environmental aspects while accelerating the production level through substantial investment so as to reduce India's dependence on oil.

Ninth Five Year Plan Period (1997-2002)

Coal Demand

5.2 At the time of formulation of 9th Five Year Plan, Working Group on Coal & Lignite, constituted by Planning Commission had assessed country's raw coal demand in 2001-02, the terminal year of the 9th Plan, at 405.00 million tonnes. To meet this demand, Working Group on Coal and Lignite had indicated an indigenous coal production of 359.60 million tonnes (CIL=303.00 m.t. SCCL=36 m.t. and Others=20.70 m.t.) for the same period. However the total availability of indigenous coal as projected by Planning Commission was 370.60 out of which Planning Commission had given a target of 314.00 m.t. for CIL but this was not accepted by the Ministry of Coal due to various constraints. Therefore, overall production by the terminal year of 9th Five Year Plan was projected at 359.60 m.t. At the time of Mid-Term Appraisal the target of production for the terminal year of 9th Five Year Plan i.e. 2001-02 was fixed at 328.86 million tonnes.

5.3 Against the projection of 9th Plan, year-wise demand assessed by Planning Commission for each of the year is given below:-

(million tonnes)

Year	Demand
1997-98	323.40 (6.80)
1998-99	325.38 (7.50)
1999-00	311.83 (3.00)
2000-01	333.85 (5.02)
2001-02	354.29 (4.83)

Figures in bracket represent middlings.

Production

5.4 The target for the first year of 9th Five Year Plan (1997-98) was fixed at 297.45 million tonnes. The total production during the year was 295.80 million tonnes i.e. 99.45% of the targeted figures. The target for coal production during the year 1998-99 was fixed at 306.50 million tonnes. The projected target for 1998-99 was kept 2.85% higher over the of 1997-98 and the production recorded during the same period was 292.27 million tonnes, which works out to be 95.35%. The total production target for the year 1999-2000 was 298.90 m.t. And the total production during the same period was recorded at 299.97 million tonnes, which works out to be 100.36%. The projected figure of coal production for the year 2000-01 was fixed at 308.07 million tonnes and against this target the total production for the year 2000-01 has been 313.64 million tonnes, which works out to 101.80%. The target for the year 2001-02 was fixed at 322.73 million tonnes and against this target, the production recorded was 327.64 million tonnes which works out to be 101.52% of the targeted figure.

COAL PRODUCTION DURING ANNUAL PLANS OF 9TH FIVE YEAR PLANS

(in million tonnes)

Company	1997-98		1998-99		1999-2000		2000-01		2001-02	
	Target	Actual	Target	Actual	Target	Actual	Target	Actual	Target	Actual
ECL	32.50	27.42	32.00	27.16	29.00	25.12	28.00	28.03	28.50	28.50
BCCL	30.70	30.92	32.30	27.17	27.50	27.90	29.50	25.97	30.00	25.25
CCL	33.50	33.08	35.00	32.18	33.50	32.40	34.00	31.75	36.00	33.81
NCL	37.00	37.12	37.00	36.52	37.50	38.43	39.00	41.40	41.50	42.46
WCL	30.50	32.52	32.00	31.75	32.00	33.86	33.00	35.20	35.00	37.01
SECL	55.50	56.63	58.70	57.56	58.00	58.75	60.00	60.33	63.00	64.12
MCL	39.50	42.17	41.00	43.51	41.00	43.55	43.00	44.80	44.50	47.81
NEC	00.80	00.69	00.85	00.64	00.60	00.57	00.50	00.66	00.50	00.64
CIL	260.00	260.55	268.85	256.48	259.10	260.58	267.00	268.14	279.00	279.65
SCCL	31.00	28.94	31.00	27.33	31.00	29.56	31.67	30.27	32.38	30.81
Others	6.45	6.31	6.65	8.46	8.80	9.84	9.40	*15.23	11.35	*17.18
Total	297.45	295.80	306.50	292.27	298.90	299.97	308.07	313.64	322.73	327.64

* indicates including Meghalaya.

5.5 The productivity measured as output per man shift (OMS) (actual) in tonnes. The actual figures for the 9th Five Year Plan i.e. 1997-98 to 2001-02 are given below.

(figures in tonnes)

Year	Coal India Limited			Singareni Collieries Company Ltd.		
	UG	OC	Overall	UG	OC	Overall
1997-98	0.57	5.07	1.93	0.76	7.01	1.45
1998-99	0.59	5.52	2.03	0.75	3.92	1.31
1999-2000	0.61	5.46	2.11	0.75	4.42	1.42
2000-01	0.63	5.92	2.30	0.79	5.94	1.50
2001-02	0.64	6.08	2.45	0.85	6.74	1.66

Ninth Five Year Plan Outlay

5.6 The total plan outlay assessed by the Working Group on Coal and Lignite for 9th Five year Plan and reassessed by Ministry of Coal are given below:-

(Rs. In Crores)

Name of Company/Scheme	Allocation approved by N.D.C.	Allocation approved by P.C. during Mid-Term Appraisal
Coal India Limited	12401.00	12000.00
Singareni Collieries Company Limited	2235.00	1665.32
Neyveli Lignite Corp. Ltd.	4448.16	4570.00
Regional Exploration	130.00	140.00
Science & Technology	80.00	80.00
Environmental Measures Subsidence Control	79.00	79.00
Detailed Drilling	9.38	91.18
Rehabilitation & Control of fire and subsidence in Jharia & Raniganj coalfields	50.00	50.00
Research & Development Centre	1.00	1.00
Regulatory Framework Review Project	8.05	8.05
Voluntary Retirement Scheme funded through Ministry of Coal	----	459.19
Total	19441.59	19143.74
Voluntary Retirement Schemes funded through National Renewal Fund	400.00	240.00
Grand Total	19841.59	19383.74

Plan Expenditure

5.7 BE and Actual (Provisional) for each year of the Ninth Five Year Plan are given below:

(Rs. In crores)

Year	CIL	SCCL	S&T/R.E./EMSC/ D.D. R.F.R.P./ R.P.J.R./V.R.S./N.E.Region
1997-98(Actual)	1824.55	208.48	30.30
1998-99(Actual)	1831.97	206.09	44.80
1999-00(Actual)	2769.66	145.20	56.00
2000-01	1059.32	194.10	281.81
2001-02 (Actual Provisional)	1146.69	181.92	401.28

NEYVELI LIGNITE CORPORATION

Ninth Five Year Plan 1997-2002

5.8 The target and actual figures during the 9th Five Year Plan i.e. 1997-98 to 2001-02 of lignite production, power generation, urea and coke are given below:

Year	Lignite (million tonnes)	Power Gen. (million Units)	Urea (tonnes)	Coke (tonnes)
1997-98 Target	16.50	11,365.00	124,000	240,000
Actual	18.10	13,402.27	102,690	233,963
1998-99 Target	17.50	11,715.00	105,000	240,000
Actual	18.17	13,340.00	67,834	205,269
99-00 Target	17.50	12,431.00	96,000	240,000
Actual	17.55	13,304.74	17,204	122,900
2000-01 Target	17.50	12,421.00	137,000	240,000
Actual	18.17	14,673.18	97,851	86,426
2001-02 Target	17.50	13,083.00	150,000	160,000
Actual	18.37	14,451.32	61,950	*11,965

* Leco (4383 tonnes), Fine (7582 tonnes)

Expenditure

5.9 Budget, Revised Estimates and Actual for the each year of 9th Five Year Plan i.e. 1997-98 to 2001-02 are as under:-

(Rs. In crores)

Year	BE	RE	Actual (Prov.)
1997-98	584.77	327.50	168.28
1998-99	1112.05	750.00	581.93
1999-2000	872.62	821.86	614.03
2000-01	1168.45	1125.28	1061.02
2001-02	988.81	896.76	670.55

TENTH FIVE YEAR PLAN PERIOD (2002-07)

Coal Demand

5.10 Working Group on Coal & Lignite for formulation of Tenth Five Year Plan, constituted by Planning Commission has assessed country's raw coal demand in 2006-07, the terminal year of the 10th Plan at 453.29 million tonnes (including of middlings). To meet this demand, Working Group on Coal & Lignite for formulation of Tenth Five Year Plan has indicated an indigenous coal production of 399.73 million tonnes (CIL=350.00 m.t. SCCL=36.13 m.t. and Others=13.60 m.t. including Meghalaya Coal). However Planning Commission has now finalized an indigenous coal production of 405.00 million tonnes (CIL=350.00 m.t. SCCL=36.13 m.t. and Others=18.87 m.t. including Meghalaya Coal) for the same period.

5.11 The demand for the terminal year of the Xth Five Year Plan, as projected by the Working Group is shown in the table below.-

Coal Demand

(In million tonnes)

Sectors	IX Plan 2001-02 Revised Target as per MTA	IX Plan 2001-02 Provisional achievement	X Plan 2006-07 (Projection as per WG)	X Plan 2006-07 (Finalized in consultation with Planning Commission)
Coking Coal				
• Steel	32.21	16.79	37.66	
• Coke Oven	1.91	0.83	2.00	
Sub Total Coking	34.12	17.62	39.66	37.21
Non Coking Coal				
• Power (Utilities)	241.54 (2.78)	244.58 (1.86)	315.44	317.14 (3.74)
• Power (Captive)	21.11 (1.35)	17.41 (1.36)	28.31	28.26 (1.40)
• Cement	17.00	11.85	21.68	24.56
• Fertilizer	3.50	3.20	4.18	
• Others	34.52 (0.70)	34.43 (0.28)	41.52	49.15 (0.10)
• Colliery Consumption	2.50	1.82	2.50	
Sub Total NC	320.17 (4.83)	313.29 (3.50)	413.63	423.29 (5.24)
Grand Total	354.29 (4.83)	330.91 (3.50)	*453.29	460.50 (5.24)

Note : (*) Inclusive of middling

- I Washery middlings are shown in brackets.
- II Steel demand includes imported coking coal of 12.25 million tonnes (Actual) in 2000-2001 and projected 15.05 million tonnes in 2001-2002 and 19.98 million tonnes in 2006-2007.
- III. Power (utilities) consumption/demand includes imported coal of 2.48 million tonnes (Actual) in 2000-01 and projected 3.73 million tonnes in 2006-07.
- IV. Cement Sector consumption/demand includes imported coal of 5 million tonnes (Actual) in 2000-01 and projected 3.276 million tonnes in 2006-07 excluding coal requirement of mini cement plants.

5.12 Against the projection of 10th Plan, the demands for the year 2002-03 and 2003-04 assessed by Planning Commission are given below:-

(million tonnes)

Year	Demand
2002-03	363.30 (4.925)
2003-04	372.40 (4.29)

Figures in bracket represent middlings.

Production

5.13 The target at RE stage and actual up to the month of December, 02 for the first year of 10th Five Year Plan (2002-03) and targeted figure for the year 2003-04 is given below:

(in million tonne)

Company	2002-03		2003-04
	Target(RE)	Actual (prov.) up to Dec.,02	Target
ECL	28.00	18.180	29.00
BCCL	25.50	16.498	27.50
CCL	34.25	25.155	35.50
NCL	45.00	32.470	46.50
WCL	37.20	27.951	37.25
SECL	66.50	47.498	69.00
MCL	49.20	37.534	53.10
NEC	00.65	0.441	00.65
CIL	286.30	205.727	298.50
SCCL	32.50	24.755	33.50
Others	17.00	9.273	18.05
Total	335.80	239.755*	350.05

- excluding Meghalaya Coal Production

5.14 The all India coal demand assessed for the year 2003-04 is 372.40 (4.29 of middlings) million tonnes. Against this demand, availability of coal in 2003-04 is indicated as under:

(In million tonnes)

Coal India Limited	298.50
Singareni Collieries Company Ltd	33.50
Others*	18.05
Stock liquidation by CIL	1.35
Total	351.40

* IISCO/DVC/J&K/BSMDCL/TISCO/Captive mining/Meghalaya

5.15 Thus there would be a gap of 21.00 million tonnes between demand and supply and this is likely to be met through import mainly by Steel, Power and Cement sectors.

Output Per Man Shift (OMS)

5.16 The targeted figure at BE & RE stage and actuals (provisional) up to the month of Oct., 02 of productivity, measured as output per man-shift, for the year 2002-03 and BE figure for the year 2003-04 are given below:

(figures in tonnes)

Year	Coal India Limited			Singareni Collieries Company Ltd.		
	UG	OC	Overall	UG	OC	Overall
2002-03(BE)	0.69	6.86	2.58	0.84	7.98	1.66
2002-03(RE)	0.67	6.53	2.58	0.86	7.88	1.75
2002-03 (Actuals up to Oct., 02)	0.66	6.09	2.50	0.82	6.93	1.77
2003-04(BE)	0.69	6.96	2.71	0.94	9.11	1.88

TENTH FIVE YEAR PLAN OUTLAY

5.17 The total plan outlay assessed by the Working Group on Coal and Lignite for 10th Five year Plan and tentatively finalized by Planning Commission are given below:-

(Rs. In Crores)

Name of Company/Scheme	Allocation projected by Working Group	Allocation tentatively finalized by Planning Commission
Coal India Limited	14310.00	14310.00
Singareni Collieries Company Limited	2113.00	2113.00
Neyveli Lignite Corp. Ltd.	9145.00	*14133.48
Regional Exploration	435.00	275.80
Science & Technology	100.00	100.00
Environmental Measures Subsidence Control	163.00	163.00
Detailed Drilling	---	70.66
Rehabilitation & Control of fire and subsidence in Jharia & Raniganj coalfields	---	---
Research & Development Centre	---	---
Regulatory Framework Review Project	---	---
Voluntary Retirement Scheme funded through M/o of Coal	430.00	425.06
Total	26696.00	**31591.00

* The increase in fund requirements over the assessment made by the Working Group is largely due to increase in outlays of Neyveli Lignite Corporation (NLC)

** This figure is yet to be formally approved by the Planning Commission.

Plan Expenditure

5.18 BE, RE and actuals up to Nov., 02 for the year 2002-03 and BE for the year 2003-04 is given below:-

(Rs. In crores)

Year	CIL	SCCL	NLC	S&T/RE/EMSC/ D.D./ V.R.S.
2002-03(BE)	2190.00	405.00	584.95	311.77
2002-03(RE)	1700.00	227.00	617.60	263.07
2002-03(Actual up to Nov. 2002)	472.97	89.19	235.15	21.13
2003-04(BE)	2240.00	340.00	455.40	275.08

NEYVELI LIGNITE CORPORATION

Tenth Five Year Plan 1997-2002 & Annual Plans 2002-03 and 2003-04

5.19 The targeted figures (BE & RE) and actual up to Nov., 2002 for the year 2002-03 and targeted figure for the year 2003-04 of lignite production, power generation, urea and coke production are given below:-

Year	Lignite (million tonnes)	Power Gen. (million units)	Urea (tonnes)	Coke (tonnes)
2002-03 (Target)(BE)	19.95	14638	120,000	0,000
2002-03 (Target)(RE)	18.85	12350	0,000	0,000
2002-03 (Actual prov. Up to Non.,02)	11.02	9343.91	0,000	0,000
2003-04 (Target)	20.90	15006	0,000	0,000

EXPENDITURE

Budget for the year 2002-03 for NLC is as under:-

(Rs. in crores)

Year	BE	RE	Actual Prov. Up to Nov.,02
2002-03	584.95	617.60	235.15
2003-04	455.40	---	---

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