

# **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 the 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. Recognising 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 nationalised in phases in 1972 and 1973. The primary goal of the nationalised coal industry was to ensure a scientific approach to exploration and exploitation of coal deposits with due attention to safety, conservation and the environment, while accelerating production levels 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 the 9th Five Year Plan, the Working Group on Coal & Lignite, constituted by Planning Commission, had assessed the country's raw coal demand in 2001-02, the terminal year of the 9th Plan, at 405.00 million tonnes. To meet this demand, the 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=20.60 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 then Ministry of Coal due to various constraints. Therefore, overall production for the terminal year of 9<sup>th</sup> 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 9<sup>th</sup> Five Year Plan i.e. 2001-02 is fixed at 328.86 million tonnes.

5.3 Against the projection of 9<sup>th</sup> Plan, year-wise demand assessed by Planning Commission for each 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 brackets represent middlings.

### **Production (Ninth Plan)**

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 period was recorded at 299.97 million tonnes which works out to 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 for the period of April-November, 2001 has been recorded as 197.99 million tonnes which is higher than the production of the corresponding period (April-November, 2000, 189.80 tonnes).

### **Coal Production during Annual Plans of 9<sup>th</sup> Five Year Plan**

(in million tonne)

Company	1997-98		1998-99		1999-2000		2000-01		2001-02	
	Target	Actual	Target	Actual	Target	Actual	Target	Actual	Target	Actual upto Nov. 2001
ECL	32.50	27.42	32.00	27.16	29.00	25.12	28.00	28.03	28.50	16.759
BCCL	30.70	30.92	32.30	27.17	27.50	27.90	29.50	25.97	30.00	15.884
CCL	33.50	33.08	35.00	32.18	33.50	32.40	34.00	31.75	36.00	19.127
NCL	37.00	37.12	37.00	36.52	37.50	38.43	39.00	41.40	41.50	26.580
WCL	30.50	32.52	32.00	31.75	32.00	33.86	33.00	35.20	35.00	23.456
SECL	55.50	56.63	58.70	57.56	58.00	58.75	60.00	60.33	63.00	38.755
MCL	39.50	42.17	41.00	43.51	41.00	43.55	43.00	44.80	44.50	29.903
NEC	00.80	00.69	00.85	00.64	00.60	00.57	00.50	00.66	00.50	00.322
CIL	260.00	260.55	268.85	256.48	259.10	260.58	267.00	268.14	279.00	170.786
SCCL	31.00	28.94	31.00	27.33	31.00	29.56	31.67	30.27	32.38	19.003
Others	6.45	6.31	6.65	8.46	8.80	9.84	9.40	15.23*	11.35	8.20**

Total	297.45	295.80	306.50	292.27	298.90	299.97	308.07	313.64	322.73	197.989
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\* indicates including Meghalaya.

\*\* indicates excluding Meghalaya

## **Man Productivity (Ninth Plan)**

5.5 Productivity is measured as output per man shift (OMS) (actual) in tonnes. The actual figures for the first 4 years of the 9th FYP i.e. 1997-98 to 2000-01 and the targeted and actual (prov.) figure for the year 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 (Target)	0.63	6.67	2.32	0.85	6.19	1.56
2001-02 (Actual Provisional)	<u>0.62</u> *	<u>5.84</u> *	<u>2.22</u> *	<u>0.81</u> *	<u>6.14</u> *	<u>1.51</u> *

\* Upto October, 2001

## **Ninth Five Year Plan Outlay**

5.6 The total plan outlay assessed by the Working Group on Coal and Lignite for 9<sup>th</sup> 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

\* National Development Council

\*\* Planning Commission

## **Plan Expenditure (Ninth Plan)**

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

(Rs. In crores)

Year	CIL	SCCL	NLC	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	186.34	30.30
1998-99(Actual)	1831.97	206.09	581.07	44.80
1999-00(Actual)	2769.66	145.20	652.60	56.00
2000-01(Actual Provisional)	1287.63	159.53	1061.02	281.81
2001-02 (BE)	2309.90	355.00	988.81	323.44
2001-02 (Actual Provisional upto Nov., 2001)	628.10	82.05	358.49	193.29

## **Neyveli Lignite Corporation**

### **Ninth Five Year Plan 1997-2002**

5.8 The actual figures for the year 1997-98 to 2000-01 and target and achievement of lignite production, power generation, urea and coke production for the year 2001-02 are given below:

Year	Lignite (million tonnes)	Power Gen. (million Units)	Urea (tonnes)	Coke (tonnes)
1997-98 Target	16.50	11365.00	124,000	240,000
Actual	18.10	13402.27	102,690	233,963
1998-99 Target	17.50	11715.00	105,000	240,000
Actual	18.17	13340.00	67,834	205,269
99-00 Target	17.50	12431.00	96,000	240,000
Actual	17.55	13304.74	17,204	122,900
2000-01 Target	17.50	12421.00	137,000	240,000
Actual	18.17	14673.18	97,851	86,426
2001-02 Target	17.50	13083	150,000	160,000
Actual upto Nov., 2001	11.57	9383.40	39650	260

## **Expenditure**

5.9 Budget, Revised Estimates and Actual for year 1997-98 to 2000-01 and BE, RE and actual (provisional upto Nov., 2001) for the year 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	358.49*

\* The figure is upto November, 2001.

## **TENTH FIVE YEAR PLAN PERIOD (2002-07)**

### **Coal Demand**

5.10 The working Group on Coal & Lignite for formulation of Tenth Five Year Plan, constituted by Planning Commission, has assessed the country's raw coal demand in 2006-07, the terminal year of the 10<sup>th</sup> Plan at 453.29 million tonnes (including 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 finalised 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 anticipated achievement	X Plan 2006-07 (Projection as per WG)
<b>Coking Coal</b>			
• Steel	32.21	29.75	37.66
• Coke Oven	1.91	0.66	2.00
<b>Sub Total Coking</b>	<b>34.12</b>	<b>30.41</b>	<b>39.66</b>
<b>Non Coking Coal</b>			
• Power ( Utilities )	241.54 (2.78)	241.19 (3.27)	315.44
• Power (Captive)	21.11 (1.35)	18.30 (1.44)	28.31
• Cement	17.00	15.00	21.68
• Fertiliser	3.50	3.10	4.18
• Others	34.52 (0.70)	33.00 (0.22)	41.52
• Colliery Consumption	2.50	2.17	2.50
<b>Sub Total NC</b>	<b>320.17</b> (4.83)	<b>318.03</b> (4.93)	<b>413.63</b>
<b>Grand Total</b>	<b>354.29</b> (4.83)	<b>348.44</b> (4.83)	<b>453.29 *</b>

**Note :** (\*) Inclusive of middling

- I Washery middlings are shown in brackets.
- II Steel demand includes imported coking coal of 12.25 Mt.(Actual) in 2000-01 and projected 15.05 MT in 2001-02 and 19.98 MT in 2006-07.  
Power (utilities) consumption/demand includes imported coal of 2.48 MT (Actual) in 2000-01 and projected 3.73 MT in 2006-07.  
Cement Sector consumption/demand includes imported coal of 5 MT (Actual) in 2000-01 and projected 3.276 MT in 2006-07 excluding coal requirement of mini cement plants.

5.12 Against the projection of 10<sup>th</sup> Plan, the demand for the first year i.e. 2002-03 assessed by Planning Commission is given below:

(million tonnes)

Year	Demand
2002-03	363.30 (4.925)

Figures in bracket represent middlings.

## **Production (Tenth Plan)**

5.13 The target for the first year of Tenth Five Year Plan (2002-03) is fixed at 335.70 million tonnes.

(in million tonne)

Company	Target
ECL	29.00
BCCL	28.00
CCL	34.25
NCL	44.00
WCL	37.00
SECL	65.25
MCL	48.00
NEC	00.50
CIL	286.00
SCCL	32.50
Others	17.20
Total	335.70*

\* excluding Meghalaya.

5.14 The all India coal demand assessed for the year 2002-03 is 363.30 (4.925 of middlings) million tonnes. Against this demand, availability of coal in 2002-03 is indicated as under:

(In million tonnes)

Coal India Limited	286.00
Singareni Collieries Company Ltd	32.50
Others*	17.20
Draw down of stock	0.40
Total	336.10

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

5.15 Thus there would be a gap of 27.20 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 of productivity, measured as output per man shift, for the year 2002-03 is given below.

(figures in tonnes)

Year	Coal India Limited			Singareni Collieries Company Ltd.		
	UG	OC	Overall	UG	OC	Overall
2002-03	0.69	6.86	2.58	0.84	7.98	1.66

## **Tenth Five Year Plan Outlay**

5.17 The total plan outlay assessed by the Working Group on Coal and Lignite for 10<sup>th</sup> Five year Plan was further reassessed and the revised proposal of the Department of Coal is given below.

(Rs. In Crores)

Name of Company/Scheme	Allocation projected by Working Group	Allocation recommended to Planning Commission
Coal India Limited	14310.00	14310.00
Singareni Collieries Company Limited	2113.00	2113.00
Neyveli Lignite Corp. Ltd.	9145.00	14133.58 *
Regional Exploration	435.00	275.80
Science & Technology	100.00	100.00
Environmental Measures	163.00	163.00
Subsidence Control		
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 Ministry of Coal	430.00	430.00
<b>Total</b>	<b>26696.00</b>	<b>31596.04**</b>

\* 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 for the year 2002-03 is given below:

(Rs. In crores)

Year	CIL	SCCL	NLC	S&T/R.E./EMSC/ D.D./ V.R.S.
2002-03	2190.00	405.00	584.96	311.77

## **Neyveli Lignite Corporation**

### **Tenth Five Year Plan 1997-2002**

#### **Annual Plans 2002-03**

5.19 The targeted figures of lignite production, power generation, urea and coke production for the year 2002-03 are given below:

Year	Lignite (million tonnes)	Power Gen. (million units)	Urea (tonnes)	Coke (tonnes)
2002-03 (Target)	19.95	14638	120,000	0,000

#### **Expenditure**

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

(Rs. in crores)

Year	BE
2002-03	584.96