

R-(20)

A

BRIEF ON

EASTERN COALFIELDS LTD.



DECEMBER, 2004

EASTERN COALFIELDS LIMITED

SANCTORIA. P.O. DISHERGARH-713333

DIST. BURDWAN(W.B.)

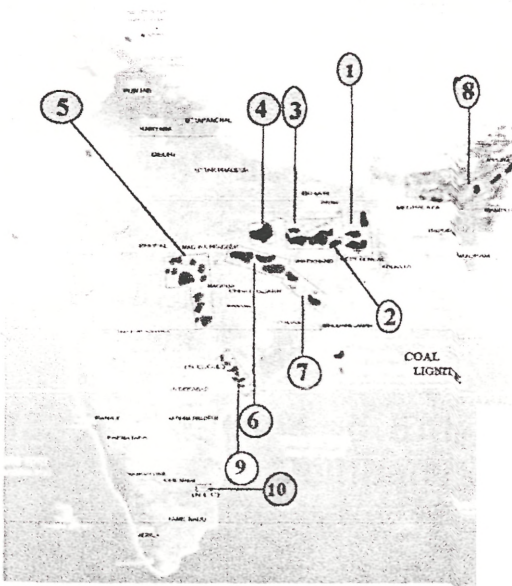
A PRESENTATION ON EASTERN COALFIELDS LIMITED



DECEMBER - 2004



COAL AND LIGNITE RESOURCES IN INDIA



COAL PRODUCING SUBSIDIARIES OF CIL

- | | |
|---|------|
| EASTERN COALFIELDS LTD. | (1) |
| BHARAT COKING COAL LTD. | (2) |
| CENTRAL COALFIELDS LTD. | (3) |
| WESTERN COALFIELDS LTD. | (4) |
| SOUTH COALFIELDS LTD. | (5) |
| SOUTH EASTERN COALFIELDS LTD. | (6) |
| SOUTH WESTERN COALFIELDS LTD. | (7) |
| NORTH EASTERN COALFIELDS.
(A UNIT UNDER CIL(HQ)) | (8) |
| | (9) |
| | (10) |

**HISTORICAL
BACKGROUND
OF
RANIGANJ COALFIELD**

Raniganj Coalfield is the birth place of coal mining in the country.

1774 - Mining operation in the country started first in this coalfield by Sumner & Heatly.

1820 - First Coal Company, M/s. Alexander & Co. was established.

1835 - First Indian Enterprise i.e. M/s.Carr & Tagore Company was formed.

1843- The first joint stock Coal Company i.e. M/s. Bengal Coal Company was formed .

Since then, underground coal mining operations had been continuing in Raniganj Coalfield by numerous small owners .

Raniganj Coalfield remained the principal producer of coal in 19th century and considerable period of the 20th century.

1885- Rail link established between Howrah and Raniganj.

1973 - Non-coking coal mines were nationalised and brought under Eastern Division of Coal Mines Authority Limited.

1975 - Eastern Coalfields Limited, a Subsidiary of Coal India Limited, was formed. It inherited all the private sector coal mines of Raniganj Coalfield, mostly UG mines with unscientifically mined abandoned and waterlogged workings in upper horizons.



COAL RESERVES IN INDIA (HARD COAL)

(As on 1.1.2004)
(BILLION TONNES)

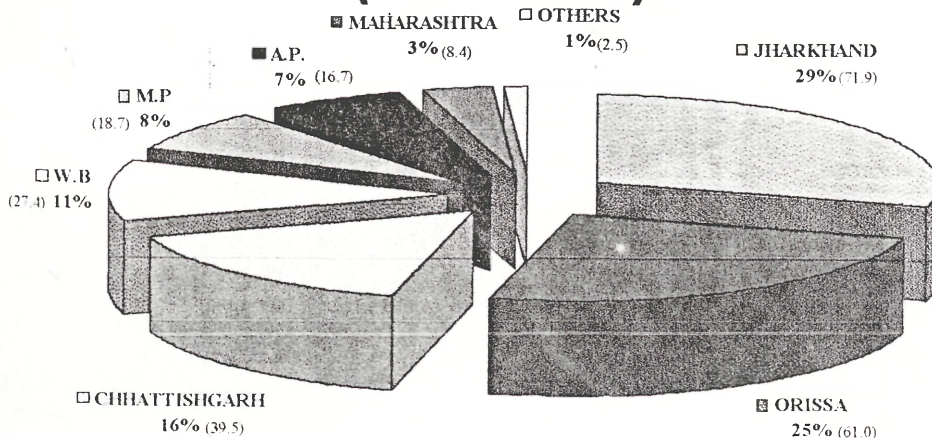
	TOTAL RESERVE	PROVED RESERVE	INDICATED RESERVE	INFERRED RESERVE
COKING	32	17	13	2
NON-COKING	213	75	103	35
TOTAL	245	92	116	37
*WORLD COAL RESERVE	-	519	-	-
% RESERVE IN INDIA OVER WORLD RESERVE	-	17	-	-
ECL	42.97	15.31	21.85	5.81



State-wise Coal Reserve in India

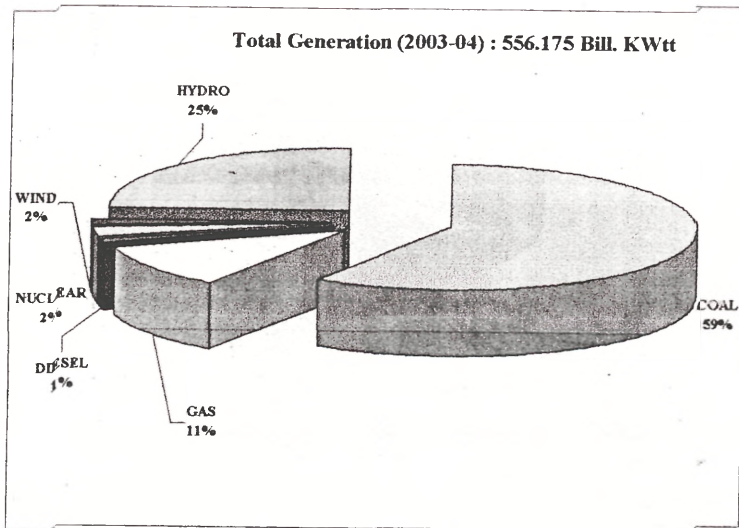
(As on 01.01.2004)

(Billion tonnes)





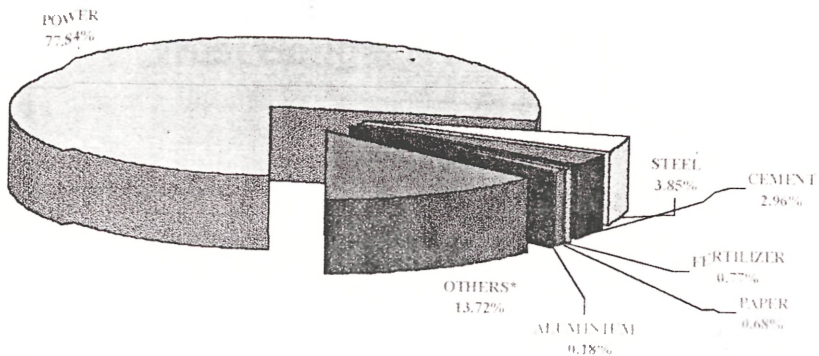
MODE-WISE ELECTRICITY GENERATING CAPACITY SHARE IN INDIA.



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CIL'S CONSUMER PROFILE (2003-04)

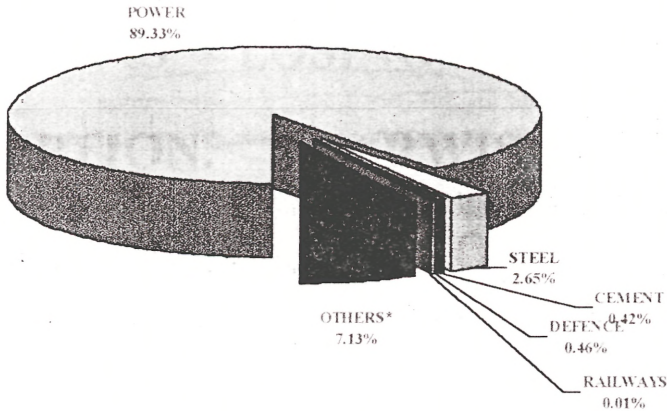


*OTHERS :SSF (Special Smokeless Fuel) units, Briquette manufacturing units, Chemical, Glass & Potteries, Leather units, Trade Channel Networks, OSS etc. and small Captive Power Plants.

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ECL'S CONSUMER PROFILE (2003-04)



*OTHERS :SSF (Special Smokeless Fuel) units, Briquette manufacturing units, Chemical, Glass & Potteries, Leather units, Trade Channel Networks, OSS etc. paper and small Captive Power Plants.

- ECL's command area is spread over in two States - West Bengal & Jharkhand.
- In West Bengal, ECL's operation is in Burdwan, Birbhum, Bankura and Purulia Districts and in Jharkhand, the same is in the Districts of Dhanbad, Deoghar & Godda.

E.C.L. IS LOSING SINCE ITS INCEPTION. YEARWISE LOSSES INCURRED BY THE COMPANY FOR LAST FIVE YEARS ARE -

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PRODUCTION AND LOSS OF LAST FIVE YEARS

Year	Prod. in Mt	Overburden Removal in M.Cum.	Loss in Rs. Crs.
99-00	25.12	28.93	728.23
00-01	28.03	31.63	917.19
01-02	28.55	33.39	277.64
02-03	27.18	32.04	338.78
03-04	28.00	35.71	322.98

SPECIAL FEATURES OF ECL

- Coal seams deep seated (100 to 300M) requires more intensive roof supports and ventilation.
- Coal seams are highly gassy and susceptible to spontaneous heating. As such panel length has to be restricted. 40% of the UG mines are fiery, prone to spontaneous heating & fire.
- Old waterlogged workings in upper seams attract statutory restrictions and rendered many areas unstable.

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- Raniganj coalfield is one of the most densely populated region of the country and there are more than 100 villages and 12 townships.
- Presence of important surface features require hydraulic sand stowing increasing the cost of mining.

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- Most of the mines have extensive working requiring 5-6 nos. of haulages resulting into low productivity.
- Dewatering of upper seams which is essential for working lower seams may cause spontaneous heating in the coal.

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- Coal seams are overlain by prime agricultural land.
- Large manpower strength (107906) with 8591 female employees.
- THE OPENCAST & UNDERGROUND RATIO IS UNFAVOURABLE 65:35 WHICH IS THE HIGHEST AMONGST THE SUBSIDIARIES IN COAL INDIA.

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LOCATION OF DIFFERENT COALFIELDS IN ECL
AND ITS AREA

SL. NO.	COALFIELD	DISTRICTS	STATE	AREA (Sq.Km.)
1	RANIGANJ	Burdwan Birbhum Bankura Purulia	West Bengal West Bengal West Bengal West Bengal	1482
2	MUGMA	Dhanbad	Jharkhand	138
3	SAHARJURI (S.P.MINES AREA)	Deoghar	Jharkhand	
4	HURA (RAJMAHAL)	Godda	Jharkhand	
TOTAL				1620

STATEWISE COAL RESERVES
IN ECL AREAS AS ON I.I.2004

Fig. in Billion Tes.

	PROVEN	INDICATED	INFERRED	TOTAL
WEST BENGAL	11.38	11.52	4.49	27.39
JHARKHAND	3.93	10.33	1.32	15.58
TOTAL	15.31	21.85	5.81	42.97

STATEWISE DEPTHWISE COAL RESERVES

Fig. in Billion Tes.

	0-600m	600-1200m	TOTAL
WEST BENGAL	22.42	4.97	27.39
JHARKHAND	15.58	0.00	15.58
TOTAL	38.00	4.97	42.97

MANPOWER POSITION AS ON 1.11.2004

Category	Nos.	Percentage
Female	8591	7.96
Male	99315	92.04
Total	107906	100.00

No. of Scheduled Caste	-	27300	25.30%
No. of Scheduled Tribe	-	9495	8.80%

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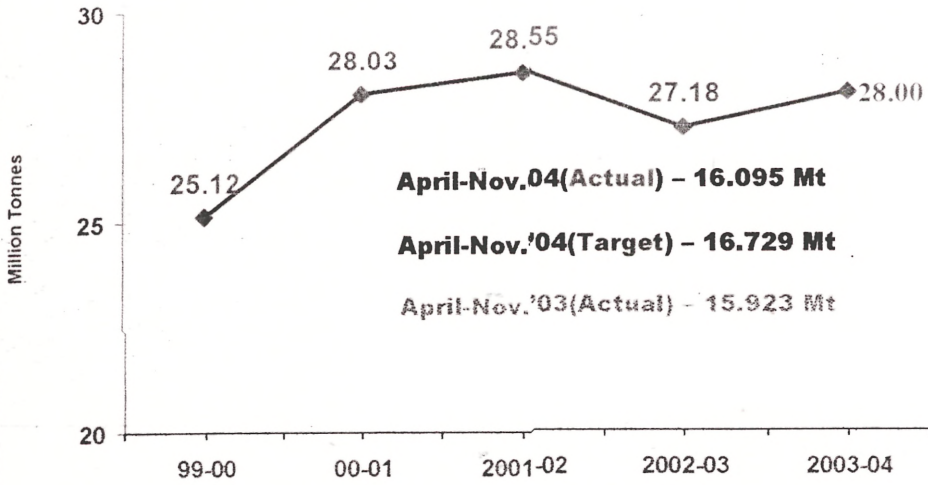
EASTERN COALFIELDS LTD - AT A GLANCE

- *ECL produces and is bestowed with the largest reserves of best quality non-coking coal in the country.*
- *ECL contributes about 9-10% total production in India.*
- *ECL employs nearly 107 thousand persons which is the largest amongst CIL's subsidiaries. This is about 22.7% of CIL's total employment of 484 thousand.*
- *Turnover of ECL is Rs. 3510 Crores in 2003-04 which is about 13% of CIL's turnover of Rs.26704 crore.*
- *ECL is having the largest number of operating mines (88 UIG and 18 OC) numbering 106 out of CIL's total of 461 units.*
- *Loss of ECL in 03-04 has been Rs. 323 crores. In spite of including the impact of Interim Relief of Rs. 286 crores, there is substantial reduction in losses compared to Rs. 338 crores in 02-03.*
- *The Company is poised for a major increase in coal production to 35.14 million tonnes by end of 10th Plan (06-07) which is about 25% increase from 03-04 performance.*

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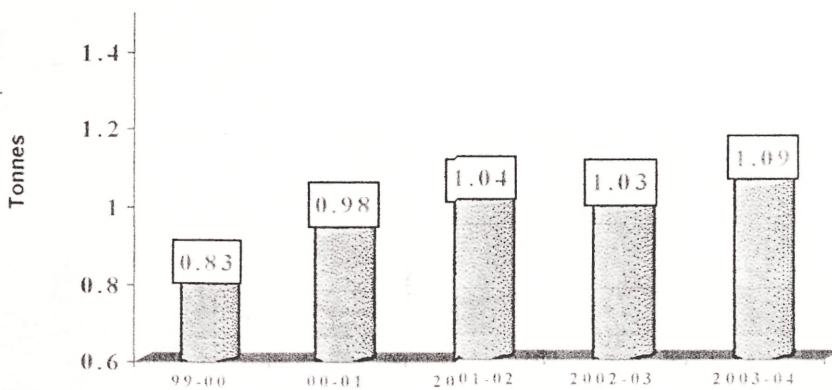
ECL's PERFORMANCE (LAST 5 YEARS)

RAW COAL PRODUCTION



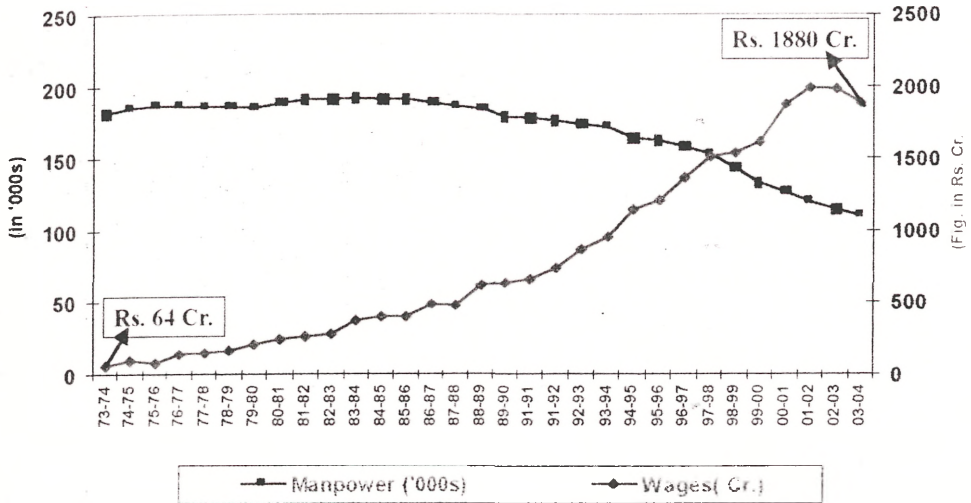
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MAN PRODUCTIVITY IN ECL.

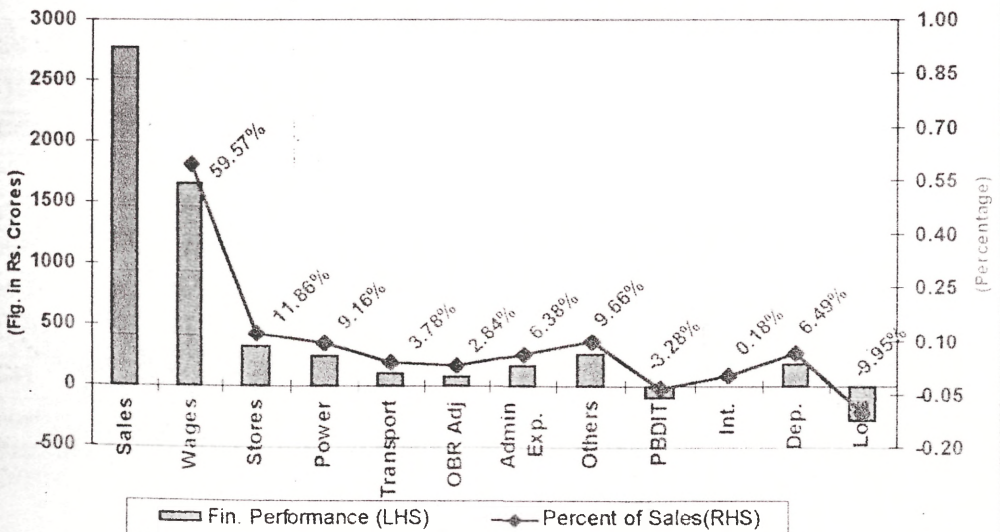


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YEARWISE MANPOWER & WAGES



COST REPORT – 2003-04 (PROV.)





COMPANYWISE PROJECTION OF PRODUCTION

(Million Tonne)

COMPANY	Xth PLAN 2006-07 Projection	INCREASE OVER IXth PLAN	XI PLAN (2011-12) Projection	INCREASE OVER X PLAN
ECL	31.00	2.45	41.00	10.00
BCCL	33.00	7.74	36.00	3.00
CCL	43.30	9.49	52.00	8.70
NCL	52.00	9.54	58.00	6.00
WCL	37.50	0.49	38.00	0.50
SECL	84.55	20.43	99.00	14.45
MCL	68.00	20.19	120.00	52.00
NEC	0.65	0.01	1.00	0.35
CIL	350.00	70.35	445.00	95.00
CAGR (%)	4.59		4.92	

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CAPITAL INVESTMENT PLAN OF CIL

(Rs. Crores)

COMPANY	IX PLAN 1997-2002	2002-03	2003-04	X PLAN 2002-07
ECL	650.10	131.45	89.45	1460
BCCL	555.40	55.39	86.77	1300
CCL	973.93	131.60	240.02	1250
NCL	2121.43	432.00	395.07	2750
WCL	1307.73	145.01	130.48	1435
SECL	1726.14	153.34	167.54	3520
MCL	1233.70	139.83	109.22	2500
OTHERS #	63.76	3.48	6.10	95
CIL	6632.19	1192.18	1224.65	14310*

Note : # Others
include NEC/ CIL(HQ)/
DCC/ IICM/ CMPDIL

*This is the capital investment required during 10th Plan period. However, fund required for 92 projects of X Plan is Rs.6344 crores. Balance investment is against existing mines, completed projects, washery, non-mining projects & exploration work during the period.

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CRITICAL ISSUES



REVIEWAL OF ECL

- ECL IS LOSING SINCE ITS INCEPTION DUE TO LARGE NUMBER OF UNDERGROUND AND OPENCAST MINES HAVING LOW PRODUCTION & PRODUCTIVITY WITH SURPLUS NON-PRODUCTIVE MANPOWER.
- TILL 1995 LOSSES WERE OFFSET BY CPRA RECEIVED THROUGH MOC, GOVT. OF INDIA.

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CAPITAL STRUCTURE 1996-97

Rs.Crores

• SHARE CAPITAL	:	1039.00
(AS ON 31.3.97)		
• RESERVE	:	9.32
• LESS EXP.NOT WRITTEN OFF	:	112.80
• ACCUMULATED LOSS	:	1186.72
AS ON 31.3.97		
• NET WORTH, AS ON 31.3.97	:	(-) 251.20
• SINCE THE NET-WORTH BECAME NEGATIVE THE COMPANY WAS REFERRED TO BIFR.		

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**CAPITAL RESTRUCTURING DONE BY CIL BY
CONVERTING LOAN INTO EQUITY IN 1997-98**
Rs.Crores

• SHARE CAPITAL (AS ON 31.3.98)	:	1039.00
• CONVERSION OF LOAN INTO EQUITY	:	1179.45
• TOTAL EQUITY	:	2218.45
• RESERVES	:	9.32
• ACCUMULATED LOSS AS ON 31.3.98	:	1728.61
• MISC EXP. NOT WRITTEN OFF	:	75.20
• NET WORTH AS ON 31.3.98	:	(+) 423.96
• SINCE THE NET WORTH BECAME POSITIVE THE COMPANY CAME OUT OF BIFR.		

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CAPITAL STRUCTURE 1998-99

Rs.Crores

• SHARE CAPITAL (AS ON 31.3.99)	:	2218.45
• RESERVE	:	9.32
• ACCUMULATED LOSS AS ON 31.3.99	:	2201.07
• MISC. EXP. NOT WRITTEN OFF:	:	37.60
• NET WORTH AS ON 31.3.99	:	(-) 10.90

SINCE THE COMPANY INCURRED LOSS OF Rs. 472.47 CRORE DURING THE YEAR, NETWORTH AGAIN BECAME NEGATIVE BY Rs.10.90 CRORE AND THE COMPANY WAS AGAIN REFERRED TO BIFR.

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□ With phasing out of budgetary support and stoppage of free flow of funds from PMCs to LMCs through CPRA mechanism till 1995-96 it has become imperative for each subsidiary company to be self reliant. And unless a plan for revival is implemented with urgency, the company will sick with serious implications.

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□ In July 1997, Coal India Ltd(CIL) appointed M/s. Industrial Credit and Investment Corporation of India (ICICI) for preparation of re-structuring-cum- revival plan of ECL.

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REVIVAL PLAN SUBMITTED BY ICICI

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M/s ICICI submitted its report in Jan 2000 in which ECL's mines were categorized in 4 groups as under:

Group	Classification of Areas	Areas
Group-I	Profit making high capacity opencast mines	Rajmahal, Sonepur-Bazari, S.P. Mines
Group-II	Areas with profit making potential	Bankola, Kajora, Kenda, Kunustoria
Group-III	High capacity longwall mines	Jhanjra, Khottadih
Group-IV	Mines with difficult mining conditions	Satgram, Pandaveswar (Except Khottadih UG & OC), Sahampur, Sodepur, Sripur, Mugma

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ICICI Report on ECL

- **ICICI WAS ENGAGED AS CONSULTANT TO FORMULATE REVIVAL PLAN.**
- **ICICI REPORT MAINLY ENVISAGES -**
 - **CLOSURE OF 64 HIGHLY LOSS MAKING MINES**
 - **DOWNSIZING OF MANPOWER BY 71,444 PERSONS.**

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ICICI Report on ECL

- **FINANCIAL RESTRUCTURING TO CLEAR UP THE BALANCE SHEET.**
- **FORMATION OF JV WITH PRIVATE COMPANY WITH MANAGEMENT CONTROL AND 49% EQUITY STAKE TO THE PRIVATE PARTNER.**
- **RECOMMENDATION OF ICICI WAS NOT FOUND ACCEPTABLE TO CGA, MINISTRY OF FINANCE.**

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DRAFT REHABILITATION SCHEME OF ECL SANCTIONED BY BIFR

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REVIVAL PLAN OF ECL

- **EQUITY BASE** : **Rs. 2218 Crs.**
- **NET WORTH ON 1.4.04** : **(-) Rs.2245 Crs.**
- **REFERRED TO BIFR ON 31.3.97**
- **REVIVAL PLAN SUBMITTED TO MOC ON 4TH MARCH '04.**

- ✓ **INCREMENTAL PRODUCTION OF 14.22 MT DURING 2003-04 TO 2011-12.**
 - (I) **OUTSOURCING** - 17 OC PATCHES.
 - (II) **MECHANISATION OF U/G MINES.**
INCREMENTAL PRODUCTION - 3.72 MTPA.
 - (III) **INCREASE IN O/C PRODUCTION INCLUDING**
RAJMAHAL EXPN., CHUPERBHITA AND
HURA-C -16.7MTY TO 27.2 MTY.

- ✓ **OUT OF BIFR-NET WORTH POSITIVE IN 2008-09.**

- **SUPPORT REQUIRED:**
 - (1) **CONVERSION OF CURRENT A/C BALANCE RS.1532 CR. INTO EQUITY. GOI TO FUND.**
 - (2) **WAIVAL OF INTEREST OF RS.168 CR.**
 - (3) **WAIVAL OF CIL LOAN OF RS.519 CR.**
- **OA (SBI) HAS SUBMITTED THE PROPOSAL TO BIFR AFTER SERIES OF DISCUSSION WITH ALL THE STAKE HOLDERS.**

- ❑ BIFR VIDE ITS ORDER DATED 2ND NOV. 2004 SANCTIONED THE DRAFT REHABILITATION SCHEME OF ECL (MARCH 2004) FOR IMPLEMENTATION. THE SCHEME IS BINDING ON ALL CONCERNED.

- ❑ SRI SANDEEP SAXENA, DY. CONTROLLER GENERAL OF ACCOUNTS VISITED ECL ON 16TH & 17TH NOV, 2004 FOR A DISCUSSION ON THE REHABILITATION SCHEME OF ECL. HE WAS SATISFIED ABOUT THE STEPS TAKEN BY THE COMPANY TO IMPLEMENT THE SCHEME.

PRIORITY ISSUES OF ECL



PRIORITY ISSUES - ECL

IMMEDIATE PRODUCTION ISSUES:

- Ⓟ INTRODUCTION OF PSLW SET IN R-VI SEAM OF JHANJRA PROJECT. TOTAL INVESTMENT IS Rs. 220 CRORES FOR ADDITIONAL PRODUCTION OF 1.5 MT.
- Ⓟ APPROVAL OF RAJMAHAL EXP. (6.5MT) AND CHUPERBHITA OC (4 MT) PROJECT
- Ⓟ INTRODUCTION OF CONTINUOUS MINER AT JHANJRA, KHOTTADIH AND SARPI U/G MINES AT INITIAL STAGE. TWO MORE CONTINUOUS MINERS WOULD BE DEPLOYED AT JHANJRA AND SARPI. TOTAL INVESTMENT IS Rs. 264 CRORES WITH PRODUCTION AVAILABILITY OF 2.1 MT.

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PRIORITY ISSUES - ECL

IMMEDIATE PRODUCTION ISSUES:

- THE FOLLOWING SIX UG PROJECTS ARE ALREADY APPROVED AND UNDER CONSTRUCTION/IMPLEMENTATION. TOTAL INVESTMENT FOR THESE PROJECTS IS Rs. 60.13 CRORES WHICH WILL PROVIDE ADDITIONAL 1.12 MT OF PRODUCTION.
 1. BANSRA UG
 2. SHANKERPUR UG
 3. KUMARDIHI A&B UG
 4. PARASEA-DOBRANA UG
 5. BANKOLA R-VI UG
 6. KHANDRA NKJ UG
- STATUS OF THREE MORE UG PROJECTS TO BE IMPLEMENTED:
THE PR FOR NABA KAJORA AND SIDULI HAVE BEEN SUBMITTED AND FOR KUMARDIHI B IT IS UNDER FORMULATION. THESE PROJECTS ENVISAGES MECHANISED B&P TECHNOLOGY AND WILL CONTRIBUTE 1.38 MT WITH A TOTAL INVESTMENT OF Rs. 203 CRORE. THESE MINES ARE HAVING DEEP SHAFTS (UPTO 300 MTRS. DEPTH).

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PRIORITY ISSUES - ECL

IMMEDIATE PRODUCTION ISSUES:

- ① RE-OPENING OF MADHUIJORE 1&3 PITS (JAIPURIA UNIT) WHICH IS LYING CLOSED SINCE 2001 DUE TO HEATING AND FIRE HAZARDS. ACTION PLAN IS BEING DRAWN UP TO RESTART THE MINE PRODUCTION SO THAT THE EXISTING EXTRACTABLE RESERVES CAN BE LIQUIDATED.

- ② ADDITIONAL CAPACITY GENERATION OF 1 MTY AT SONEPUR BAZARI OCP BY OUTSOURCING.

- ③ ADDITIONAL CAPACITY GENERATION OF 1.5 MTY AT SALANPUR AREA BY EXPANDING THE EXISTING OPENCAST MINES.

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PRIORITY ISSUES - ECL

NEW INITIATIVES IN WEST BENGAL:

SEVEN NEW UG MINES IN WEST BENGAL OUT OF WHICH FOUR MINES WILL BE WITH CONTINUOUS MINER TECHNOLOGY AND THREE MINES WITH MECHANISED B&P DEPLOYING LHDs. TOTAL INVESTMENT WOULD BE AROUND Rs. 520 CRORES WHICH WILL CONTRIBUTE 3.18 MT BY 2011-12.

FOUR MINES WITH CONTINUOUS MINER

1. TILABONI
2. RANGAMATI
3. MADANPUR
4. GHUSICK

THREE MINES WITH MECHANISED B&P DEPLOYING LHDs

1. DALURBAND
2. DOBRANA SEAM AT KUNUSTORIA
3. HARIPUR EXTENSION

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PRIORITY ISSUES - ECL

IMMEDIATE PRODUCTION ISSUES:

- Ⓟ GRADUAL CONVERSION OF MANUAL UG MINES TO MECHANISED B&P MINES WITH SDL/LHDs. TOTAL INVESTMENT IS Rs. 66 CRORES.
- Ⓟ FOR DEALING WITH INUNDATION PROBLEMS AND WATER-LOGGED AREAS IN EXISTING MINES Rs. 10 CRORES IS BEING EARMARKED FOR PROCUREMENT OF HIGH CAPACITY PUMPS AND ACCESSORIES.
- Ⓟ TO DEVELOP INFRA-STRUCTURAL FACILITIES TOWARDS CRUSHING, COAL HANDLING AND RAILWAY SIDING IN RANIGANJ COALFIELD Rs. 100 CRORES IS BEING SOUGHT FROM INFRASTRUCTURAL FUND.

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PRODUCTION-WISE DISTRIBUTION OF UNDERGROUND MINES DURING 2003-04

UNDERGROUND MINES	-	-	Total Loss in 2003-04 in Rs..Cr.
Number of mines producing upto 100 TPD	-	8	-65.63
Number of mines producing upto 101-200 TPD	-	23	-228.29
Number of mines producing upto 201-300 TPD	-	16	-156.76
Number of mines producing upto 301-500 TPD	-	24	-235.43
Number of mines producing upto 501-1000 TPD	-	16	-140.8
Number of mines producing more than 1000 tpd	-	4	-54.42
Total		91	-881.33
Loss of Mines having Nil production	-		-26.69
Total Loss after adjustment	-		-908.02

LARGE CAPACITY MODERN/MECHANISED MINES TO BE CREATED TO AUGMENT PRODUCTION. PRODUCTIVITY, SAFETY AND PROFITABILITY.

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IMPROVING THE VIABILITY OF HEAVILY LOSING UG MINES & EXTRACTION OF COAL FROM CLOSED MINES

- Economics of heavily losing UG mines can be improved by implementing suitable Indian/Foreign Technology envisaging:
 - Outsourcing of Operations
 - Deployment of existing employees.
- Adoption of suitable technology from abroad can improve the viability of Chinakuri UG mine presently suffering a loss of around Rs. 14 Cr./annum due to difficult geo-mining conditions and unsuitable mining technology. Otherwise the operations have to be suspended.
- In closed/abandoned UG mines, where seams exist at shallow depth, coal can be extracted by Augur mining⁵¹.

PROFIT FROM OUTSOURCED O.C.PATCHES

SL. NO.	NAME OF O.C. PATCH	PRODUCTION ACHVD. IN 2003-04 (Mt.)	% OF TOTAL PRODUCTION IN ECL (Mt.)	PROFIT EARNED DURING 03-04 (RS.CR.)	PROFIT EARNED TILL 30.11.04 OF 2004-05 (RS.CR.)	REMARKS
1	BILPAHARI PANDAVESWAR AREA	0.153	0.55	13.20	31.00	ON-GOING
2	SHANKARPUR, BANKOLA AREA	0.164	0.59	13.36	27.91	ON-GOING
3	PATMOHANA, SODEPUR AREA	0.064	0.23	2.03	3.84	ON-GOING
4	DALURBAND PATCH 'D' PANDAVESWAR AREA	0.012	0.04	0.82	9.11	ON-GOING
5	KHOIRABAND 'A' SALANPUR	0.114	0.41	5.13	-	EXHAUSTED
6	KHOIRABAND 'B' SALANPUR AREA	-	-	-	17.37	ON-GOING/ DECOALING
7	KUMARDHUBI - 5 K MUGMA AREA	-	-	-	1.95	ON-GOING/ DECOALING
8	EGARA, KUNUSTORIA AREA	-	-	-	4.25	ON-GOING/ DECOALING AWAITED
TOTAL				34.54	95.44	

UTILISATION OF FUND GENERATED FROM OUTSOURCED OC PATCHES

- **ADDITIONAL OPENCASTABLE SMALL PATCHES IDENTIFIED TO BE WORKED BY OUTSOURCING FOR FUND GENERATION.**
 - **IRR OF SONEPUR BAZARI 'B' OCP IS NEGATIVE. BY PRODUCING 1 Mt. THROUGH OUTSOURCING THE MINE WILL EARN A PROFIT OF Rs. 70 Cr./ANNUM.**
 - **SONEPUR BAZARI PATCH IS A PART OF REVIVAL PLAN. IT WILL GENERATE 247 EMPLOYMENT TO LAND LOSERS AND INDIRECT EMPLOYMENT TO OTHERS.**
- ONLY REPUTED BIG CONTRACTORS WILL BE ENGAGED, WHO HAVE THE ABILITY TO RUN BIG OC MINES BY DEPLOYING HEMMs. OF OPTIMAL SIZE.**

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UTILISATION OF FUND GENERATED FROM OUTSOURCED OC PATCHES (Contd..)

- **W.B.GOVT. WILL BENEFIT BY Rs. 100 Cr. APPROX. BY WAY OF ADDITIONAL CESS / ROYALTY FROM OC PATCHES ALONE WHEN ALL SUCH PATCHES ARE IN OPERATION TO PRODUCE ABOUT 6.0 Mt./ANNUM.**
- **THE PROFIT GENERATED FROM OC PATCHES WILL BE UTILISED FOR INVESTING IN WEST BENGAL FOR MODERNISATION OF MINES.**

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**FUTURE OC PATCHES TO BE WORKED BY
OUTSOURCING FOR REVIVAL OF ECL**

SL. NO.	NAME OF O.C.PATCH	COAL RESERVES (L.Te)	LAND TO BE PURCHASED (ACRES)
1	SANGRAMGARH SALANPUR AREA	18.23	
2	DAMALIA SATGRAM AREA	8.70	71.00-GOVT. 6.00 PVT.
3	NAKRAKONDA 'B' BANKOLA AREA	48.30	157.67-PVT. 23.79 -PATTA 79.89-GOVT.
4	HURA 'C' RAJMAHAL AREA	30.00	41.99
5	SONEPUR BAZARI 'A' SONEPUR BAZARI AREA	23.76	140.79(UKHRA FARMING)
6	SONEPUR BAZARI 'B' SONEPUR BAZARI AREA	72.10	247
7	BHAKTANAGAR BANKOLA AREA	21.50	5.23 - GOVT 158.24-RAYATI
8	LACHIPUR KAJORA AREA	5.60	0.45 - GOVT 72.24 -RAYATI - 17.33 - ECL

**FUTURE OC PATCHES TO BE WORKED BY
OUTSOURCING FOR REVIVAL OF ECL (CONTD...)**

SL. NO.	NAME OF O.C.PATCH	COAL RESERVES (L.Te)	LAND TO BE PURCHASED (ACRES)
9	AVIRAMPUR OCP PANDAVESWAR	16.70	56
10	WESTERN EXTENSION KHOIRABAD SALANPUR AREA	1.17	4.5
11	NABAKAJORA KAJORA AREA	5.50	16.03 - GOVT 11.17 -RAYATI 33.37 - ECL
12	DALURBAND 'E' PANDAVESWAR AREA	0.80	-
13	SAMLA SEAM IN KHOTTADIH, PANDAVESWAR AREA	13.20	30
14	LOWER DHADKA NEAR RAMJIVANPUR, SODEPUR AREA	4.05	35
15	DUBESWARI PATCH SODEPUR AREA	1.80	27.17

PERFORMANCE OF HEMM

57

Percentage Availability & Utilisation of HEMM (November)

	% Availability			% Utilisation*		
	CMPDI Norms	03-04	04-05	CMPDI Norms	03-04	04-05
Dragline	85	86.63	93.73	73	76.06	83.83
Shovel	80	70.15	71.93	58	38.39	42.18
Dumper	67	61.34	62.66	50	30.95	34.07

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REASONS FOR LOW UTILISATION OF HEMM

59

- **Haul road constraints at most of the OCPs.**
- **Inadequate infrastructure facilities at smaller mines.**

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- Dumpers & Shovels having total capacity of about 15.82% and 20.92% respectively have completed their lives in years and hours.

As on 30.11.04

Sl. No.	Equipment	Life in Hours	Total No.	Equipment within life	Equipment completed life	Total Capacity M.M3	Capacity of HEMM within Life M.M3	Capacity of HEMM completed Life M.M3
1	DUMPERS	12000-50000	331	223	108	55.07	46.36 (64.18%)	8.71 (15.82%)
2A	ELECTRIC SHOVELS	36000-100000	36	28	8			
2B	HYDRAULIC SHOVELS	10000-30000	65	30	35			
2	TOTAL SHOVELS		101	58	43	55.05	43.53 (79.08%)	11.52 (20.92%)

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- Large number of equipment outlived their lives, but still under use.

	NUMBER OF HEMM		
	Already Surveyed off	Under survey off	Total
DUMPERS:			
85 Te.	8	0	8
35 Te	60	61	121
SHOVELS:			
12 M ³ Hyd	2	0	2
3.8/4 M ³	9	14	23
5 M ³	5	4	9
DOZERS:			
320/410 HP	12	4	16
DRILLS:			
160 mm	2	0	2

OB TARGET FOR 2003-04 TO BE REVISED

Fig. in M.Cu.M

	2 0 0 2 - 0 3	2 0 0 3 - 0 4	
		B . E .	R . E .
D e p a r t m e n t a l	3 1 . 5 2	3 8 . 4 0	3 2 . 0 0
C o n t r a c t u a l	0 . 5 1	0 . 1 0	3 . 0 0
T o t a l	3 2 . 0 3	3 8 . 5 0	3 5 . 0 0

With the completion of life of 7 Nos. shovels and 38 dumpers, excavation and transport capacities have been substantially reduced making it difficult to even maintain OBR at last year's level.

ECL will strive to achieve 32 M.Cu.M departmentally and another 3 M.Cu.M from contractual equipment (started from Sept'03) making a total of 35 M.Cu.M.

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ACTION TAKEN FOR IMPROVING % UTILISATION OF HEMM

64

a) Action Plan is being prepared for construction and maintenance of haul roads to match with other efficient Open Cast Projects.

b) Procurement action taken for replacement of following HEMM for an estimated amount of Rs. 44.50 Crore.

- 10-12 Cum Loader - 1No.
- 85T Dumper - 1No.
- 3.6 Cum Shovel - 2 Nos.
- 35T Dumper - 32 Nos.
- 320/410 HP Dozers - 6Nos.
- 160mm Drill - 1 No.

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c) Tendering for 2 nos. of 12 M³ Hyd. Is under process.

d) Requirement of float assemblies for HEMMs has been finalized and approved and are under procurement.

e) Auxiliary equipments and necessary tools and tackles are being provided to improve infrastructure facilities at smaller mines.

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