Overview of Coal Sector in India

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Introduction

Coal is the key contributor to the Indian energy scenario. It meets more than 50 per cent of the current total commercial energy needs of India. Out of the four major fuel resources in the country, viz. oil, natural gas, coal and uranium, coal has the largest domestic reserves. A far large percentage of coal demand in the country is met by domestic production as compared to other major fuels like oil and natural gas. The scenario is expected to remain the same in the foreseeable future unless alternative energy sources occupy centre stage.

Role of the Ministry of Coal

The Ministry of Coal (MoC) has the overall responsibility of determining policies and strategies in respect of exploration and development of coal reserves, as also laying down general guidelines for production, supply and distribution of coal. Actual implementation of various projects and activities is carried out by the Public Sector Enterprises (PSEs), Coal India Limited and Singareni Collieries Company Limited under the overall supervision of the Ministry. The prices for sale of coal are also decided by the PSEs themselves in accordance with the powers delegated to them under the Collieries Control Order 2000. The Coal Controller's Organisation (CCO) is a subordinate office of MoC having its headquarters at Kolkata. The CCO discharges various statutory functions such as checking of quality of coal; adjudicating claims on grade; and collection and publication of statistical information on coal and lignite. MoC appointed (January 2005) CCO as the nodal agency for monitoring the production of coal blocks allocated for captive mining.

The Geological Survey of India (GSI) and Mineral Exploration Corporation (MEC) undertake prospecting in areas that could potentially have coal resources. Such prospecting is funded by the Government of India. Detailed exploration is entrusted to CMPDIL, a subsidiary of CIL which has a capacity and equipment to carry out drilling. Based on the detailed drilling it prepares geological reports for a blocked area after the result of regional/ promotional drilling has been analysed which in turn forms the basis of planning and design of mines, preparation of mine plans and deciding the feasible mines capacity that can be sustained for the reserves in the block.

As of now, there is no single window fast track clearance system to expedite various statutory clearances except in case of Ultra mega power projects awarded under the tariff based competitive bidding where Power Finance Corporation Limited has been designated as the nodal agency under the Ministry of Power, GoI for facilitating various clearances.

Coal India and its subsidiaries

Even after liberalization in 1991, the coal sector remains largely a monopoly. Under the provisions of the Coal Mines (Nationalization) Act 1973, only public sector companies can mine coal. The coal industry was reorganized into two major public sector companies, namely coal India Limited (CIL) which owns and manages all the old Government-owned mines of National Coal Development Corporation (NCDC) and the nationalized private mines and Singreni Colliery Company Limited (SCCL) which was in existence under the ownership and management of Andhra Pradesh State Government at the time of the nationalization.

Coal India Limited (CIL) is a holding company and has the following seven production subsidiaries and an eighth subsidiary, CMPDIL, that provides technical support to the seven production subsidiaries.

- Bharat Coking Coal Limited (BCCL)
- Eastern Coalfields Limited (ECL)

- Northern Coalfields Limited (NCL)
- Central Coalfields Limited (CCL)
- Western Coalfields Limited (WCL)
- South Eastern Coalfields Limited (SECL)
- Mahanadi Coalfields Limited (MCL)
- Central Mine Planning & Design Institute Limited (CMPDIL)
- North Eastern coalfields Limited

Further, in 1976 and subsequently in 1993 additional provisions were enacted to allow coal mining for captive end use for steel, power, cement and to permit the exploitation of isolated small patches of agencies approved by State Governments. The coalmines operated by the Tata Steels and Indian Iron & Steel Company were allowed to remain as non-government coal producers even under the Nationalization Act (IISCO was subsequently nationalized in 1975-76 whereby TISCO was left as the only non-governmental coal producer).

Another coal mining company, Neyvelli Lignite Corporation (NLC), was incorporated in 1956 as a public sector enterprise directly under the Ministry of Coal which is entirely devoted in mining of lignite coal. The company headquarters are in Neyvelli in Tamil Nadu.

Coal Reserves

Coal Reserves in India as per Indian Standard Practice (ISP) guidelines (ISP does not distinguish between resources and reserves) are classified under three categories viz. 'Proved', 'Indicated', and 'Inferred' geological reserves.

- 'Proved' geological reserves represent resource base with the highest confidence. The delineated tonnage within an area falling within a radius of 200 metre around boreholes is categorised as 'Proved' geological reserves. 'Proved' geological reserves can be produced only on the completion of detailed exploration.
- 'Indicated' geological reserves comprise that material occurring within a radius of 1,000 metre around boreholes taken up for regional and detailed exploration. While estimating 'Indicated' geological reserves, qualitative information obtained from the regional exploratory boreholes are projected in the 'Indicated' Geological Reserve category.
- 'Inferred' geological reserves comprise that material occurring within the influence area beyond 1,000 metre and upto 2,000 metre from the point of observation.

Addition to the national inventory of coal

With a view to enhance the areas of coal reserves by 50 billion tonne (BT) in next 20 years, GoI laid down programme of regional and promotional exploration. It was proposed to add 5 BT in X Plan and 7.5 BT thereafter upto 2026-27.

In fact, over the last five years, the coal reserves have increased by 33 BT as could be seen from the following table.

As on	Geological Resources of Cool (In MT) in the country

	Proved	Indicated	Inferred	Total
1.1.2006	95,866	119,769	37,666	253,301
1.4.2007	99,060	120,177	38,144	257,381
1.4.2008	101,829	124,216	38,490	264,535
L4.2009	105,820	123,470	37,920	267,210
1.4.2010	109,798	130,654	36,358	276,810
1.4.2011	114,002	137,471	34,390	285,863

As of 1st April 2011, the total Geological Reserve (GR) of coal in India was 2,85,862.20 million tonne (MT), out of which 1,14,001.60 MT was in the 'Proved' category, 1,37,471.10 MT was in the 'Indicated' category, 33,639.59 MT was in the 'Inferred' category and 749.92 MT was in the 'Inferred mapping' category. At current level of production of about 550 MTPA the resources of coal in the country will last for more than 100 years. Also, exploration is a continuous process and new resources get added year on year.

Characteristics of Indian Coal

- Indian Coals are inherently of poorer quality, with high ash and low calorific values. Requirements of coking coal from the Steel sector cannot be substantially met with these coals alone.
- There is a general mismatch in the location of Coal deposits and there major consumption centers, leading to long distance transportation and related high transportation costs.

Production of coal

- The Government has reviewed the production status of coal in the month of May 2011 as well as in July 2011. As against the target of 98.660 Million tones during the first quarter of the current year i.e. April-June 2011, the actual production by CIL was 96.305 Million tones which is about 98% of the target. The main reasons for marginal shortfall in achievement of target include excessive rainfall, curfew and other disturbances caused for eviction drive, frequent bands and agitations by locals, trade unions and political leaders, land acquisitions as well as R&R issues, delay in supply of equipments and evacuation problems in Talcher Coalfields etc.

- The Ministry of Coal has taken steps to expedite Environment & Forestry clearances, pursue with Ministry of Railways for enhancing availability of rail rakes and approach State Government for necessary assistance in land acquisition and in problems relating to law and order. In addition, a series of steps have been taken by Coal India Ltd. and its subsidiaries for augmenting coal production which include (i) increasing the efficiency of the equipments, regular monitoring, mechanization as programmed and strict supervision of the existing mines and ongoing projects. (ii) Capacity addition from new and future projects (iii) Consistent efforts for resolving issues of environmental & forestry clearances, land acquisition and law and order problems.

Annual growth rate of coal sector

The cumulative annual growth rate (CAGR) of coal production during 2007-08 to 2010-11 is 3.92% as against the revised target of 7.89% fixed during mid-term appraisal carried out by the Planning Commission. The annual target of raw coal production in the country during the XI Plan, actual production and the rate of growth are as under: -

Year	Annual Target (BE)	Actual Production	Rate of Growth of Production (%)
2007-08	460.50	457.082	6.1
2008-09	497.29	492.757	7.8
2009-10	532.33	532.042	8.0
2010-11	572.37	533.694	0.2
2011-12	554.00	413.914 (upto January, 2012)	(-)2.5%

Coal supply

- As a result of economic growth, there is considerable increase in coal demand in the country. This has resulted in pressure both on government companies as well as captive blocks to enhance production. The major constraints that are adversely affecting coal production and availability are land acquisition, related rehabilitation and resettlement (R & R) issues, delay in forestry and environment clearances which adversely affect timely implementation of projects.
- The Ministry of Coal has been taking up these issues with the concerned Ministries as well as with the State Governments from time to time in order to overcome the constraints coming in the way of increasing production, to meet the growing demand. The Government has taken steps to enhance exploration activities to increase the inventory of proved coal reserves. A number of new projects have been taken up in public sector coal companies and a number of captive blocks have been allotted to both public and private sector companies for augmenting production from domestic sources. Coal India Limited (CIL) is also working towards acquiring

Demand for coal

- India is the third largest consumer of coal globally. It has a negligible share in the global coal trade. Out of the planned 78537MW of capacity addition in the eleventh plan, coal based capacity addition is expected to be 52095MW, which accounts for the two third of the total capacity addition. As of June 2007 coal had the maximum share of 53.4% among the major fuels used in power generation.
- Coal demand has been steadily increasing because of various proposed projects based on coal. Out of 10 ultra mega power plants proposed,6 projects are based on imported coal and the rest 4 are based on pit head based. The coal import requirement for the Krishnapattnam UMPP is estimated to be 12 to 15 MTs per annum. Sasan UMPP also requires a supply of 15mtpa of coal which it will source from the Chattrasal captive block. NTPC is the largest consumer of coal in India. In 2006 and 07 its consumption was about 113.63 MT out of which 111.2 MT accounts for domestic and the rest 2.43 MT of imported coal.
- CIL projections for 2024-25 indicate coal requirements for captive power generation to be in excess of 100MT. The coal ministry is planning to allot 53MT per annum of coal as long term linkage to 224 CPPs, which account for about 9211MW of capacity in the steel, cement and other sectors. Captive coal accounts for less than 7 percent of the total coal supply and it is mainly for sugar industries.

The Planning Commission projected a demand of 731.10 MT of coal for the terminal year of the Eleventh Plan, i.e. 2011-12, based on a cumulative annual growth rate (CAGR) of 9.7 per cent. In the mid-term appraisal, the Planning Commission revised the demand for coal to 713.24 MT for the terminal year based on a CAGR of 8.98 per cent.

- **Demand for coal by the power sector**

Coal demand of 483 MT(6 This excludes projections for Imports of coal and those required by captive power plants (CPPs) as these are considered under separate heads) for the power sector for 2011-12 based on an estimated capacity addition of 46,635 MW by the coal-based power plants was envisaged. In the mid-term appraisal of the Eleventh Plan, the coal demand was revised downwards to 473 MT due to delays in commissioning of power projects. The Central Electricity Authority

(CEA) had indicated that the projections for coal-based power generation would have to be reduced from 690 to 630 billion units for 2011-12 as a shortfall of about 165 per cent was expected in the capacity addition of coal-based power generation in the Eleventh Plan.

- **Demand of coal by the steel sector**

The Planning Commission projected the coking coal demand for the steel sector as 68.50 MT (indigenous 23.78 MT and import 44.72 MT) for 2011-12, based on a hot metal(7Liquid pig iron which is used for production of steel) production programme of 70.30 MT. In addition to this, the steel sector projected a requirement of 29.72 MT of non-coking coal for captive power plant. The estimation remained the same at 68.50 MT (indigenous 26.02 MT and import 42.48 MT) for the coking coal in the mid-term appraisal.

- **Demand of coal by the cement sector**

The Planning Commission projected a coal demand of 31.90 MT for 2011-12, based on a total capacity projection of 251.23 MT in the cement sector, including capacity addition of 118 MT. In addition to this, the cement sector projected a requirement of 18.25 MT of coal for captive power plants. The projected requirement was increased to 33.35 MT in the mid-term appraisal with a cement production target of 262.61 MT.

The following table shows demand coal from different sectors:

Sector	IX Plan 2001-02	X Plan 2006-07	XI Plan 2011-12	XII Plan 2016-17
Power	248.13	317.14	469	617
Steel	28.43	37.21	40	40
Cement	14.85	24.56	24	25
Fertilizer			5	5
Captive Power	17.41	28.26	32	37
BRK & Others	42.46	49.15	50	56
Total	**351.28**	**460.50**	**620**	**780**

- **Domestic supply of coal**

The Planning Commission envisaged coal production to reach 680 MT (520.50 MT for CIL) in 2011-12. The incremental production envisaged was 247.50 MT as against 104.71 MT in the Tenth Plan. CIL was expected to add 156.70 MT, Singareni Collieries Company Limited 3.30 MT and captive blocks 86.53 MT.

In the mid-term appraisal, the Planning Commission revised coal production target from 680 MT to 629.91 MT (520.50 MT to 486.50 MT for CIL) for 2011-12, mainly because 17 major projects of CIL, which were to contribute 100.65 MT were now expected to contribute only 46.72 MT due to delays in getting necessary forest and environmental clearances.

- **Supply of coal by CIL**

At present, CIL contributes about 81.10 percent of the total supply of coal to various consumers in the country. CIL supplies coal to various consumers as per the New Coal Distribution Policy (NCDP) 2007 which came into force from 18 October 2007. The new policy envisaged distribution of coal mainly through two channels - Fuel Supply Agreements (FSAs)(8All the existing linkage holders of erstwhile core and non-core sectors not having FSAs were required to enter into FSA with the coal companies. The concept of core and non-core sector was discontinued after NCDP 2007) at notified prices to be fixed and declared by CIL and e-auction. The balance consumers, i.e. those with requirements upto 4,200 tonnes per annum, were to be supplied coal through the agencies nominated by the State Governments at notified prices of CIL plus actual freight and service charge.

Import of coal

The import of coal, both coking and non-coking is progressively increasing as can be seen from table below.

	Coking coal		Non Coking coal		Total	
	(Fig in MT)	(INR in Crore)	(Fig in MT)	(INR in Crore)	(Fig in MT)	(INR in Crore)
Year	Quantity	Value	Quantity	Value	Quantity	Value
2006-07	17.877	10180.60	25.204	6508.00	43.081	16688.60
2007-08	22.029	12102.50	27.765	8635.80	49.794	20738.40
2008-09	21.080	22614.00	37.923	18726.80	59.003	41340.80
2009-10	24.690	2013L10	48.565	19048.90	73.255	39180.00
2010-11	19484	20862.10	49.434	20687.50	68.918	41549.60

In the year 2011-12, the total import of coal in India was 118 MT and the figure is estimated to touch 161 MT for 2012-13.

The different grades of coal preferred by different consumers and variations in the paying capacity of consumers provide an ideal setting for a "market" to develop in the coal sector, further, in keeping with India's size of deposits and the level of production/consumption India's coal sector should integrate more closely with the world coal market for a competitive coal industry to develop.

The present import policy allows coal to be freely imported under Open General License by the consumers themselves considering their need and exercising their own commercial prudence. Coking coal is mostly imported from Australia by the steel companies on quality considerations. Similarly, non-coking coal is mostly imported by the power and cement companies from South Africa and Indonesia on cost and quality considerations.

More than 60 per cent of India's thermal coal imports is from Indonesia. Indonesian coal was preferred over Australian and South African coal as a discount of about 15 per cent was allowed by the Indonesian Government. However, in June 2011, the Indonesian Government decided to link the price of coal with a benchmark price based on international price of coal and applied it retrospectively to all contracts. All mining companies were directed to modify their old contracts by September 2011. This resulted in increase in the price of Indonesian coal (originally 536 per tonne free on board) by 10 per cent. This would have an adverse impact on the cost of production and profitability of the importers in the country, especially the power utility companies. The domestic supply of coal has to increase to safeguard against the vagaries of the international coal prices.

Auction for allocation of coal mines

- The Mines and Minerals (Development and Regulation) Amendment Act, 2010 has been passed by both the Houses of parliament and it has been notified in Gazette of India (Extraordinary) on September 9, 2010. The Amendment Act provides for granting of reconnaissance permit, prospecting license or mining lease in respect of an area containing coal or lignite on such terms and conditions as may be prescribed to a company engaged in:-

i. production of iron and steel
ii. generation of power
iii. washing of coal obtained from a mine, or
iv. such other end use as the Central Government may, by notification in the Official Gazette, specify. The State Government shall grant such reconnaissance permit, prospecting licence or mining lease in respect of coal or lignite to such company as selected through auction by competitive bidding under this section provided that the auction of competitive bidding shall not be applicable to an area containing coal or lignite.

- where such area is considered for allocation to a Government company or corporation for mining or such other specified end use;
- where such area is considered for allocation to a company or corporation that has been awarded a power project on the basis of competitive bids for tariff (including Ultra Mega Power Projects).

- The guidelines are under finalization in consultation with the stakeholders.

Development of coal blocks

- 216 coal blocks with geological reserves of about 50 billion tonnes have been allocated to eligible public and private companies under the Coal Mines (Nationalisation) Act, 1973. Out of that, 24 coal blocks, have been de-allocated. Out of de-allocated coal blocks, two coal blocks were re-allocated to eligible companies under the said Act. In view of above, the net allocated blocks are 194 coal blocks with geological reserves of about 44.44 billion tonnes. Out of these 28 coal blocks have come into production. The rest of the blocks are in various stages of development.
- Development of coal blocks involves a gestation period of 3 to 7 years for reaching the production stage and another two to three years for reaching the optimal production capacity, the responsibility of developing the coal block as per the prescribed guidelines and milestones rests entirely with the allocattee company. In the terms and conditions of the allocation letters, it is categorically mentioned that in the event of willful delay in the development of coal blocks and in setting up of the end use project, the Govt, would take appropriate action to de-allocate the said block. Government periodically monitors and reviews the development of allocated blocks as well as end use plants by the allocattee companies in the review meetings. Wherever delays are noticed, Government issues show cause notices and advisories to such allocattees cautioning them to bring the coal blocks into production as per the guidelines/milestones chart. The Coal Controller's office also monitors on regular basis the achievement of different milestones. Based on the recommendations made by the Review Committees from time to time, 24 coal blocks have been de-allocated till date.

- The year-wise allocation of captive coal blocks to the government companies, private companies and Ultra Mega Power Projects (UMPPs) as on March 31, 2011 is given below:

Year-wise allocation of coal blocks for captive mining

Year of allocation	Govt. Companies		Private Companies		Ultra Mega Power Projects		total	
	No. of Blocks	GR (in MT)	No. of Blocks	GR (in MT)	No. of Blocks	GR (in MT)	No. of Blocks	GR (in MT)
Upto to 2005	29	6294.72	41	3336.88	0	0	70	9631.6
2006	32	12363.15	15	3793.14	6	1635.24	53	17291.53
2007	34	8779.08	17	2111.14	1	972	52	11862.22
2008	3	509.99	20	2939.53	1	100	24	3549.52
2009	1	337	12	5216.53	3	1339.02	16	6892.55
2010					1	800	1	800
Total	**99**	**28283.94**	**105**	**17397.22**	**12**	**4846.26**	**216**	**50527.42**
(GR - Geological Resources)								

Transportation of coal

An efficient coal transport system is critical since coal is consumed in large quantities all over the country while most of the coal production is focused in a few states. Further, imports of coal are dependent on capacities of ports and railway infrastructure. The Planning Commission emphasized on the need for matching the growth of infrastructure with the proposed growth in coal production in the Eleventh Plan. Primary modes of transportation of coal in India are railways, ports and roads. However, it is dominated by the Railways which transported about 216 MT in 2010-11 and is followed by roads which transported 112 MT in the same period.

New Coal Distribution Policy

The government has approved a new Coal Distribution Policy which seeks to facilitate supply of assured quantities of coal to various categories of consumers at pre-determined prices in a regime of enforceable obligations on the part of both the suppliers and consumers of coal. The new policy takes into consideration the regulatory regimes in which various sectors of the economy are functioning for classification of consumers and prioritization of coal supplies in terms of quantities. This policy also envisages an enlarged role for state governments in the supply of coal to a large number of small and medium industries. Under this policy, e-auction sale of coal will be re-introduced with certain modified features to encourage emergence of proper coal market in the country.

The key features of the new Coal Distribution Policy are as under :

- Classification of consumers and supply of coal thereof
- Letter of Assurance and Fuel Supply Agreements
- Introduction of e-auction sale of coal
- Efficiency norms
- Pricing of coal supplies

Chronology of the significant events in India's coal sector

Date	Event
1972 and 1973	Nationalisation of coal mines was done in two phases. In the first phase (1972), coking coal mines were nationalised. In the second phase (1973) non-coking coal mines were nationalised. Coal mines that could not be nationalised were allowed to be worked by private lease holders.
November 1975	Coal India Limited (CIL), a holding company, under the Ministry of Coal (MoC), was set up.
1976	The Coal Mines (Nationalisation) Amendment Act, 1976 was enacted which inter o//o terminated all the mining leases with the private lease holders, except those of iron and steel producers who were allowed by the Act to carry on coal mining.
14 July 1992	A Screening Committee was set up by MoC under the chairmanship of Secretary. (Coal) through an administrative order to consider applications made by various companies interested in captive mining and to allocate coal blocks for development, subject to the provisions of statutes governing coal mining. A number of coal blocks, which were not in the production plan of CIL and the Singareni Collieries Company Limited (SCCL), were identified in consultation with CIL/SCCL and a list of 143 coal blocks were prepared and placed on the website of the MoC for information of public at large.
June 1993	The Coal Mines (Nationalisation) Amendment Act, 1993 was passed which allowed Indian companies engaged in generation of power, in addition to the iron and steel producers, to carry out coal mining for their captive use. It also allowed washing of coal obtained from a mine at the pit head by private companies.
IS March 1996	Cement sector was notified as an end use by inserting an enabling provision in the Coal Mines (Nationalisation) Act.
February 1997	The Cabinet approved a proposal to amend the Coal Mines (Nationalisation) Act to allow non-captive coal mining by an Indian Company.
24 April 2000	The Coal Mines (Nationalisation) Amendment Bill 2000 was Introduced In the Rajya Sabha, seeking allocation of coal blocks to Indian companies for commercial miring. The said bill met with stiff opposition from the trade unions, who expressed concerns over the possibility of unscientific mining and labour exploitation. The bill is pending in the House.
28 December 2005	A. seven member Expert Committee on Coal sector Reforms constituted by the Gol to prepare a comprehensive roadmap for the modernisation of the coal sector submitted its report to the Prime Minister.
February 2006	The Government permitted 100 per cent Foreign Direct Investment under the Automatic Route for captive coal mining by companies in the power, iron and steel arid cement sectors and other eligible activities permitted under the Coal Mines (Nationalisation) Act.

12 July 2007	Production of synthetic gas obtained through coal gasification (underground and surface) and coal liquefaction were notified as specified end uses for the purpose of captive mining.
17 October 2008	The Mines and Minerals (Development and Regulation) Act (MMDR Act), 1957 Amendment Bill was introduced in the Parliament. It envisaged making the system of competitive bidding applicable to all minerals covered under the said Art.
08 September 2010	The MMDR Amendment Act, 2010 was enacted.

Some major impediments in increasing domestic availability of Coal

i. **Govt Monopoly on Coal Mining is diluting slowly:** There is need for coal mining sector to be opened for private investment. 180 coal blocks of coal has been allotted for private coal mining and 23 coal blocks are also in the pipeline .

ii. **Problem of Project approval :** Project approvals take unduly long time resulting in time and cost overruns. The processes need to be streamlined, simplified and made expeditious.

iii. **Issues with Department of Forests and Environment :** Considerable delay is experienced in getting the Environmental & Forestry clearance of coal projects.

iv. **Issues with State Governments :** Speedy Land acquisition and handing over of clear possession, Forestry clearances and issue related to Resettlement and Rehabilitation of project affected persons.

v. **Problems of Transport :** Wagon availability needs to be improved. Freight need to be rationalized. Besides, local law and order situation tends to adversely affect Coal transportation from pithead to Railway siding - as in CCL.

vi. **Problem of quality in Indian Coals :** Indian coal is inherently of poor quality with high ash and low calorific content.

Some possible ways ahead to overcome the impediments in increasing availability of coal

i. Induction of Private Sector in Coal mining, to bring about competition efficiencies and technological/managerial up-gradation.

ii. Switching to Mission mode for doubling the Coal production in 10 years.

iii. Streamlining the procedures for expediting the grounding of Coal projects with the State Governments and the concerned Central Ministries especially the Ministry of Environment and Forests.

iv. Enhancing the financial powers for CIL.

v. Revival of BCCL and ECL aided by one time financial support from the Government.

vi. Rationalisation of Rail Freights and addition to rolling stock to take care of coal movement.

vii. Import of low ash coking coal for Steel sector, which is not available indigenously, for blending with domestic coal.

viii. Acquisition of suitable coal mining interests abroad by CIL for supply to the country. CIL has taken initiative in forming a subsidiary 'Coal Videsh' for such purposes.

Coal Bed Methane/Coal Mine Methane-Current Status

- In pursuance to approved CBM Policy of the Government of India. Ministry of Petroleum & Natural Gas has allotted 5 CBM blocks in 1st round and 8 blocks in the 2nd round. All these blocks are at the exploration stage.

- Two blocks have been allotted for development by joint venture between ONGC & CIL and one block was allotted earlier to Great Eastern Energy Corporation Limited.
- A CBM project is under implementation at Moonidih & Sudamdih mines of BCCL. This project is to demonstrate commercial recovery of Methane and utilisation of recovered methane. The project cost is Rs. 76.85 crores and is funded by GoI/ UNDP/ GEF & S&T fund of Department of Coal, Govt. of India.
- Govt. has also allowed coal to Liquid and Coal to Gas base projects as end use for captive coal mining.

Issues and Concerns

- **Freight Rationalisation**: The coal sector depends heavily on the road and rail transport for movement of coal. The poor infrastructure in India in terms of road and rail connectivity, port development has a greater impact on overall logistics problems. The railways taking this advantage cross subsidise passenger tariff by charging extra for coal freight which increases the delivered price of coal at the thermal stations. It results in cost escalation upto 3 to 4 times which is not acceptable. Ultimately the burden is passed to the end consumers which serve no purpose. There must be some rationalise approach while calculating freight rates.The railways must find some alternative so as to use its idle capacity, thus lowering the freight cost by increasing the volume. It should have some long term commitment with the coal producers for movement of coal.
- **E-Auctioning of coal:** This is a good beginning by the ministry of coal. The introduction of spot market and futures trading in coal holds a lot of promise in coal trading. E-auctioning helps in price discovery of coal and reduces time and cost factor in a significant manner. The pricing based on first come first serve basis was faulty and lead to corruption and ineffectiveness.E-auctioning was introduced about 2 years back with the government allowing CIL to put about 10% of its production on auction but the process was suspended following a Supreme Court order on December 1st 2006. Coal India Limited is planning to e-auction 38 million tonnes of coal every year and about 3.2 million tonnes may be put up for auctioning every month. Under the e-booking scheme, buyers get their supply of coal at a fixed price to be notified in advance by coal companies. In case of e-auctioning, there is an undisclosed reserve price for coal, which is offered and the auctioned price is higher than the reserve price.
- **Deregulation:** The need for transparency, quality linked prices and enforcement of performance standards demands for deregulation of coal industry. The monopoly of state owned companies and their high handedness in terms of production and supply must go. The optimal allocation of coal blocks and mine development is need of the hour. The future scenario and the widening gap of demand and supply calls for deregulation of the coal industry. It will also help IPPs and MPPs to play a larger role in the coal industry.
- **Import Parity Pricing:** Changes in the prices of imported coal do not appear to have an impact on the domestic coal price. The recent rise in prices of imported coal due to several factors seems to have no impact on domestic pricing. Domestic price of coal has been stagnant for many years and the recent increase in price is just the adjustment against inflationary pressure. The pricing of coal even do not match with the cost of production. As India is planning more and more capacity addition in terms of ultra mega power plants (UMPP) which is based on imported coal, the import parity pricing of domestic coal is a must. Due to large variation in pricing, comparison in terms of tariff is not possible for a pit head based power plant and an imported one. There should be some mechanism so as to give due importance to international market price which reflects quality and effectiveness.

Overview of Coal Sector in India in 2010

- India is a major producer and consumer of energy: it is the world's eleventh largest energy producer, accounting for about 2.4% of the world's total annual energy production; the sixth largest energy consumer, accounting for about 3.7% of the world's total annual energy consumption; and primary energy demand has grown over the last thirty years at an average rate of 3.6% a year.
- Coal is the dominant commercial fuel, meeting half of commercial primary energy demand and a third of total energy needs. Demand is projected to grow to 758 MT in 2030 (Source: World Coal Institute)- only China's demand for coal is expected to outstrip India's. The power sector will be the main driver of India's coal consumption - currently around 53.3 (As on January 31, 2008, source: CEA) % of India's electricity is generated from coal.

- India has a long history of commercial coal mining covering nearly 220 years starting from 1774 by Sumner and Heatly of East India Company in the Raniganj Coalfield along the Western bank of river Damodar. However, for about a century the growth of Indian coal mining remained sluggish for want of demand but the introduction of steam locomotives in 1853 gave a fillip to it. Within a short span, production rose to an annual average of 1 million tonne (mt) and India could produce 6.12 mts. per year by 1900 and 18 mts per year by 1920. The production got a sudden boost from the First World War but went through a slump in the early thirties. The production reached a level of 29 mts. by 1942 and 30 mts. by 1946.

- With the advent of Independence, the country embarked upon the 5-year development plans. At the beginning of the 1st Plan, annual production went upto 33 Million Tonnes. During the 1st Plan period itself, the need for increasing coal production efficiently by systematic and scientific development of the coal industry was being felt. Setting up of the National Coal Development Corporation (NCDC), a Government of India Undertaking in 1956 with the collieries owned by the railways as its nucleus was the first major step towards planned development of Indian Coal Industry. Along with the Singareni Collieries Company Ltd. (SCCL) which was already in operation since 1945 and which became a Government company under the control of Government of Andhra Pradesh in 1956, India thus had two Government coal companies in the fifties. SCCL is now a joint undertaking of Government of Andhra Pradesh and Government of India sharing its equity in 51:49 ratio.

Nationalisation of Coal Mines

- Right from its genesis, the commercial coal mining in modern times in India has been dictated by the needs of the domestic consumption. On account of the growing needs of the steel industry, a thrust had to be given on systematic exploitation of coking coal reserves in Jharia Coalfield. Adequate capital investment to meet the burgeoning energy needs of the country was not forthcoming from the private coal mine owners. Unscientific mining practices adopted by some of them and poor working conditions of labour in some of the private coal mines became matters of concern for the Government. On account of these reasons, the Central Government took a decision to nationalise the private coal mines. The nationalisation was done in two phases, the first with the coking coal mines in 1971-72 and then with the non-coking coal mines in 1973.
- In October, 1971, the Coking Coal Mines (Emergency Provisions) Act, 1971 provided for taking over in public interest of the management of coking coal mines and coke oven plants pending nationalisation. This was followed by the Coking Coal Mines (Nationalisation) Act, 1972 under which the coking coal mines and the coke oven plants other than those with the Tata Iron & Steel Company Limited and Indian Iron & Steel Company Limited, were nationalised on 1.5.1972 and brought under the Bharat Coking Coal Limited (BCCL), a new Central Government Undertaking. Another enactment, namely the Coal Mines (Taking Over of Management) Act, 1973, extended the right of the Government of India to take over the management of the coking and non-coking coal mines in seven States including the coking coal mines taken over in 1971. This was followed by the nationalisation of all these mines on 1.5.1973 with the enactment of the Coal Mines (Nationalisation) Act, 1973 which now is the piece of Central legislation determining the eligibility of coal mining in India.

Coal India and its Subsidiaries

Even after liberalization in 1991, the coal sector remains largely a monopoly. Under the provisions of the Coal Mines (Nationalization) Act 1973, only public sector companies can mine coal. The coal industry was reorganized into two major public sector companies, namely coal India Limited (CIL) which owns and manages all the old Government-owned mines of National Coal Development Corporation (NCDC) and the nationalized private mines and Singreni Colliery Company Limited (SCCL) which was in existence under the ownership and management of Andhra Pradesh State Government at the time of the nationalization.

Coal India Limited (CIL) is a holding company and has the following seven production subsidiaries and an eighth subsidiary, CMPDIL, that provides technical support to the seven production subsidiaries.

- Bharat Coking Coal Limited (BCCL)
- Eastern Coalfields Limited (ECL)
- Northern Coalfields Limited (NCL)

- Central Coalfields Limited (CCL)
- Western Coalfields Limited (WCL)
- South Eastern Coalfields Limited (SECL)
- Mahanadi Coalfields Limited (MCL)
- Central Mine Planning & Design Institute Limited (CMPDIL)
- North Eastern coalfields Limited

Further, in 1976 and subsequently in 1993 additional provisions were enacted to allow coal mining for captive end use for steel, power, cement and to permit the exploitation of isolated small patches of agencies approved by State Governments. The coalmines operated by the Tata Steels and Indian Iron & Steel Company were allowed to remain as non-government coal producers even under the Nationalization Act (IISCO was subsequently nationalized in 1975-76 whereby TISCO was left as the only non-governmental coal producer).

Another coal mining company, Neyvelli Lignite Corporation (NLC), was incorporated in 1956 as a public sector enterprise directly under the Ministry of Coal which is entirely devoted in mining of lignite coal. The company headquarters are in Neyvelli in Tamil Nadu.

Role of Coal in Indian Energy Security

- COAL is the most important and abundant fossil fuel in India. It accounts for 55% of the country's energy need. The country's industrial heritage was built upon indigenous coal. Commercial primary energy consumption in India has grown by about 700% in the last four decades. The current per capita commercial primary energy consumption in India is about 350 kgoe/year which is well below that of developed countries. Driven by the rising population, expanding economy and a quest for improved quality of life, energy usage in India is expected to rise around 450 kgoe/year in 2010.
- Considering the limited reserve potentiality of petroleum & natural gas, eco-conservation restriction on hydel project and geo-political perception of nuclear power, coal will continue to occupy centre-stage of India 's energy scenario. With hard coal reserves around 246 billion tonnes, of which 92 billion tonnes are proven, Indian coal offers a unique ecofriendly fuel source to domestic energy market for the next century and beyond. Hard coal deposit spread over 27 major coalfields, are mainly confined to eastern and south central parts of the the country. The lignite reserves stand at a level around 36 billion tonnes, of which 90 % occur in the southern State of Tamil Nadu.

Coal Reserves in India (as on 1.1.2007) (in billion tonnes)

Type	TOTAL RESERVE	PROVED RESERVE	INDICATED RESERVE	INFERRED RESERVE
COKING	32	17	13	2
NON-COKING	255	98	119	36
TOTAL	287	115	132	40

Source: CIL

In order to achieve increased pace of drilling in non-CIL blocks, CMPDIL has identified additional blocks and drilling to the extent of 70,000 meters to be completed in 10th Plan. This is subject to approval in the mid-term review to be done by Planning Commission.

Coal Deposits found in the Country as per GSI

- As per the estimates of Geological Survey of India as on April1,2007, the geological coal resources of the country stand at 257.38 billion tonnes of which 99 billion Tonnes of reserves fall in proved category. During the period 2006-07 the actual production of coal was 430.86 million tonnes as against the projected demand of 474.18 million tonnes and actual coal offtake of 464.5 million tonnes.
- The gap between the demand and supply of coal in the terminal year 2011-12 of the Eleventh Plan is projected to be 51.10 million tonnes as against the actual gap of 33.64 million tonnes in the terminal year 2006-07 of the Tenth Plan.

Characteristics of Indian Coal

- Indian Coals are inherently of poorer quality, with high ash and low calorific values. Requirements of coking coal from the Steel sector cannot be substantially met with these coals alone.
- There is a general mismatch in the location of Coal deposits and there major consumption centers, leading to long distance transportation and related high transportation costs.

Coal Production in India

In country, the All-India (including that of Meghalaya) Coal production improved to 456.397 Mt (million tonnes) in 2007-08 from 430.832 Mt in 2006-07, thus growing at 5.93%. Lignite production has also witnessed a growth of 6.93% over previous year Contribution of Open Cast & Under Ground Mines (Coal) The contribution from OC mines continued to increase further whereas that from Under Ground (UG) mines declined. During 2007-08, All-India open Cast (OC) contribution has recorded 397.517 Mt (87.1%) as compared to 373.134 Mt (86.6%) during 2006-07. The corresponding figures for UG mines are 58.880 Mt (12.9%) and 57.698 Mt (13.39%) respectively in the two successive years under review. Thus production from OC mines achieved growth of 6.53% .

Coal Production & Production Plan

(Million Tonnes)

Source	**IX Plan 2001-02**	**X Plan 2006-07**	**XI Plan 2011-12**
CIL	279.00	350.00	445.00
SCCL	31.00	36.13	35.40
Other PSUs	2.08	2.40	
Private -TISCO	5.47	5.24	44.60
Captive Mining	4.00	6.73	
Meghalaya	4.10	4.50	
Total	**325.65**	**405.00**	**525.00***

- Due to limitations like funds, environmental clearances, land etc expected production is 515 mt (CIL-445, SCCL-35 and others 35).
- Given the proven abundant indigenous availability, lower cost of production, the infrastructure already developed for its utilization, and the extent to which Energy Security of the Nation already depends upon Coal, other fuels are in no position to replace it substantially in the foreseeable future.
- There is, therefore, a need to boost domestic production of Coal. Coal is not an option, it is an imperative for the Energy Security of the Country.

Coal reserves in different parts of India

State	Coal Resources in Million Tonnes			
	Proved	Indicated	Inferred	Total
Andhra Pradesh	8403	6158	2584	17145
Arunachal Pradesh	31	40	19	90
Assam	315	27	34	376
Bihar	0	0	160	160
Chhattisgarh	9570	27433	4439	41442
Jharkhand	36148	31411	6339	73898
Madhya Pradesh	7565	9258	2935	19758
Maharashtra	4653	2432	1992	9077
Meghalaya	117	41	301	459
Nagaland	4	1	15	20
Orissa	16911	30793	14295	61999
Uttar Pradesh	766	296	0	1062
West Bengal	11383	11879	4553	27815
Total	95866	119769	37666	253301

Coal Demand

- India is the third largest consumer of coal globally. It has a negligible share in the global coal trade. Out of the planned 78537MW of capacity addition in the eleventh plan, coal based capacity addition is expected to be 52095MW, which accounts for the two third of the total capacity addition. As of June 2007 coal had the maximum share of 53.4% among the major fuels used in power generation.
- Coal demand has been steadily increasing because of various proposed projects based on coal. Out of 10 ultra mega power plants proposed,6 projects are based on imported coal and the rest 4 are based on pit head based. The coal import requirement for the Krishnapattnam UMPP is estimated to be 12 to 15 MTs per annum. Sasan UMPP also requires a supply of 15mtpa of coal which it will source from the Chattrasal captive block. NTPC is the largest consumer of coal in India. In 2006 and 07 its consumption was about 113.63 MT out of which 111.2 MT accounts for domestic and the rest 2.43 MT of imported coal.

- CIL projections for 2024-25 indicate coal requirements for captive power generation to be in excess of 100MT. The coal ministry is planning to allot 53MT per annum of coal as long term linkage to 224 CPPs, which account for about 9211MW of capacity in the steel, cement and other sectors. Captive coal accounts for less than 7 percent of the total coal supply and it is mainly for sugar industries.

Coal Production

Almost all of India's 565 mines are operated by Coal India and its subsidiaries, which account for about 86% of the country's coal production. Current policy allows private mines only if they are 'captive' operations, i.e. they feed a power plant or factory. Most of the coal production in India comes from opencast mining, contributing over 83% of the total production.

Gap in Demand and Production

- A gap in demand and production already exists, .it is partly being met with imports, which are showing a downtrend in the short term.
- This gap is projected to grow to 55 million tonnes by end of X Plan (2006-07) and to 105 million tonnes by the end of the XI Plan (2011-12).
- Import-preferably through owned mines abroad should be a component of energy security policy, particularly for coking coal and low ash coal of higher grade for blending with poor Indian Coals.

Import of Coal

About 50 million tonnes (up to March, 2008) of coal was imported in 2007-08 . There will be a need to expand our production to 1.7 to 2 BT in the next 25 years as compared to around 490 mt right now. Coal demand is projected to grow to 1,267 mt by 2025 against an estimated supply of 1,134 mt. As per the present Import policy, coal can be freely imported (under Open General Licence) by the consumers themselves considering their needs and exercising their own commercial judgments. Coking coal is being imported by Steel Authority of India Limited (SAIL), Vizag, Tata Steel and other Cement sector manufacturing mainly to bridge the gap between the requirement and indigenous availability and to improve the quality of overall blend for technological reasons.

Export of Coal

India exports coal to the neighboring countries to meet their demand of coal. The traditional buyers of Indian coal are Nepal, Bangladesh and Bhutan. Export to Nepal and Bhutan is done in rupee exchange as per the protocol between the two countries and with Bangladesh it is done in US Dollar. Export of coal to the neighboring countries was earlier canalized through the Mineral and Metal trading Corporation, but for the last few years it has been decanalised. Export of coal by CIL is made through tender route. The quantum of coal exported by CIL during 2007-08(up to March'08) to the neighboring countries was 1.43 million tonnes and the same was 1.55 million tonnes during 2006-07.

Demand and Demand Projections for Coal

(Million Tonnes)

Sector	IX Plan 2001-02	X Plan 2006-07	XI Plan 2011-12	XII Plan 2016-17

Power	248.13	317.14	469	617
Steel	28.43	37.21	40	40
Cement	14.85	24.56	24	25
Fertilizer			5	5
Captive Power	17.41	28.26	32	37
BRK & Others	42.46	49.15	50	56
Total	**351.28**	**460.50**	**620**	**780**

- 54 % of the Country's Commercial Energy demand is met from Coal and
- Nearly 53.3 % of Power is generated from Coal.
- 78% of Coal dispatched is to the Power sector.
- Importance of coal in power generation is likely to continue in the Xth and XIth Plans and thereafter as well (through coal based Power Plants).

Coal linkages

The Linkages of coal demand is primarily done with the objective of planning of coal supplies, keeping in view indigenous coal resources as well as the need to supply fuel of appropriate quality to the consumers and at the same time making the most economic use of the available capacity for production and of coal. For thermal power stations, whether belonging to state or central generating stations coal linkage is given by Coal Ministry's standing committee on coal linkages.

The linkages are classified in two types:-

- Long term linkages
- Short term linkage

Standing linkage committee (Long Term) for power and cement sectors

- The consumers desiring linkage for supply of coal should apply for linkage to the SLC (long Term). The consumers should route the application through the concerned Ministry to the Chairman, SLC (LT). For example, for setting up a Power Plant, the application has to be routed through the Central Electricity Authority and Ministry of Power. In case of cement unit, it has to be routed through the Ministry of Industry, Ministry of Industrial Policy & Promotion.
- The SLC (LT) has the Additional Secretary in the Ministry of Coal as the Chairman. Other members of the SLC (LT). are representatives of CIL, representatives of SCCL, CMPDIL, Railways, Planning Commission, Central Electricity Authority, Ministry of power and representative of Ministry of Industry, Dept. of Industrial Policy & Promotion (as the case may be). The Committee decides the linkage of coal for sourcee of supply, quantum of coal and the made of transportation.

Standing Linkage Committee (Short Term) for power and cement sectors

- The Additional Secretary in the Ministry of Coal, Govt. of India is the Chairman of the Committee. Representatives of Coal India Limited, Central Electricity Authority, Ministry of Power, Railways, and Representatives of Singareni Collieries Co. Ltd. are the member of SLC (ST) for power sector. In SLC (ST) for cement sector besides Chief of Marketing of CIL, representatives of SCCL, Railways, Ministry of Industry, Dept.of Industrial Development are the other members.
- The committee meets in March, June, September and December each year to review the coal supplies to Power and Cement Sectors in the quarter and finalise the linkage to consumers in Power and Cement Sectors for the next quarter. Time to time adjustment/incorporation in the quarterly linkages is done by the Chairman's (ST). Minutes of the meetings are drawn and circulated to all concerned for implementation.

Coal Distribution

Classifications of consumers

As per New Coal Distribution Policy, there is no distinction of consumers such as core and non core in the new distribution policy .All consumers would be treated at par according to their merit and with regulatory provisions

Distribution and pricing of coal to different consumers

There is no policy change for the defence and railways sector. Their demand will be met in full at notified price as such. Independent power producers, captive power plants and fertilizer sector would have to sign fuel supply agreement (FSA) with the CIL and 100% of the quantity as per the normative requirement would be fulfilled. For other consumers 75% of the requirement would be fulfilled through FSA and the rest 25% will be sourced through e-auction or import of coal. All the existing linkage holders are required to enter into FSA with CIL or its subsidiaries. Small consumers whose annual requirement is less than 4200MTs are eligible to get coal through state nominated agencies. Units whose requirements are greater than 4200MTs would have to enter into FSA with CIL.

Replacement of linkage system by fuel supply agreements

All the linkage consumers having more than 4200MTs of coal requirement would have to enter into FSAs with coal companies not later than six months from a date notified by CIL. On opting out of this process, the consumers have the choice to source their coal through e-auction and state nominated agencies. Failure to enter into FSA will result into discontinuation of fuel supply.

Captive Coal Mining in India

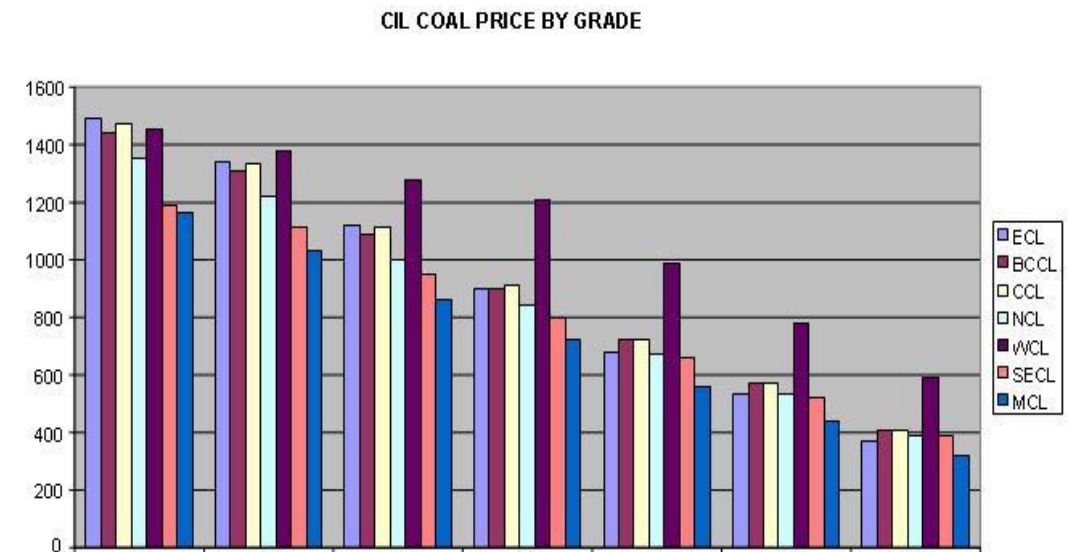
The amendments in the coal mines (Nationalisation) act,1973 allows the private companies for captive coal mining .The act also provides for joint ventures with a provision that the end user should hold at least 26 percent stake in the JV. The union government has permitted 100 percent foreign direct investment under the automatic route for captive consumption by the power, iron and steel industries. Specific criteria are laid out for captive coal mining. The Integrated Energy Policy (IEP) has recommended that small end users should be permitted to start group captive mining. There are some private mining operating in India as mentioned below:

- Bengal Emta Coal Minies Limited
- Integrated Coal Mining Limited
- Jindal Steel & Power Limited
- Hindaco Industries Limited
- Meghalaya
- Tata Iron & Steel Company
- Monnet Ispat Limited
- BLA Industries
- Castron Mining Limited

So far Govt. has identified 136 Coal blocks for captive mining under CIL .There are also 81additional blocks identified for private end use.

Pricing of Coal in India

Government of India deregulated the prices of Non-Coking Coal of grades A, B & C, Coking coal and Semi/Weakly coking coal on 22.03.1996. Subsequently, on 12.02.1997, Government of India deregulated the prices of non-coking coal of grade D, Hard Coke and Soft Coke and also allowed Coal India Ltd. to fix coal prices for grades E, F & G till Jan'2000 once in every six months by updating cost indices as per escalation formula contained in the 1987 report of the Bureau of Industrial Cost & Prices. With effect from 01.01.2000, CIL was free to fix the prices of such grades of coal in relation to the market prices. Pursuant of the above, CIL fixed the prices of deregulated coal from time to time and last such revision has been made on December12,2007.



	A	B	C	D	E	F	G
ECL	1490	1340	1120	900	680	530	370
BCCL	1440	1310	1090	900	720	570	410
CCL	1470	1330	1110	910	720	570	410
NCL	1350	1220	1000	840	670	530	390
WCL	1450	1380	1280	1210	990	780	590
SECL	1190	1110	950	800	660	520	390
MCL	1160	1030	860	720	560	440	320

Grade wise Basic Price of coal at the Pit-head excluding statutory levies for Run-of-mine (ROM) Non-Long-Flame Coal ,Long flame Coal, Coking Coal, Semi Coking Coal& Weakly Coking Coal ,direct feed Coal, Assam Coal for various subsidiaries of CIL (as in 2007) are as shown in the table on the left :

Some major impediments in increasing domestic availability of Coal

i. **Govt Monopoly on Coal Mining is diluting slowly:** There is need for coal mining sector to be opened for private investment. 180 coal blocks of coal has been

allotted for private coal mining and 23 coal blocks are also in the pipeline .

ii. **Problem of Project approval :** Project approvals take unduly long time resulting in time and cost overruns. The processes need to be streamlined, simplified and made expeditious.

iii. **Issues with Department of Forests and Environment :** Considerable delay is experienced in getting the Environmental & Forestry clearance of coal projects.

iv. **Issues with State Governments :** Speedy Land acquisition and handing over of clear possession, Forestry clearances and issue related to Resettlement and Rehabilitation of project affected persons.

v. **Problems of Transport :** Wagon availability needs to be improved. Freight need to be rationalized. Besides, local law and order situation tends to adversely affect Coal transportation from pithead to Railway siding - as in CCL.

vi. **Problem of quality in Indian Coals :** Indian coal is inherently of poor quality with high ash and low calorific content.

Some possible ways ahead to overcome the impediments in increasing availability of coal

i. Induction of Private Sector in Coal mining, to bring about competition efficiencies and technological/managerial up-gradation.

ii. Switching to Mission mode for doubling the Coal production in 10 years.

iii. Streamlining the procedures for expediting the grounding of Coal projects with the State Governments and the concerned Central Ministries especially the Ministry of Environment and Forests.

iv. Enhancing the financial powers for CIL.

v. Revival of BCCL and ECL aided by one time financial support from the Government.

vi. Rationalisation of Rail Freights and addition to rolling stock to take care of coal movement.

vii. Import of low ash coking coal for Steel sector, which is not available indigenously, for blending with domestic coal.

viii. Acquisition of suitable coal mining interests abroad by CIL for supply to the country. CIL has taken initiative in forming a subsidiary 'Coal Videsh' for such purposes.

Coal Bed Methane/Coal Mine Methane-Current Status

- In pursuance to approved CBM Policy of the Government of India. Ministry of Petroleum & Natural Gas has allotted 5 CBM blocks in 1st round and 8 blocks in the 2nd round. All these blocks are at the exploration stage.
- Two blocks have been allotted for development by joint venture between ONGC & CIL and one block was allotted earlier to Great Eastern Energy Corporation Limited.
- A CBM project is under implementation at Moonidih & Sudamdih mines of BCCL. This project is to demonstrate commercial recovery of Methane and utilisation of recovered methane. The project cost is Rs. 76.85 crores and is funded by GoI/ UNDP/ GEF & S&T fund of Department of Coal, Govt. of India.
- Govt. has also allowed Coal to Liquid and Coal to Gas base projects as end use for captive coal mining.

Issues and Concerns

There are several issues to be addressed upon in coal sector in India

- **GCV based Pricing:** The existing system of coal pricing which is based on the useful heat value (UHV) is outdated and could not meet the internationalbenchmark. Though the intent to use low ash content coal to provide some relief to consumers in terms of low tariff was a good thought out process at the time of inception, it holds no water in today's scenario. The boilers are designed to use low ash content coal and the use of low grade coal affects the performance of the boiler. While using UHV pricing, the environmental cost is not taken into consideration. The Gross calorific value based pricing is an internationally accepted benchmark and technology driven. It will incentivise to use washed coal in thermal power plants and minimise the adverse impact on the environment. The recent announcements by the government to charge 2-6%cess on high ash content coal is a good beginning in this step.
- **Freight Rationalisation**: The coal sector depends heavily on the road and rail transport for movement of coal. The poor infrastructure in India in terms of road and rail connectivity, port development has a greater impact on overall logistics problems. The railways taking this advantage cross subsidise passenger tariff by charging extra for coal freight which increases the delivered price of coal at the thermal stations. It results in cost escalation upto 3 to 4 times which is not acceptable. Ultimately the burden is passed to the end consumers which serve no purpose. There must be some rationalise approach while calculating freight rates.The railways must find some alternative so as to use its idle capacity, thus lowering the freight cost by increasing the volume. It should have some long term commitment with the coal producers for movement of coal.
- **E-Auctioning of coal:** This is a good beginning by the ministry of coal. The introduction of spot market and futures trading in coal holds a lot of promise in coal trading. E-auctioning helps in price discovery of coal and reduces time and cost factor in a significant manner. The pricing based on first come first serve basis was faulty and lead to corruption and ineffectiveness.E-auctioning was introduced about 2 years back with the government allowing CIL to put about 10% of its production on auction but the process was suspended following a Supreme Court order on December 1st 2006. Coal India Limited is planning to e-auction 38 million tonnes of coal every year and about 3.2 million tonnes may be put up for auctioning every month. Under the e-booking scheme, buyers get their supply of coal at a fixed price to be notified in advance by coal companies. In case of e-auctioning, there is an undisclosed reserve price for coal, which is offered and the auctioned price is higher than the reserve price.
- **Deregulation:** The need for transparency, quality linked prices and enforcement of performance standards demands for deregulation of coal industry. The monopoly of state owned companies and their high handedness in terms of production and supply must go. The optimal allocation of coal blocks and mine development is need of the hour. The future scenario and the widening gap of demand and supply calls for deregulation of the coal industry. It will also help IPPs and MPPs to play a larger role in the coal industry.
- **Import Parity Pricing:** Changes in the prices of imported coal do not appear to have an impact on the domestic coal price. The recent rise in prices of imported coal due to several factors seems to have no impact on domestic pricing. Domestic price of coal has been stagnant for many years and the recent increase in price is just the adjustment against inflationary pressure. The pricing of coal even do not match with the cost of production. As India is planning more and more capacity addition in terms of ultra mega power plants (UMPP) which is based on imported coal, the import parity pricing of domestic coal is a must. Due to large variation in pricing, comparison in terms of tariff is not possible for a pit head based power plant and an imported one. There should be some mechanism so as to give due importance to international market price which reflects quality and effectiveness.

Background Note on Coal Sector (October 2009)

Actual & Projected Coal production targets, actual production & demand during the 11 Plan

Production

Company	07-08 (RE)	07-08 Actual	08-09 (RE)	08-09 Actual	09-10 (BE)	11-12 (As per XI Plan)
ECL	30.50	24.06	31.00	28.14	31.00	46.00
BCCL	25.50	25.22	26.50	25.51	28.00	30.00
CCL	44.00	44.15	47.00	43.24	48.00	78.00
NCL	59.20	59.62	61.25	63.65	66.50	70.00
WCL	42.90	43.51	43.05	44.70	45.00	45.00
SECL	93.20	93.79	96.00	101.15	106.00	111.00
MCL	88.00	88.01	99.00	96.34	109.30	137.00
NEC	1.10	1.10	1.20	1.01	1.20	3.50
CIL-Total	**384.40**	**379.46**	**405.00**	**403.73**	**435.00**	**520.50**
SCCL	40.508	40.60	42.56	44.54	44.50	40.80

Other Public	1.97	2.02	1.71	1.83	1.92	2.52
Sec ##						
Private -Tisco	7.00	7.21	7.30	7.28	7.30	6.5
Captive Mining**	22.28	21.17	28.77	29.88	37.11	104.08
Meghalaya	5.60	6.54	6.50	5.67	6.50	5.6
All India	461.75	457.00	491.84	492.95	532.33	680.00

Note #f# includes IISCO, DVC, JSMDCL & JKML

** - Includes B-EMTA, ICML, JSPL. Hindalco, Monnet. BLA. CML, Panem, PIL & JNL

Actual and Projected Coal Demand targets, actual Coal Demand during the XIth Plan

S. No.	Sectors	07-08 (RE)	07-08 (Actual)	08-09 (BE)	08-09 (RE)	09-10 (BE)	11-12 As per XI Plan)
1.	Steel & Coke Oven	38.17	40.01	44.00	44.00	20.29	L 68.50
2.	Power (Utility)	334.80	333.44	373.00	373.00	397.54	483.00
3.	Power (Captive)	33.11	33.13	38.00	38.00	57.66	57.06
4.	Cement	15.24	19.32	25.00	25.00	25.69	31.91
5.	Sponge Iron	22.95	20.92	18.00	18.00	44.33	28.96
6.	BRK & Others	49.60	60.293	52.00	52.00	58.93	61.58
	Sub-Total	**455.69**	**467.38**	**506.00**	**506.00**	**604.44**	**731.00**

11th Five Year Plan on Coal Production

In the 11th five Year Plan document, the Coal demand projected by the end of XI Plan is 731.10 MT. The Cumulative Annual Growth Rate in coal demand during this Plan is projected at 9.7%. On the other hand, the projected domestic availability is 680.MT. There will be a gap of 51.10MT in 2011-12. This requirement would need to be met through imports. In case production from captive blocks does not come as envisaged, the quantity of imports would be higher. The Plan had laid stress on accelerated exploration; augmentation of drilling capacity; and capacity to assess coal reserves for rapid increase of coal production. The Plan had also recommended an independent coal regulator to oversee the price discovery mechanism, regulate upstream allotment, and exploit available coal blocks to yield coal, coal bed methane, mine mouth methane etc. It also mentioned streamlining of the process of e-auction of non-coking coal.

Comprehensive action Plan- CIL

I. As CIL has projected that they would not be in a position to fulfill their commitments. Ministry of Coal advised CIL on 29.01.2009 to prepare an "Action Plan" for increasing production and evacuation, stepping up acquisition of coal properties abroad and setting up a mechanism to closely monitor milestones achieved by Linkage/LOA holders within the stipulated period to actually work out the overall demand for finalization of commensurate production supply plan.
II. CIL has informed that out of 520.50 Mt projection of 2011-12 from CIL sources, planned projection from new projects is to the tune of 170.00 Mt. Some of the major new projects have already suffered abnormal delay due to delay in environmental and forest clearances. Delay in implementation of the new projects is likely to create a shortage of around 33.85 Mt which cannot be covered in any manner as implementation of none of the other projects can be advanced.
III. Under the circumstances, the only effort that can be made to make up the shortfall is to import the equivalent quantity of coal by CIL. This will amount to stepping up imports in phases for the next three years to reach a level of around 23 Mt by 2011-12 which is equivalent to 34 Mt of indigenous coal. Aggregate availability of coal including the possible imports may be to the tune of target set for CIL in the XI plan document.
IV. However, efforts are being made to meet the shortfall on account of CIL during the XI Plan period by expediting implementation of all the identified XI Plan projects. This will be possible provided land acquisition, environmental and forestry clearances are obtained in time for which all out efforts are being made.

Emergency Coal production plan

I. In view of increase in demand for coal, during the X Plan period, enhancement of coal production for CIL became essential. For quick implementation/commencement of coal production from projects, CIL prepared an Emergency Coal Production Plan (ECPP).
II. Salient features of this plan were as under:
    - 16 opencast projects/mines identified (3 in CCL, 6 in NCL, 3 in SECL & 4 in MCL) where production from existing mines/projects could be enhanced at a higher level yielding additional production of 71.30 Mt.
    - The identified expansion/new projects/mines had adequate reserves, mine capacity and mine geometry for enhancement of production.
III. During the preparation of the XI Plan document, all the mines including new / expansion projects including identified Emergency Coal Production Projects have been considered. While analyzing the status of implementation / contribution from those 16 Emergency Coal Production Projects, it is observed that delay in forestry/ environmental clearances has affected their implementation.
IV. In view of the above, it may be indicated that early obtaining of forestry/environmental clearances may help in planned implementation of identified XI Plan projects thereby helping CIL in achieving its targeted coal production. In that case, a separate Emergency Coal Production Plan may not be needed.

SCCL

SCCL has been surpassing the targets given to it for the last seven-years consecutively and has been taking care of the needs of the customers satisfactorily as per the given linkages. Moreover, it is setting itself higher targets year-on-year. Hence, there are no plans to go for emergency production plan.

New Coal Distribution Policy

A New Coal Distribution Policy (NCDP) has been formulated by the Ministry of Coal, which came into force w.e.f. 18.10.2007. Under this Policy, each sector/consumer has been treated on merit, keeping in view the regulatory provisions applicable thereto. The salient features of the Policy are:

I. The policy assures 100% supplies of coal to power, defence and fertilizer sector. It assures all genuine consumers coal availability as per their normative request.
II. The Policy specifically addresses the issue of supply of coal to consumers in small and medium sector since the classification of the consumers as core and non-core sector has been dispensed with under the New Policy. Small consumers are to receive coal through agencies notified by the State Governments.
III. As per the provisions of the Policy, coal distribution through e-auction was introduced by CIL with a view to pro-vide access to coal for such consumers who are not able to source coal through the available institutional mechanisms.

Position of supply of coal to various sectors during the 11th Plan

Position of supply of raw coal to various sectors from CIL sources during XI Plan

(Figs, in Mt)

Sector	2007-08		2008-09		2009-10 Annual Plan Target	2011-12 (TY) Working Group Supply Plan
	Target	Supply	Target	Supply		
Power	279.40	280.13	292.94	295.83	312.17	382.35
Steel	11.78	10.06	10.87	9.02	11.25	18.25
Cement	10.95	9.53	8.78	9.06	7.94	21.45
Others	83.77	75.61	92.42	87.33	105.64	98,45
Total off-take	**385.90**	**375.33**	**405.00**	**401.24**	**437.00**	**520.50**

Grant of Letter of Assurance to 12th Plan power projects

The Standing Linkage Committee (Long Term) has already authorized issue of Letter of Assurances to various power projects which are coming up during the XIth Plan. As per the decision of the SLC(LT) in its meeting held on 12.11.2008, Ministry of Power (MoP) has been requested to prepare a shelf of 12th Plan projects keeping in view the capacity addition programme, linkages/ LOAs already granted, coal likely to be available through coal blocks etc. The list from MOP is still awaited. On receipt of the list, action would be taken by this Ministry for considering authorization of LOA for the 12th Plan power projects.

Grant of Letter of Assurance to Sponge Iron and Cement sector consumers

SLC (LT) has already authorized more capacity addition in sponge iron sector than projected in the Working Group Report on Coal and Lignite during the XI Plan. Therefore, a. decision as to whether any further cases of sponge iron applicants are to be taken up during the XI Plan has to be taken by the Government. The matter is under examination in this Ministry.

Import of coal

Action Plan

I. Under the New Coal Distribution Policy (NCDP) notified by the Government in October 2007, CIL is required to meet the entire demand of coal in the country, if necessary by taking recourse to import for the deficit in indigenous coal availability. Coking coal is imported traditionally by the steel sector directly from the international market for more than last 30 years. Non-coking coal, which is mainly consumed by the power sector and to a large extent by cement and other industries, is also imported directly by the end users to supplement the supply received from indigenous sources - primarily from CIL.

II. Import of coal is done mostly by NTPC and other large power utilities and the services of MMTC and STC, both PSUs, are utilized for this purpose. In view of unprecedented situation with regard to, coal availability with power utilities as reflected by very low level stock, CIL was advised to import 4 million tonnes of coal for supply to power sectors during 2008-09. With due consultation with the ministry MMTC was engaged for import of coal for supply directly by them against firm demand placed by power utilities. After a series of meetings with the power utilities and CIL and also at the level of CEA positive indication -was received only from HPGCL, OPGCL and DVC for a total quantity of about 1 million tonne in 2008-09 & 1.4 million tonnes for the year 2009-10. Other utilities

did not show any inclination to import of coal through CIL. Against such demand for import of coal through CIL the actual import by MMTC was only to the tune of 0.289 million tonnes for HPGCL only OPGC and DVC did not place any firm demand on CIL for import of coal.

III. Arising out of a meeting taken by Dy. Chairman, Planning Commission in Jan, 2009, CIL was given a target to supply 318 MT of coal to the power sectors during 2009-10 - 312 MT from own sources and balance 6 MT would need to be met through import of 4 million tonnes (equivalent to 6 MT of indigenous coal). It was expressed that an urgent solution has to be found to the pricing issue with a possible solution for CIL to pool the price of domestic and imported coal and effect supplies to utilities at the pooled price. CIL also would ensure that imported coal did not exceed 10% of total allocation for the power plants. The quantity of coal to be imported by CIL would be calculated as difference between supply actually made by CIL in the particular year as compared to Annual Action Plan target fixed by the Planning Commission for CIL and the pooled price mechanism would also need to be confined only to non-coastal utilities.

IV. In order to fulfill the target, CIL is required to import 4 million tonnes for supply to the power sector in 2009-10 and thereafter during future years depending upon the projected demand vis-a-vis indigenous availability.

V. Keeping in view the fact that GIL needs to build up an appropriate organization to handle import directly since the present organization do not have the requisite expertise, a contractual arrangement needs to be in place where coal will be imported based on demand received from power utilities by going in for global tender in three different parts:
   a. For supply of coal as per specification on FOB delivery port
   b. Shipment of coal from delivery port to the Indian port inclusive of coal handling and stacking at the designated yards at or near the ports.
   c. Arranging transport of coal from stock at port end to the consumer end by rail including loading of coal in wagons and other activities like weighment etc.

VI. Goal would be supplied on FOR power station basis which is the practice prevailing for supply of imported coal and mechanism of quality inspection at various stages including at the destination end for commercial purpose would be put in place preferably through internationally reputed coal inspection agencies.

VII. Depending oh the demand, necessary arrangements need to be made with various port authorities both in public and private sector for unloading from ship an also allotment of space for stacking imported coal in transit before dispatch.

VIII. Price of imported coal as would be charged to the consumers on FOR power plant basis would be based on the price of indigenous coal of equivalent quality plus 10% for assured consistent quality of such imported coal on FOR Indian port. Inland transportation cost by rail would be charged extra on actual basis. In order to ensure charging equivalent indigenous coal price, pooled price mechanism needs to be implemented so as to absorb difference between aggregate actual cost of imported coal at Indian Port and price actually charged to the consumes @ of price of equivalent quality of coal plus 10%. The amount of difference would need to be spread over the entire quantity of indigenous non-coking/ thermal coal by way of an appropriate percentage, which would be reviewed and reset on quarterly basis.

IX. In the current financial year, the CIL propose to float global tenders separately for inter related activities after finalizing the quality parameters of imported coal for power plants in consultation with CEA. CIL also proposes to make use of the services of competent reputed and experienced consultant as advisor for handling import during the initial period of one or two years.

Import of coal by CIL

I. Keeping in view the existing commitments and expected coal production, CIL will be required to import coal to meet their FSA commitments. However, actual quantity of import would be known to CIL only when they conclude FSAs with all linkage/LOA holders/existing consumers. While FSAs with existing consumers, except power utilities, have been concluded, FSAs with others are likely to be signed in due course of time.

II. CIL has informed that keeping in view the estimated gap between CIL's production and commitments already made by CIL based on existing linkages/LOA, CIL has proposed to import 4 MT coal during 2009-10 which would increase over next three years. CIL has already been advised to work out a mechanism for import after taking the approval of their Board.

Import of coal by Power utilities:

With a view to augment coal supplies to power utilities, MOP fixes annual target of import by power utilities. During 2008-09, an import target of 20 MT was fixed against which about 17 MT was imported. During 2009-10, MOP has fixed a target of 28.70 MT to be imported by power utilities.

Allocation of Captive Coal Blocks

Background

I. Under the Coal Mines (Nationalisation) Act, 1973, coal mining was mostly reserved for the public sector. By an amendment to the Act in 1976, two exceptions to the policy were introduced viz., (i) captive mining by private companies engaged in production of iron and steel and (ii) sub-lease for coal mining to private parties in isolated small pockets not amenable to economic development and not requiring rail transport.

II. The Coal Mines (Nationalisation) Act, 1973 was amended from time to time and after the amendment in 1993, mining for captive consumption was permitted for generation of power, washing of coal obtained from a mine and other end uses to be notified by Government from time to time, in addition to the existing provision for captive coal mining for production of iron and steel. Under the powers conferred on the Central Government by Section 3 (3) (a) (iii) (4) of the Act, another Gazette Notification was issued on 15.03.1996 to allow captive mining of coal for production of cement. Production of syn-gas obtained through coal gasification (underground and surface) and coal liquefaction was notified as an end use for coal mining on 12.07.2007. Thus as per the provision of Section 3 (3) (a) (iii) of the Coal Mines (Nationalisation) Act, 1973, a company engaged in production of iron and steel, generation of power, production of cement, and production of syn-gas obtained through coal gasification (underground and surface) and coal liquefaction can do coal mining in India for captive consumption only.

Process of coal blocks allocation

Coal blocks are allocated to private companies and government companies under the following three processes:

a. **Under government company dispensation**

Applications for blocks earmarked for allocation through Government dispensation route are invited from Central/ State PSUs and processed in the Ministry based on certain criteria. Under this arrangement, allocations are determined on the basis of, inter-alia, preference to the States which have not been allocated any coal blocks earlier, priority to the host States in order to encourage value addition within the coal bearing State, past performance of applicants in developing coal blocks, proximity of coal blocks to the proposed end use projects, recommendation/support of State Government concerned etc.

b. **Under Captive use route**

The allocation of coal blocks to private parties is done through the mechanism of an inter-Ministerial inter-Governmental body called the Screening Committee. The Screening Committee is chaired by the Secretary (Coal) and has representation from Ministry of Steel, Ministry of Power, Ministry of Industry and Commerce, Ministry of Environment and Forest, Ministry of Railways, Coal India Limited, CMPDIL and the concerned State Governments. Allocations are decided taking into account, inter-alia, tech no-economic viability of end-use project, state of project preparedness, compatibility in terms of quality and quantity of coal in a block with the requirement of end user and track record of applicant company, recommendations of the State Government and Administrative Ministry concerned etc.

c. **Under Tariff based bidding**

Coal blocks are earmarked for power projects to be set up on the basis of tariff based competitive bidding system. Ministry of Power is required to identify the power projects, based on their recommendation; allocation of coal block is made by the Ministry of Coal.

Status of allocation of coal blocks

I. As on date, 201 coal blocks with geological reserves of about 45.954 billion tonnes have been allocated to the Govt/pfiyate companies. Out of 205 blocks, 3 blocks have been de-allocated and mining lease in case of one block has been declared void.. Sector-wise allocation of coal ' blocks is as below.-

Sector / End Use	No of blocks	Geological Reserves (MT)
A. Public Sector Undertakings		
I Power	54	18676.11
(a) Captive Dispensation -	31	7896.07
(b) Govt. dispensation	23	10879.93
II	40	7424.58
Ill	3	1492.30
Total (I + II+ III)	**97**	**27592.99**
B. Private Companies		
(a) Power	29	4925.67
(b) Iron and Steel	57.16	7316.77
(c) Small and Isolated	2	9.34
(d) Cement	6.84	502.09
(e) Ultra Mega Power Project	7	2607.24
(0 Coal-to-Liquid Project	2	3000.00
Sub-total	**104**	**18361.11**
Grant total	**201**	**45954.10**

II. Ministry of Coal had identified three coal blocks for allocation to Coal to Liquid project. The allocation was to be made on the basis of the recommendation of the Inter-Ministerial Group (IMG) headed by, the Member (Energy), Planning Commission as Chairman. Ministry of Coal called for applications from eligible companies through an advertisement. The recommendations of the IMG were examined and one coal block each has been allocated to Strategic Energy Technology Systems Ltd. and Jindal Steel & Power Ltd. for their Coal to Liquid projection 27th February, 20097

Production from allocated coal blocks

So far, production has commenced in 24 coal blocks and the production from these coal blocks for the year 2008-09 (upto March, 2009-Provisional) is 30.02 million tonnes as reported by Coal Controller's Office. The production from coal blocks allotted to both public and private sector during the terminal year of the current Five Year Plan i.e. 2011-12 is projected at 104 million tonnes. Many more coal blocks are likely to come into production in the 11th plan and the production from these blocks in the terminal year of the 11th plan is estimated to be about 104 MT.

Monitoring of allocated coal blocks

I. Ministry of Coal has constituted a Review Committee under the Chairmanship of Additional Secretary (Coal) to review the progress of development of coal/lignite blocks allocated and progress in setting up the end-use project. The review is undertaken on quarterly basis with all the coal block allocatees to assess the development/progress achieved by them. Action is taken against the companies where delay is found on their part by issuing necessary advisory and show cause notices. In case of willful delays on the part of allocatees, appropriate action is initiated for de-allocation of the block. So far 7 coal blocks have been de-allocated. The last review meeting was held on 22nd and 23' June, 2009. All the allocattees have been pressed upon to expedite the development of coal blocks and end-use projects. Further, the allocattees have been categorically cautioned that in case of willful delays, Govt. will initiate appropriate action for de-allocation. Accordingly, show-cause notices are being issued to 40 allocatee companies where abnormal delay is noticed. Advisory is being issued to 15 allocatee companies.

II. In a meeting held on 10.08.2009 with the State Minister in charge of Mining, MoS (I/C) for Coal had asked the State Govts. to constitute monitoring committees headed by Chief Secretaries to facilitate more expeditious development of coal blocks. The States have agreed to set up such committees.

III. The Coal Controller Organisation also do close monitoring of development of coal blocks. For this purpose, he obtains a quarterly report from the block allocatees. Based on which a comprehensive status report is prepared.

IV. A quarterly status report is also submitted to PMO on the development of coal blocks.

5.6 Identification of New Coal/ Lignite blocks for allocation

I. In consultation with CIL and NLC, the Ministry has identified 47 coal blocks with reserves of about 17721.52 million tonnes and 38 lignite blocks with reserves of about 6240.34 million tonnes. There are also 25 remaining coal blocks with reserves of about 7262.66 million tonnes from the existing 148 captive list. Ministry of Power was consulted on earmarking of coal blocks for power sector. A view needs to be taken on the mode of allocation to be followed in the light of the Report of the Standing Committee on Coal and Steel on the Mines and Minerals (Development & Regulations) Amendment Bill, 2008,

II. An exercise was carried out in 2006, and all those coal blocks, which were not included in the production plans of CIL for the Xlth Plan were withdrawn and offered for allocation to others. Thus, 48 coal blocks with GR of about 9.23 billion tonnes were taken out from CIL. In addition, 33 blocks with GR of about 10.80 billion tonnes were identified. These 81 coal blocks were offered for allocation. Out of these, 69 coal blocks have already been allocated. Allocation of three blocks could not be made because of intervention of courts. Allocation of eight coal blocks earmarked for power projects to be awarded through tariff based bidding is being finalized in consultation with the Ministry of Power.

III. CIL has now sought 138 additional coal blocks with GR of about 57.57 billion tonnes in order to maintain its production at the level of 2016-17. Also 47 new coal blocks with a GR of 17.72 billion tonnes and 38 lignite blocks with a reserves of about 6.24 billion tonnes have been identified for allocation to other players (non-CIL). In the light of the report of the Standing Committee on the Mines and Minerals (Development and Regulation) Amendment Bill, 2008, the decision of the Govt. on the process of allocation is awaited.

Amendment to MMDR Bill

a. With the progressive allocation of coal blocks, the number of coal blocks available for allocation is declining, while the number of applicants per block is increasing, as the demand for coal keeps rising. This has made selection of an applicant in respect of a block difficult and vulnerable to criticism on the ground of lack of transparency and objectivity. While efforts are on hand to continuously add blocks to the captive list, it is also expected that the demand for blocks would remain far ahead of supply. Therefore, there is ah urgent need to bring in a process of selection that is not only objective but also demonstrably transparent. Auctioning through competitive bidding is one acceptable selection process. Accordingly, a Bill to amend the Mines and Mineral (Development & Regulation) Act, 1957 seeking to introduce competitive bidding system for allocation of coal blocks for captive use was , introduced in the Rajya Sabha on 17.10.2008.

b. The broad features of the proposed bidding system are as follows:
    I. Bidding would be based on lump-sum amount system. The bid amount would be realised in installments over a period of 10 years.
    II. Competitive bidding is proposed to be in two parts: (i) technical bid and (ii) commercial bid. The technical bid would be qualifying in nature. It would essentially seek information about the credentials and capabilities of the bidder with respect to end use project and coal mine development project etc.

III. The commercial bid would ask the applicant to indicate a lump sum amount that he is willing to offer to the Government, in cash. The bid with highest value would be declared successful.
IV. In order to encourage value addition within the coal bearing State, preference would be given to a company which proposes to set up the end-use industry in the State in which the coal block is located, if its bid is within 5% of the highest bid and the company is willing to match the highest bid for the said block.
V. If the mine and the end use project are not developed in time in accordance with the milestones set for both, the allocated block will automatically stand de-allocated and the mining lease cancelled. Also, the upfront payment made by the allocatee shall stand forfeited.
VI. It is also proposed to allow replacement of coal supply linkages, if any, from Government coal companies with captively mined coal to the successful bidders.
VII. The receipts generated by competitive bidding will accrue to the State Government where the coal block is located.
VIII. Both fully explored and regionally explored blocks would be offered for competitive bidding.
IX. In respect of regionally explored blocks, exploration shall be carried out by the allocatee as per the Guidelines laid down by the Govt. in this regard.

c. The Bill was referred to the Standing Committee on Steel and Coal for detailed examination. The Standing Committee has since submitted its repot on 19/02/2009 to the Parliament. The Standing Committee has made certain recommendations and suggested to have consultations with the stakeholders and State Governments. To discuss the recommendations of the Standing Committee, Secretary (Coal) held a meeting with some of the stake holders on 26th May, 2009 with the stakeholders. Further, MoS (I/C) (Coal) held a meeting on the 10th August, 2009 with the State Ministers of Mining and Geology of coal and lignite bearing States. During the meeting the State representatives supported the proposal. Steps are being taken to place the matter before the Cabinet.

Status of Projects under implementation

CIL

118 Nps. of Ongoing Projects costing Rs. 20 Crs. & above for an ultimate capacity of 384.033 Mty. at an ultimate investment of Rs. 23185.514 Crs. are in different stages of implementation. Out of these projects,- 104 projects are on schedule and 14 nos. of projects are running behind schedule (Details are given in Annexure-I). The reasons for delay in implementation for each of these projects along with estimated completion schedule is also enclosed as Annexure-II

SCCL

25 Projects are under implementation of which 4 Projects costing Rs. 100 Crores and above are on schedule. Out of other 21 projects costing between Rs.20 Crores and Rs. 100 Crores, 14 Projects are on Schedule and 7 projects got delayed.

New Projects being proposed for additional production

(i) CIL

134 projects have been identified to be taken up during XI Plan period for an ultimate capacity of 308.94 Mty with an ultimate investment of Rs. 26006.68 Crs. Out of these 134 projects, 65 projects for a capacity of 155.42 Mty at an investment of Rs.8593.80 Crs. have already been approved and are under different stages of implementation. (These projects have already been included in the list of Ongoing projects)

Out of these 65 projects , 12 projects have already contributed to the tune of 17.93 Mt. during the year 2008-09 and 51 projects are likely to contribute to the tune of 88.02 Mt. during the terminal year of XI Plan i.e. 2011-12.

Out of balance 69 yet to be approved projects, 49 projects are planned to contribute to the tune of 35.19 Mt. during the terminal year of XI Plan ie. 2011-12.

(ii) SCCL

S No.	Project Name	UG/OC	Proposed Year of commencement	Rated Production (MT)
1	Adriyala Jallaram ILW	UG	2009-10	4.50
2	Abbapur	OC	2009-10	1.00
3	Kondapuram	UG	2009-10	0.50
4	MNG OCP	OC	2009-10	1.50
5	RG OC-I1 Exp.	OC	2009-10	4.00
6	RKPOC	OC	2009-10	2.50
7	KKOC	OC	2010-11	1.75
8.	KTK LW	UG	2010-11	3.00
9	JK-5 0C	OC	2010-11	2.00
10	MNG OC-IV Exp.	OC	2010-11	3.00
11	JVROC-II	OC	2011-12	4.00
12	Peddapur	OC	2011-12	1.50
13	RGOC-HI Extn. Phase-II	OC	2011-12	2.00

III. Since, these projects are crucial from the perspective of supply of coal during the 12th Plan, a time bound plan for approval & implementation is has been chalked out.

IV. Details of proposed new projects of CIL for additional production with targets and time lines are furnished in the Annexure IV. A PERT Net work is invariably prepared and submitted to P1B while considering the proposal and a detailed calendar plan of production is also a part of the approved PR with major mile stones.

Institutional mechanism for monitoring of timely implementation of projects

Main reasons for slippage in the implementation of projects

a. Delay in acquisition of land and associated problems of rehabilitation.
b. Delay due to adverse geo-mining condition,
c. Delay due to fire,
d. Delay due to law & order problems.

Steps taken to improve project implementation

I. Vigorous follow up action with concerned State Govt. Officials are being actively done to expedite land acquisition proceedings.

II. Regular meetings with State Authorities viz. Land Revenue Commissioner, LR Secretary, Chief Secretary and Committees constituted by respective State Govts are held to sort out acute problems.
III. Forest officials are contacted on regular basis at District and Tehsildar level to fulfill the requirement & queries. Periodical contacts are done with the Regional Office & Main office of MoEF for expeditious clearance of the forestry proposals.
IV. Discussions held with land owners/villagers for selection of rehabilitation site and they are persuaded to accept the rehabilitation benefits and to shift to the rehabilitation site.
V. Sophisticated geological and geo-physical exploration technique adopted for advance forecasting of geo-mining condition.

Project Management

- Director (Projects & Planning) posted in each company with overall responsibility of implementation of projects.
- Comprehensive guidelines for project formulation and monitoring issued by the Govt.
- The system of monitoring at various levels has been standardized.
- Project monitoring is done on monthly basis or at shorter intervals at the area level by GM / CGMs and by Director (Projects) and CMDs at corporate level.
- Status of project is also reviewed at every Company Board meetings by exception.
- Mandatory reviews of the projects are carried out at company level when the expenditure of the project exceeds 50% of the sanctioned capital.
- Projects, costing Rs. 50 crores & above, are being reviewed by Empowered Sub-committee of CIL Board at regular interval.
- Progress reports in respect of projects costing Rs. 100 crores & above are also submitted to Department of Programme Implementation regularly.
- Department of Programme Implementation regularly monitors the implementation of projects costing 20 crores and above.
- Quarterly review in the administrative Ministry / Department at the level of Secretary is taken for major projects.

Assistance required in Project Implementation

State Govt. may also share the responsibility for acquisition of land along with Coal Companies. Delivery of possession of land by the State Govts be ensured after the requisite fund is deposited with State Govt. so as to avoid any delay in implementation of projects.

Now-a-days, land acquisition is becoming very difficult due to competitive scenario, arising out of acquisition of land by several other agencies in the nearby areas of coal projects of CIL. Different agencies of other sectors as well as captive coal mine owners, by direct negotiation with the land owners, are offering much higher rate of land compensation compared to the rate of compensation offered by CIL Coal Companies as per prevailing rates calculated as per provisions of CBA Act & LA Act. It is suggested that a comprehensive view may be taken at the Government level to device the methodology for fixing rate of compensation of land taking into account the existing rates in the surrounding areas.

Suitable amendments may be considered in CBA Act so that compensation earlier approved under the CBA Act [based on the date of notification u/s 4(1)] and compensation not accepted, may be reassessed considering the prevalent market rates of the adjoining area at the time of delivering the physical possession of land. For fresh cases, compensation rates may be assessed based upon the prevalent market rates of the adjoining area at the time of delivering the physical possession of land and not based upon the date of notification u/s 4(1) of the CBA Act.

Responsibility for acquisition of forest land should be restricted to payment of Net Present Value charges etc. only by the Coal Companies. The time now required for processing the proposal may be reduced by restricting the movements of file in different channels.

SCCL

The following institutional mechanism for monitoring of timely implementation of Projects is in prevailing in SCCL :

a. A full-fledged (ISO 9001:2000 Certified) Project Planning Department with experienced executives from various disciplines is functioning in SCCL. Lot of care is taken right from the stage of concept to feasibility report. Before submission to the Board, each Project Report goes through several stages of evaluation.
b. On approval, a Project Officer is nominated for implementation of the project. He will be made fully, aware of his responsibilities, time schedules, procedures to be followed, feed back mechanisms etc. Each project officer is given adequate guidance and assistance from higher management for proper implementation of the project
c. There are different levels of review:

(a)	Once in a Week	By Project Officer.
(b)	Once in a Fortnight	By the G.M.
(c)	Once in a month	By Director.
(d)	Once in a Quarter	By C. & M.D.
(e)	Every Board Meeting	All On-going projects.

There is a constant review undertaken by the department of Information & Project management at corporate level. Regular reports are generated about the progress of each project and sent to the concerned Ministries at prescribed intervals: Govt. of India conducts project review meetings at the end of every quarter.

Coal Beneficiation

I. As per the ECC Recommendations, Coal companies should be required as per international practice to "prepare" and "dress" coal prior to sale-CIL was asked to prepare a road map for augmented washed coal supplies.
II. CIL is going to set up 19 nos. of coal washeries on Build, Operate & Maintain basis in the first phase. These washeries are expected to be commissioned by 2011-12. CMPDI has prepared a Model Bid Document for this purpose. These washeries will be set up in different subsidiaries except NCL. Details of subsidiary wise, no.of washeries to be set up & their capacities are listed below:

Subsidiary		**No. of washery**	**Capacity**
ECL	Chitra(2.5 MTY), Sonpur Bazari (5.0MTY),	02	7.50 MTY
BCCL	Madhuban (5.0 MTY), Patherdih (5.0MTY), Patherdih (2.5 MTY),Bhojudih (2.0 MTY), Dugda (2.5 MTY) ,Dahibari (1.6 MTY)	06	18.60 MTY
CCL	Ashoka (10.0 MTY), Piparwar (3.5 MTY), Karo (2.5 MTY), Konar (3.5 MTY).	04	19.5 MTY
MCL	Basundhara (10.0 MTY), Hingula (10.0 MTY), Jagannath (10.0 MTY), Samleshwari (10.0 MTY).	04	40.0 MTY
SECL	Kusmunda (5.0 MTY),Baroud (5.0 MTY).	02	10.0 MTY
WCL	Ghughus / Wani (5.0 MTY)	01	5.0 MTY
	Total	**19**	**100.6 MTY**

(iii) Global tenders have been floated for the following :

BCCL - for washery at Madhuban, Patherdih (5 MTY), Dugda.

CCL - for washery at Ashoka.

MCL - for washery at Basundhara.

Steps being taken to maintain quality of coal

A. A. In order to ensure improvement in quality the following steps have been taken by CIL:
   I. Selective mining of bands of > 1 meter thickness..
   II. Appropriate positioning of OB and coal benches to avoid contamination.
   III. Scrapping/cleaning of coal benches before blasting.
   IV. Installation of metal detectors / magnetic separators over running conveyors before loading coal.
   V. Having high capacity coal handling plants to dispatch sized and uniform quality of coal at all major projects to suit the requirement of the consumers.
   VI. Establishment of well equipped laboratories at all the projects for regular quality assessment.
   VII. Shale-picking, at mine face, stocks & loading points/sidings to address the issue of consistent quality.
B. In order to overcome the oversize problem, total 211 CHPs and Feeder Breakers having a total capacity of 257.59 MTY are operating in different subsidiary companies. In addition, 29 Feeder Breakers and 3 Mobile Crushers are in the process of being installed in different subsidiary companies with a view to ensuring supply of 100% crushed coal. More over, the Surface Miners deployed at CCL, SECL & MCL produces about 53.5 MTY sized coal which has ensured supply of sized coal.
C. CIL has decided that Auto Mechanical Samplers (AMS) would be installed at all silo loading points within 24 months of signing of FSA with Power Sector consumers.
D. As per CIL's policy for quality assurance, joint sampling facility is extended to large consumers having annual requirement of 0.4 million tonnes and above. Payment of coal value in such cases is based on quality determined through joint sampling and analysis. This arrangement has been operating to the satisfaction of large consumers which is reflected in insignificant deduction of coal value on account of quality, which during 2007-08 turned out to be a negative deduction i.e. a marginal bonus of Rs.2.58 per tonne based on overall CIL performance.
E. As a long term strategy it has been decided that all coal specially from the open cast mines will be washed before supply to consumers located away from pit head. Washeries for this purpose are being developed by CIL. at various subsidiary companies on "Build Operate and Maintain (BOM)" basis. Already 19 washeries having a total capacity of about 100 MTY have been planned in different subsidiary companies.

Shift from UHV to GCV System

Based on the recommendations of various Committees constituted by the Government for switching over from UHV to GCV based grading and pricing of coal, a proposal for adoption of lower bandwidth UHV grades was initially mooted on trial basis by CIL in consultation with NTPC & CEA. The proposed system aims at revenue neutrality and would encourage coal companies to go for quality improvement measures. It was agreed to try out the proposed bandwidth for coal supply at some NTPC power plants initially for 60 days. However, this has not come through due to the lapse of time agreed to between NTPC and Coal India Limited and also lack of installation of automatic mechanical samplers at the loading points. Accordingly, CIL Was advised to submit a proposal mentioning the corresponding GCV values of sub-graded UHV bands and respective price ranges along with the time frame during which it proposes to install Auto Mechanical Samplers (AMSs) at the loading points. The desired data has been obtained and is being processed in the Ministry to notify the same through a Gazette Notification for switching over to GCV based grading.

Coal Regulator

I. Regulator is required for power sector and also for other energy sectors. Though, a regulatory framework for Power & Petroleum Sectors is already in place, need for Regulator has been considered by various committees and expert groups for coal sector, too.
II. The Integrated Energy Policy, brought out by the Planning Commission recently, makes out a case for an independent regulator for coal sector. A Key responsibility of the regulator would be to make India, the country with 3rd largest reserves of coal in the world, a long-term player in the highly liquid international market for coal. The Working Group on Coal for XI Plan as well as the Sankar Committee, set up to suggest road map for coal sector have recommended setting up of an independent regulatory authority for coal sector.
III. The Energy Coordination Committee, headed by the Prim Minister, decided in its 6th meeting that the Planning Commission should prepare a paper on appointment of an independent regulator for coal Sector. The Planning commission, in turn, advised the Ministry of Coal to engage a consultant to carry out a study in the matter and to prepare a draft Bill. Accordingly, ASCI Hyderabad was appointed as a consultant. After extensive consultation with the stakeholders, ASCI had prepared a Draft Bill.
IV. A draft Cabinet Note on setting up of a Coal regulatory Authority along with the draft Bill was circulated to various Ministries/Department for obtaining their comments. The comments from all the Ministries/Department have since been received and examined. Ministry of Law had suggested some major modifications in the draft Bill, which have been examined in the Ministry and the modified draft Bill has been sent to them for further concurrence.
V. Constitution of an independent regulatory body for coal sector would result in more optimal development and conservation of coal resources, more effective regulation, adoption of best mining practices, better distribution, evolution of a more completive market etc. Creating a level playing field for new entrants in coal sectors would also be facilitated by the appointment of coal regulator.

Acquisition of coal properties abroad

I. Coal India Limited (CIL) intends to acquire properties in foreign countries pertaining to metallurgical and low ash thermal coal and import the produces to India to meet the demand-supply gap and fulfill the strategic objective of enhancing country's energy security. For this , purpose Government has approved participation of CIL in a Joint Venture company International Coal Ventures Limited (ICVL) with SAIL/RINL/NMDC & NTPC for acquisition of coal resources abroad. A panel consisting of 10 (ten) Investment bankers of international repute have been constituted. CIL has already been awarded two coal blocks for development by Government of Mozambique.
II. Constitution of an Empowered Committee of Secretaries to consider the proposals of CIL for investment abroad has been approved by the Government.
III. The key issues/action taken by CIL regarding Acquisition of Coal properties abroad are as under:-
    a. CIL is pursuing its foreign venture initiatives of acquiring coal resources abroad through "Coal Videsh Division". functioning at CIL (HQ). CIL, having been conferred the Navaratna status, is empowered to invest in acquiring coal resources K abroad up to a limit of Rs. 1000 crore (approximately US $ 200 million) for a single deal, subject to other related conditions.
    b. CIL leveraged the bi-lateral platform of Indo-Mozambique Joint Working Group on coal to acquire prospecting license (PL) of two coal blocks in Mozambique, namely A1 and A2, covering an area of 22,400 hectares. It emerged as the successful bidder in the global tender process run by Govt. of Mozambique based on its proven core competence over the entire gamut of coal business value chain. The licenses will allow CIL to explore and develop the coal blocks over a period of 5 years. As a follow-up action, initiatives have been taken to start the exploration activities as well , as formation of a company in Mozambique.
    c. In order to expedite the process of acquisitions abroad , CIL has floated a global Expression of Interest (Eol) to invite prospective coal companies in Australia, USA, South Africa and Indonesia to enter into Strategic Partnership for acquisition, development and operation of coal blocks/mines in respective country. The responses to Eol is scheduled to be received upto 31st August, 2009. After evaluation of the responses, the short-listed companies will be invited for discussion with CIL and thereafter the final selection shall be made. The entire process is expected to be completed by end of November, 2009.

Development of Underground Mines

I. As per ECC Recommendations, development of UG Mines must be encouraged by giving incentives to operators because underground mining helps preserve the land form and extract seated resources.
II. Though no direct incentive is being extended to mine owners for promoting underground production, however some expenditure incurred towards conservation & safety in coal mines & development of transport infrastructure in coalfields are being reimbursed under the provisions of Coal Conservation & Development

Act. (CCDA). Further CIL has been directed to reduce the time period involved in contract management in procuring equipment and adoption of new technologies through preparation of standard NIT for similar kind of technologies to be adopted by their subsidiary coal companies.

III. MOC has directed CIL with number of suggestions/recommendations for augmenting production from the underground mines. Of these, most important one pertained to preparation of a standard NIT for similar kind of technologies to be adopted by subsidiary coal companies of CIL. The introduction of continuous miner technology in identified projects of CIL for which a suggestion was made to enter into rate contracts with suppliers covering operation and maintenance in order to save on time in procurement of equipment. CIL has been directed for introduction of technologies by quickening the procurement and contract processes with an objective to curtailing the delays in the tendering processes and realizing the envisaged production level from the underground mines.

IV. Following initiatives have been taken by CIL for development of Underground Mines:-

a. Seven Underground Coal mines/blocks were identified for development, construction and operation of High Capacity mines of international standard. Nine parties have been short listed on the basis of a global notification for Expression of Interest. Out of the seven blocks, tender notice for one in BCCL has been issued. Action is being taken for issue of tender notices in respect of other mines/blocks.

b. In order to encourage the prospective bidders, following have been incorporated in the NIT document.

I. Deviating from the provision of Contract Management Manual, Security deposits visa-vis Performance guarantee conditions and payment terms have been made quite liberal.

II. Attractive Bonus Payment Clause has been included for high performance.

c. Amongst a good number of Abandoned/Derelict mines, not being worked for reasons of safety and economy, 18 underground mines have been identified for salvaging, rehabilitation and operation by infusion of state-of-the-art technology and fresh capital.

d. It is proposed to re-work these mines by Joint Venture companies for which Global EoI was invited for selection of internationally reputed JV partners. Model NIT document has almost been finalized and actions are being taken to issue tender notices to the 10 short listed bidders. To make the proposal attractive for JV partners the following have been incorporated in the NIT document:

i. Operation of abandoned mines will be on risk-gain sharing basis by proposing 50:50 partnership for equity as well as operating expenses.

ii. Provision for offering 50% of coal to be furnished by the JV company on "Right to first refusal" basis for captive end use by the JV partner. This however, need approval of the Government of India and the matter has been taken up with Secretary, Ministry of Coal.

Strengthening CMPDIL by giving autonomous status

This matter was examined- by the Expert Committee on Road Map for Coal Sector Reforms (Sankar Committee). Though the Expert Committee in its Part-I report had This matter was examined by the Expert Committee on Road Map for Coal Sector Reforms (Sankar Committee). Though the Expert Committee in its Part-I report had suggested that CMPDI must be an autonomous body with powers to independently hire sub-contractors or bid out exploration work, after getting response from various sectors and revisiting the issue they had recommended in its Part-II report that CMPDI structure and the interface with CIL may be retained as it is today. There is need to make some changes in the functions of CMPDI by separating all function of CMPDI in advising Govt. in respect of approval of mine plans of companies, other than CIL. This is to avoid any conflict of interest.

Keeping in view the impending crisis of professional manpower in CMPDIL, the Committee recommended that action may be immediately initiated for large scale recruitment of such qualified professionals so that these newly recruited professionals could be adequately trained by experienced professionals before they retire in the next few years. .

In this regard following action has been taken by the Govt./CIL:- In this regard following action have been taken by the Govt./CIL

In this regard following action have been taken by the Govt./CIL:-

i. Capacity building at CMPDIL has been undertaken.

ii. CMPDIL does not advise Govt, in respect of approval of mine plans. There are Recognized Qualified Persons (RQPs), who prepare plans for CIL Project and other companies. The mining plans are submitted to the Government, where a Standing Committee headed by Secretary (Coal) examines and approves the mining plans.

iii. The Personnel Deptt. of CIL have initiated action for recruiting executives and workers (for drilling campus) for CMPDl.

Possibility of having an Exploration Fund - Proved Mine Plans of 10 bt

The Expert Committee constituted for drawing a road map for Coal Sector Reforms in theij; Report had recommended for creation of a revolving fund of Rs. 500 Cr for raising the drilling capacity of CMPDIL from the existing 3 lakh metres per annum to at least 15 lakh meters per annum. However, the recommendation was not found feasible as most of the areas were difficult for undertaking mining activities and many of them could be exploited only after the upper horizons or the rise side property were exhausted. As such, the idea of revolving fund by selling the geological reports was not found to be feasible.

Measures taken to speed up Land Acquisition and amendments required in the CBA Act

I. The Coal Bearing Areas (Acquisition & Development) Act, 1957 is the instrument for acquisition of land which contains coal deposits by the Central Government. Under the CBA (A&D) Act, 1957, initially Government declares its intention to do exploration/prospecting for coal through a notification under section 4(1) of the said Act. The validity period of notification under section 4(1) is for two years which can be extended further for one more year through a subsequent notification. On completion of prospecting, by notification under section 7(1) of the said Act, the Government declares its intention to acquire the land which contains coal deposits. The validity of notification under section 7(1) is for three years. On issuing the notification under section 7(1) of the said Act, the Ministry invites objections, if any, from the land owners and the State Government concerned. After the disposal of objections, if any, received from the interested parties, the Government issues notification under section 9(1) of the said Act, acquiring the land. Rights and titles of the land are transferred to the coal company through another notification under section 11(1) of the said Act.

II. Apart from this, there are difficulties and delays faced by the coal companies in the physical possession of the acquired land from the land owners, which include:-
   a. The land records maintained by the State Governments, which are known as Record of Rights (ROR), are often found not updated causing problems in ascertaining the actual ownership and title of the land
   b. Dispute about ownership of Government land between tile Revenue and the Forest Department of the State.
   c. Delay in authentication of land by the State Govt. which is required to ascertain the actual ownership.
   d. Delay occurs in processing the acquisition proposals at various level of the State Government.
   e. Possession of Government land sometimes can not be taken due to large scale encroachment over such land. (State Government is required to transfer the land free from all encumbrances)
   f. Proposals for diversion of forest land for non-forest purpose have to pass through various channels of the State as well as the Central Governments, resulting long chain of processing and delay in the release of forest land.
   g. Delay in issuing No Objection Certificate (NOC) to be issued by the State Government for processing the acquisition of land recorded as Jungle-Jhari, Chote Jhar, Bare Jhar ki Jungle under the Forest (Conservation) Act, 1980.
   h. Considerable delay takes place in handing over the forest land after its release by the Central/State Government.
   i. Title disputes among the tenants pending before different courts at difference places.

III. Normally there are no delays in issuing the relevant notifications. However, time is consumed in exploration/prospecting for coal. A 30 days time has to be given for objections to be filed against acquisition of land and then in consideration and disposal of these objections. Sometimes land is acquired in phases spread over years depending on the requirement of the concerned coal company. The considerable time limits are available for re-assessments of land required before notification under section 7(1) and even under section 9(1) of the CBA (A&D) Act, 1957. However, there are no provisions to denitrify the land acquired after issuing notification under section 9(1) of the said Act. Removing the difficulties and delays in physical possession of the land at State Government level discussed in Para-2 above will go a long way in speeding up land acquisition. Apart from this appropriate provisions fixing a time limit in acquiring the land under section 9(1) after issuing notification under section 7(1) of the Act and for denitrifying the acquired land are required in CBA (A&D) Act, 1957.

Steps being taken to ensure smooth transportation of coal especially during Monsoon

ECL -Contracts related to coal transportation for the year 2009-10 has already been finalized/in vogue in repect of most of the areas like Rajmahal, S.P. Mines, Jhanjra, Kunustoria, Bankola and Satgram etc. Such finalisation of contracts will ensure smooth transportation of coal throughout the year including monsoon.

In Mugma, Sripur and Salanpur Areas where the tenders could not be finalized for transportation of coal, the contracts awarded last year are being extended to have uninterrupted transportation.

BCCL: To improve upon the present system following steps have been taken :

I. ESM companies rates have been revised. This will help in augmentation of transportation by ESM company and will attract new ESM company.
II. Tender have been floated for long term transportation contract. This has been done with a view to attract coal transportation with large fleet. This will contribute towards enhancement in coal dispatch.
III. Schedule of rates for coal transportation is also under revision and it is expected to be finalized during this month.
IV. DGR has been requested for sponsoring new ESM companies.
V. DGR has also been requested for enhancement of fleet strength for two existing ESM companies
VI. Delegation of Power of CGM/GM of the area for coal transportation has been revised to enable them to award works to ESM and SOR for coal transportation upto Rs. 1.00 crores and Rs. 1.5 crores respectively.

Steps taken to bring Improvement in Transportation System :

I. Civilian contractors are being encouraged for transportation of coal from face to siding. In two areas the transportation from face to siding has already been started by Civilian contractor. Previously the transportation from face to siding was being done by ESM companies and departmental equipments.
II. To enhance the dispatch of coal by 5 Million Tonne, BCCL Board has approved the Rapid Loading System and it has been forwarded for clearance of CIL Board. One such arrangement is being planned in Tetulmari and for this project report- is being prepared by CMPDIL.
III. Efforts are being made to transport the coal through co-operative societies where outside agencies are not being allowed to do the transportation job by local people.

Constraints faced:

1. The main constraint is lack of infrastructure like availability of hindrance free road, densely populated markets and residential area in and around the mining area. interference of local people and their leaders with the work of transporters causing hindrance in transportation of coal from face to dump and siding.
2. Local people also do not allow DGR sponsored ESM companies to operate their own fleet and insist on deployment of local villagers thus violating MOU provisions. This has resulted in investigation by different agencies including CBI and lodging of FIR.

At BCCL dispatch by Rail is not the constraint but dispatch by Road to sidings is a problem area. Trie Ring Road as has been envisaged in the Master Plan which may ease out the situation to some extent. -

C. CCL:

I. 33% of the total stock of coal at CCL is lying in Asoka ?nd Piparwar Project. There is no railway siding at Piparwar Project. All coal from these two projects have to be transported by road to nearest railway siding. Action has been taken to ensure transportation of coal by road from these two projects.
II. Action has been taken for long-term transportation contract.
III. DGR has been requested for sponsoring new ESM companies.

D. NCL : Stock is very minimum. There is no constraint as most of the coal is transported to pithead power stations.

E. WCL : Coal transportation contracts to Civilian Agencies as well as to ESM agencies have been awarded to ensure smooth transportation of coal during monsoon.

F. SECL : Action has been taken to award Coal transportation contracts to Civilian Agencies as well as to ESM agencies to ensure smooth transportation of coal during monsoon.

G. MCL : The following action have been taken by MCL to ensure smooth transportation of coal

a. Most of the Coal Transportation Contracts for 3 years have already been finalized and awarded for smooth transportation to various destinations including sidings.
b. Surface Miner Contracts for 3 years are already in operation to facilitate coal extraction and transportation of the same by ESM Agencies directly to Railway Sidings.
c. Repairing and maintenance of coal transportation road along with other preparatory works for monsoon are being done to ensure uninterrupted production and transportation.

Outcome of ESM experiment in ECL and BCCL

The above said matter has been taken up with CIL and the concerned subsidiaries. As per the information received from CIL and ECL, no ESM coal transportation company is deployed at present in ECL. The coal transportation work is being carried out there through civilian contractors. In BCCL. seven ESM coal transportation companies are deployed at present and they are working satisfactorily. The quantity of coal transported by these seven companies during 2007-08 and 2008-09 are 87.30 lakh tonnes and 89.24 lakh tonnes respectively. During the said years, the value of work of these seven companies was Rs.31.71 crores and 35.93 crores respectively.

Issues pending with other Ministries

(I) Allocation of Coal Blocks

a. Reference received from PMO forwarding therewith a representation of various MPs from Vidharba region raising the issue of Tadoba-Andhari Tiger Reserve area within the block boundary of Lohara (East) coal block allocated to Adani Power Ltd.

   The comments of Ministry of Environment & Forest has been called for in the matter vide letter dated 28.08.2009.

b. Visa Power Limited have requested for change in location of their plant from Champa distt. Chhattisgarh to Raigarh Distt. of Chhattisgarh and enhancement of capacity of power plant from 1000 MW to 1200 MW.

   Comments sought from Ministry of Power vide letter dated 15.01.2009.

c. J AS Infrastructure Capital Pvt. Ltd. has requested for change in location of 1000 MW thermal power plant from West Bengal to Bihar

   JAS Infrastructure Capital Pvt. Ltd. has requested for change in location of 1000 MW thermal power plant from West Bengal to Bihar

d. D.B. Power Ltd. has requested for change in location from Jaspur to Raipur in Chhattisgarh due to enhancement of capacity from 1000 MW to 1320 MW.

Comments sought from Ministry of Power vide letter dated 06.08.2009

(II) Ministry of Environment and Forests

I. Increase in the number of exploratory boreholes in forest land from 15 boreholes per 10 Sq. km. to 20 boreholes per Sq. km. to undertake proper resource assessment to prepare feasibility/bankable reports.
II. While the time period for Forestry clearance is 150 days normally the forestry proposals getting delayed by 3 to 6 years.
III. Drawing up of standard Terms of Reference (ToR) for opencast and underground mines to reduce time for EMP/EIA preparation.
IV. There is no representation of MoC in the Forest Advisory Committee (FAC) and Expert Committee (Thermal Power Plants and Coal Projects). A representative from MoC can facilitate the approval process for coal projects.
V. Temporary Work Permission (TWP) may be granted for increase in production capacity till the revised EMP for higher capacity is submitted for ongoing projects/mines. Time required for data generation and other studies for EMP preparation takes almost one year. The TWP will immediately facilitate increase in production from some opencast coal mines in the country to meet the ever increasing coal demand.

(III) Ministry of Railways

I. Todi-Shivpur Railway line in Jharkhand is expected to transport 160 million tonne coal production. The project cost was Rs.621 crores and the project started in 2000, as yet only Rs.25 crores could be spent. Very little progress.
II. Mand-Raigad Coalfield - Extension of railway siding to Barud-Bijuri Block. Around additional 80 million tonnes of coal to be evacuated from this area. Extension of railway sidings are required for Barud-Bijuri block, Lakhanpur coalfields and Amadan coal block. Total extension is about 130 kms. in three different sections.
III. Construction of 53. kms. of railway track from Gopalpur to Manoharpur in lb Coalfield in Orissa. Potential growth in the area is 200 million tonne.
IV. 74 Km. railway track in Talcher coalfield with additional coal production potential of more than 300 million tonnes.

(IV) State Governments and other Ministries like Civil Aviation, Ministry of Power

I. Some large scale construction works like Aerotropolis (Airport Complex) near Durgapur in West Bengal, Thermal Power Station in North Karanpur, Jharkhand, etc. are being envisaged on coal bearing zones. Construction of these facilities will sterilize huge quantities of coal resources. Coal being the major source of energy available in the country, it is desired that manmade structures should be shifted away from the coal bearing zones.
II. Land acquisition is one of the major problem for expansion of the coal projects or starting of new coal projects. The problems for land acquisition are basically R&R issues which have the following associated difficulties:
    a. Demand for employment and other resettlement benefits beyond the norms prescribed in the R&R Policy of CIL.
    b. Delay in authentication of claims of the tenants.
    c. Non-availability of valid title document.
    d. Disputes amongst the land losers and related court cases.
    e. Resistance in shifting to rehabilitation site even after receiving full amount of compensation of land and houses.
    f. Demand for higher amount of land compensation than that prescribed in the relevant Act of land acquisition.
III. Law and order situation in many States specially Jharkhand, Chattisgarh, Orissa and West Bengal have adversely affected coal mining operations and also increase in illegal mining operations and have stopped creation of much needed infrastructural facilities like roads, railways, etc. in areas like Karanpura Coalfields. More active involvement of State Government authorities can only prevent and eradicate these problems to facilitate continuance of mining operations smoothly.
IV. Considerable delay is taking place to accord approval for prospecting lease, mining lease, land acquisition, etc. These procedures are under the control of the States. Greater awareness and appreciation from the State Government machineries are required from hastening the approval processes for development of new mines and expansion of the existing mines.

Ongoing Projects

Annexure-I

SL No.	Sub	Name of the Project	Type	Date Of Sanco	Capacity (MTY)	Sanco Capital (Rs.CRS)	Sch DT. Of Compln.	ant. dt: Of Compln.	Delay In Years	Prodn. During 2007-08 (MTY)	Target During 2008-09 (MTY)	Proon. During 2008-09(MTY)	Target During 2009-10 (MTY)
1	ECL	BELBAID (DHASAL)	UG	Feb-09	0.480	69.110	Mar-14	Mar-14					
2	ECL	J.K NAGAR	UG	Nov-04	0.435	54.150	Mar-05	Mar-11	6	0.256	0.440	0.212	0.300
3	ECL	JHANJRA AUG. (RCE)	UG	Feb-07	0.438	93.600	Mar-10	Mar-10		0.270	0.440	0566	0.440
4	ECL	KUMARDIH-8	UG	Jun-06	0.420	79.230	Mar-14	Mar-14		0000	0.200		0.050
5	ECL	NABAKAJORA-MADHABPUR	UG	Dec-06	0.300	56.140	Mar-11	Mar-11		0.000	0.000		0.000
6	ECL	SIDULI UG	UG	Dec-06	0300	54.990	Mar-11	Mar-11		0.000	0.000		0.000
7	ECL	RAJMAHAL EXPN 07)	OC	Feb-06	6.500	50.080	Mar-10	Mar-11		0.000	3.000		0.350
8	ECL	KOTTADIH OC (AUG)	OC	Dec-06	1.000	23.010	Mar-10	Mar-10			0.800	0.786	0.200
9	CCL	TARMI (RPR)	OC	Mar-09	1.000	35.540							
10	CCL	BOKARO	OC	May-	0.600	46.780	Mar-00	Mar-10	10	0.170	0.180	0.170	0.170

		BERMO SEAM		95									
11	CCL	KONAR	OC	Aug-06	3.500	74.530	Mar-11	Mar-11		0.000	0.500		
12	CCL	KARO	OC	Aug-06	3.500	96.530	Mar-10	Mar-10		0.920	1.400	0.770	1.100
13	CCL	TETARIAKHAR	OC	Jan-09	2.000	78.600	Mar-13	Mar-13		0.300	0.150	0.120	0.150
14	CCL	TOPA RE-ORG	OC	Mar-02	1.200	65.250	Mar-06	Mar-10	4	1.000	0.700	0.530	0.800
15	CCL	AMLO EXPN (EPR)	OC	Mar-09	2.500	56.320				1.440	1.200	2.810	2.000
16	WCL	WAGHODA	UG	Apr-08	0.390	71.735	Mar-14	Mar-14		0.000	0.000		
17	WCL	BHATADIH EXPN	OC	May-07	0.650	99.684	Mar-10	Mar-10		0.282	0.300	0.361	0.400
I8	WCL	JUNAD EXTN	OC	Nov-07	0.600	38.750	Mar-11	Mar-11			0.500		0.500
19	WCL	DURGAPUR DEEP EXTN	OC	May-07	2.000	42.982	Mar-12	Mar-12		0.000	1.340	1.720	2.000
20	WCL	TAWA-II	UG	Mar-04	0.390	36.430	Mar-09	Mar-09		0.188	0.280.	0.234	0.310
21	WCL	GOURI DEEP	OC	Nov-01	0.400	86.220	Mar-10	Mar-10		0.000	0.050		0.050
22	WCL	GOKUL OC	OC	Jun-06	1.000	79.830	Mar-12	Mar-12		0.000	0.000		
23	WCL	KOLAR PIMPRI EXTN. OC	OC	Jun-06	1.500	72.900	Mar-12	Mar-12		0.000	0.000		1.100
24	WCL	KOLGAON (RPR)	OC	Apr-09	0.500	49.594	Mar-11	Mar-11		0.326	0.350	0.363	0.400
25	WCL	BHANEGAON -	OC	Nov-03	0.600	30.440	Mar-10	Mar-10			0.050		0.050
26	WCL	GONDEGAON EXTN.	OC	Sep-04	0.750	27.540	Mar-10	Mar-10			0.000	0.120	1.350

27	WCL	INDER UG TO OC	OC	Dec-04	0.600	38.230	Mar-12	Mar-12			0.330	0.038	0.400
26	WCL	JUNAKUNADA	OC	Mar-03	0.600	23.757	Mar-10	Mar-10			0.050		0.150
29	WCL	MAKRADHOKRA-I	OC	Apr-05	1.000	39.978	Mar-12	Mar-12			0.000		0.050
30	WCL	PAUNI-II	OC	Nov-03	0.600	28.110	Mar-10	Mar-10			0.000		0.050
31	WCL	SINGORI	OC	Mar-04	0.800	48.710	Mar-12	Mar-12			0.000		0.050
32	WCL	URDHAN (RCE*) CCSA FOR RCI	OC	Jul-02	0.500	54.421	Mar-10	CSA			0.050		0.150 .
33	WCL	YEKONA-I	OC	Dec-04	0.400-	46.070	Mar-11	Mar-11			0.080		0.000
34	WCL	YEKONA-II	OC	Aug-03	0.600	48.050	Aug-10	Aug-10			0.080		0.050
35	WCL	GHONSA (RPR)	OC	Aug-08	0.450	44.664	Mar-12	Mar-12			0.050	0.088	0.300
36	SECL	MAHAMAYAA UG	UG	Jul-07	0.480	90.480	Mar-12	Mar-12		0.430	0.420	0.269	0.350
37	SECL	PINOURAA UG	UG	Mar-98	0.480	49.930	Mar-04	Mar-10	6		0.250		0.000
38	SECL	VINDHYAA UG	UG	Mar-98	0.590	49.900	. Mar-04	Mar-10	6		0.000		0.000
39	SECL	HALDIBARI	UG	Oct-03	0.420	47.920	Oct-10	Ocl-10			0.000		0.120
40	SECL	WAY WEST	UG	Apr-04	0.500	63.560	Mar-10	Mar-10		0.000	0.000		0.000
41	SECL	SEAM-III ANJANHILL	UG	Oct-04	0.420	46.750	Oct-08	Sep-09	1				
42	SECL	RANI ATARI	UG	Jul-99	0.480	48.540	Mar-08	Mar-11	3	0.106	0.300	0.110	0.330
43	SECL	KHAIRAHA	UG	Sep-03	0.590	88.330	Mar-10	Mar-10		0.000	0.000		0.050

44	SECL	SHEETAL DHAR & KURJA RP	UG	May-00	0.880	98.980	Mar-06	Mar-10	4	0.430	0.600	0.468	0.500
45	SECL	JHIRIA	UG	Oct-00	0.330	32.070	Mar-10	Mar-10		0.330	0.335	0.335	
46	SECL	BINKARA	UG	Jan-04	0.360	41.980	Mar-10	Mar-10			0.000		0.000
47	SECL	AMADAND & BARTARAI	UG	Jul-99	0.470	45.264	Mar-04	Sep-09	5 5	0.274	0.380	0.322	0.350
48	SECL	DAMINI	UG	Apr-00	0.480	39.320	Mar-10	Mar-10		0.001	0.170	0.096	0.200
49	SECL	GAYATRI	UG	Dec-98	0.300	21.920	Mar-04	Mar-10	6	0.108	0.150	0.107	0.180
50	SECL	KETKI	UG	Nov-03	0.420	46.240	Mar-10	Mar-10			0.000		0.050
51	SECL	NAWAPARA	UG	Oct-00	0.360	42.550	Mar-06	Mar-10	4	0.063	0.200	0.141	0.200
52	SECL	AMADAND	OC	Sep-03	1.150	83.390	Mar-11	Mar-11		0.000	0.300		0.500
53	SECL	AMERA	OC	Jul-02	1.000	41.690	Mar-08	Mar-10	2		0.200		0.700
54	SECL	MAHAN	OC	Feb-07	0.360	41.422	Mar-09	Mar-10	1	0.050	0.150	0.043	0.360
55	SECL	AMGAON	OC	Jun-04	1.000	39.280	Mar-11	Mar-11			0.000		
56	SECL	SARAIPALI	OC	Jun-07	1.400	42.891	Mar-11	Mar-11			0.200		0.500
57	SECL	KANCHAN	OC	Sep-07	0.650	26.010	Mar-10	Mar-10		0.320	0.320	0.363	0.650
58	SECL	CHHAL	OC	Sep-07	3.000	50.380	Mar-11	Mar-11		1.327	1.100	2.596	2.500
59	SECL	MAHAN-II	OC	Jan-06	1.000	37.450	Mar-10	Mar-10			0.000		
60	SECL	JAMPALI	OC	Jan-06	2.000	47.720	Mar-10	Mar-10			0.000		

61	SECL	AMBIKA OC	OC	Jun-06	1.000	22.300	Mar-10	Mar-10			0.000		
62	SECL	BIJARI OC	OC	Jun-06	1.500	23.750	Mar-12	Mar-12			0.000		
63	SECL	DUGGA EXPN.OC	OC	Feb-03	1.000	87.050	Mar-09	Mar-09		0.665	0.830	0.751	0.850
64	MCL	SAMLESWARI EXPN -III	PC	Mar-09	2.000	87.950	Mar-09	Mar-09		1.618	3.500	4.194	5.000
65	MCL	TALCHER WEST	UG	Feb-03	0.520	85.080	Mar-10	Mar-10		0.000	0.000		0.000
66	MCL	BASUNDHARA (W) EXPN (7 MT	OC	Mar-09	4.600	46.520							4.600
67.	MCL	JAGANNATH	UG	Mar-03	0.570	80.750	Mar-10	Mar-10		0.000	0.000		0.000
68	MCL	NATARAJ	UG	Jan-01	0.640	92.110	Mar-08	Mar-12	4	0.000	0.000		0.000
69	MCL	HBI (AUG)	UG	Apr-08	0.900	27.860	Mar-10	Mar-10		0.570	0.700	0.593	0.000
70	MCL	HINGULA EXPN. PH-I	OC	Feb-03	2.000	89.780	Mar-09	Mar-09		2.328	2.000	1.685	2.000
71	MCL	BHARATPUR EXPN PH-II	OC	Jun-03	6.000	95.870	Mar-11	Mar-11		3.985	6.000	5.670	6.000
72	MCL	LAKHANPUR EXPN	OC	Feb-04	5.000	98.740	Mar-10	Mar-10		6.358	5.000	6.869	5.000
73	MCL	HINGULA EXPN PH-II	OC	Jan-06	4.000	35.670	Mar-10	Mar-10		5.237	4.000	5.897	4.000
74	NEC	LEKHAPANI	OC	Jul-08	0.250	56.390	Mar-14	Mar-14					
75	NEC	TIKAK (EAST) EXTN	OC	Mar-06	0.200	25.220	Mar-13	Mar-13					
76	NEC	TIRAP	OC	Jul-06	0.600	49.710	Mar-11	Mar-11					
77	NEC	LEDO	OC	Mar-06	0.150	41.370	Mar-12	Mar-12	14				
77		**TOTAL (Rs. 20-**			**88.853**	**4252.043**				**29.352**	**39.625**	**39.399**	**47.910**

		100 Crs.)											

SL No.	Sub	Project Name	Type	Date Of Sanco	Capacity Name (MTY)	Sanco Capital (Rs.CRS)	Sch. DT. Of Compln.	Ant. dt: Of Compln.	Delay In Years	Prodn. During 2007-08 (MTY)	Target During 2008-09 (MTY)	Proon. During 2008-09(MTY)	Target During 2009-10 (MTY)
1	ECL	NARAINKURI	UG	Feb-09	0.540	149.060	Mar-15	Mar-15					
2	ECL	JHANJRA 2ND CM	UG	Feb-09	0.510	122.350	Mar-11	Mar-11					
3	ECL	SARPI (RCE) AUG.	UG	Jun-08	0.760	147.860	M»r-11	Mar-11		0.169	0.300	0.225	0.320
4	ECL	JHANJRA PSLW (R-VI)	UG	Nov-06	1.700	287.170	Mar-10	Mar-11		0.000	0.700		0.000
5	ECL	CHITRA EAST	OC	Aug-07	2.500	112.690	Mar-12	Mar-12		0.000	0.300		0.000
6	CCL	PURNADIH	OC	Jul-08	3.000	210.980	Mar-12	Mar-12		0.000	0.000		0.000
7	CCL	PAREJ EAST	UG	May-08	0.510	128.890	Mar-12	Mar-12		0.000	0.000		0.000
8	CCL	PIPARWAR EXPN (RCE)	OC	Jul-07	10.000	812.520	Mar-11	Mar-11		9.000	10.000	9.000	10.000
9	CCL	MAGADH EXPN.	OC	Aug-08	20.000	706.400	Mar-13	Mar-13		0.000	0.000		
10	CCL	ASHOK EXPN.10 MTY)	OC	Dec-07	10.000	341.630	Mar-11	Mar-11		6.303	9.500	7.100	9.000

11	CCL	TAPIN	OC	Aug-08	2.500	264.680	Mar-12	Mar-12		0.720	0.500	0.580	0.750
12	CCL	ROHINI EXPN (EPR)	OC	Sep-06	2.000	105.870	Mar-11	Mar-11		1.090	0.700-	0.700	0.300
13	CCL	NORTH URIMARI	OC	Dec-07	3.000	179.870	Mar-11	Mar-11		0.488	0.800	0.350	0.500
14	CCL	CHURI-BENTI CM	UG	Aug-07	0.810	165.510	Mar-11	Mar-11		0.121	0130	0.080	0.140
15	CCL	UMRIMARI	OC	Jan-09	2.000	143.570	Mar-11	Mar-11		2.330	2.000	2.440	2.250
16	NCL	DUDHICHUA EXPN.05)	OC	Jul-08	5.000	326.750	Mar-13	Mar-13		0.000	2.000.		2.750
17	NCL	NIGAHI EXPN PH-II (15 Mty)	OC	Oct-07	15.000	2105.890	Mar-12	Mar-12		11.310	11.500	11.660	13.000
18	NCL	KRISHNA SILA	OC	May-06	4.000	789.880	Mar-10	Mar-10		0.060	2.000	1.080	3.000
19	NCL	AMLOHRI EXPN	OC	May-06	10.000	1896.960	Mar-14	Mar-14		4.700	5.000	5.280	5.500
20	NCL	BLOCK-6	OC	Jul-06	3.500	748.040	Mar-12	Mar-12		2.150	2.300	3.430	3.000
21	NCL	BINA EXTN OC	OC	Nov-06	6.000	168.970	Mar-14	Mar-14		4.890	4.700	5.440	5.500
22	WCL	PENGANGA	OC	Oct-08	3.000	339.771	Mar-14	Mar-14					
23	SECL	BAROUD EXPN (RAI WEST)	OC	Jul-08	3.000	135.580	Mar-12	Mar-12		1.377	1.400	1.556	2.500
24	SECL	KUSMUNDA EXPM.-II	OG	Jun-08	15.000	1188.210	Mar-13	Mar-13		8.713	10.500	10.558	12.250
25	SECL	BATURA OC	OC	Sap-08	2.000	203.820	Mar-14	Mar-14					0.000
26	SEC	JAGANNA	OC	Sap-08	3.000	152.430	Mar-14	Mar-14					0.000

	L	THPUR (MAHAN-(II-I)											
27	SECL	CHURCHA RE-ORG	UG	Jun-08	1.350	462.354	Mar-15	Mar-15		1.117	1.110	1.215	1.220
28	SECL	PELMA	OC	Jul-08	10.000	447.850	Mar-12	Mar-12		0.000	0.000		0.000
29	ECL	KARTAU EAST	OC	Jul-08	2.500	139.780	Mar-14	Mar-14		0.000	6.000		
30	SECL	DIPKA EXPN (2)	OC	Jul-05	20.000	1268.533	Mar-10	Mar-10		19.460	18.500	22.810	20.000
31	SECL	GEVRA EXPN (2)	OC	Jul-05	25.000	1667.554	Mar-10	Mar-10		15.109	25.000	32.104	25.000
32	MCL	BHUBANESWARI OCP	OC	Dec-07	20.000	490.100	Mar-14	Mar-14		0.197	1.500	1.846	4.000
33	MCL	KANIHA OCP	OC	Dec-07	10.000	457.770	Mar-12	Mar-12		0.000	2.000		1.000
34	MCL	GOPAL PRASAD	OC	Feb-08	15.000	395.870	Mar-13	Mar-13		0.000	0.000		0.000
35	MCL	BALARAM EXTN	OC	Dec-07	8.000	172.080	Mar-09	Mar-09		0.000	0.000	0.000	0.000
36	MCL	LAKHANPUR EXPN PH-II (15)	OC	Sep-08	5.000	116.540	Mar-11	Mar-11			2.000		3.000
37	MCL	ANANTA EXTN. (15 MTY)	OC	Aug-08	3.000	207.280	Mar-11	Mar-11		0.000	0.000		0.000
38	MCL	HINGULA EXTN.(15 MTY)	OC	Nov-08	7.000	292.540	Mar-13	Mar-13			3.000		2.700
38	MCL	TALABIRA	OC	Mar-08	20.000	447.720	Mar-16	Mar-16		0.000	0.000		0.000
40	MCL	BHARATPUR PI I-III	OC	Feb-07	9.000	131.390	Mar-10	Mar-10		1.328	1.000	0.945	2.000

41	MCL	KULDA	OC	Jan-05	10.000	302.960	Mar-10	Mar-10		0.150	2000	2468	3.000
		Total (Rs 100 Crs. & above)			**295.180**	**18933.471**			**14**	**120.132**	**160.065**	**160.285**	**180.590**

The cause-wise break-up of delay of projects /Mining Projects:

Annexure-II

Reasons for delay	**Sl. No**	**Name of Projects**	**Delay in Months**	**Sch.Compl. Ant Compl.**	**Remarks**
Adverse Geo-mining conditions.	1	Nawapara UG-SECL (0.36 mty Rs.42.55 crs	48	03/2006 03/2010	Due to adverse geo-mining conditions progress of air-shaft sinking is, slow & the inclines could not be connected as per schedule. Production tiirApr-09 is.0.014 Mte cumulative expenditure in Mar-09 is Rs.28.9607 Crs. The project is now anticipated to be completed by March 2010.
	2	Amadand Bartara) UG SECL (0.47mty Rs.45.26 crs)	66	03/2004 09/2009	Delay due to geological-disturbances in Incline drivage. Also land acquisition problem along with employment to land oustees. Coal production in Apr-09 is 0.0274 Mte & cumulative expenditure till Mar- 09 is Rs.45.9316 Crs. The project is now expected to be completed by.Sept-09.
	3.	Gayatri UG, SECL (0.30 mty,Rs. 21.92 crs)	72	03/2004 03/2010	Incline drivage for 311 m is completed in thin zone which was not envisaged in PR. Adverse geo-mining conditions like excessive water seepage has been faced. Production started, but after progress up to 14-level again thin zone encountered in Main- Dip for which additional drivage of 75 M is in progress. Coal production in Apr-09 is 0.0131 Mte & cumulative expenditure till Mar-09 is Rs.20.9739 Crs
Land-Acquisition problem	4	Bokaro Bermo Seam, CCL- (0.80 mty, Rs. 46.78 crs)	120	03/2000 03/2010	The Project initially suffered due to land acquisition problem. Presently the project is facing difficulty because of high volume of OB rehandling. As advised during review meeting taken by D(T) CIL on 31.5.08, Action Plan for implementation of the project prepared Coal production in Apr-09 is .01 Mte & cumulative expenditure till Mar 09 is Rs.35.87 Crs

	5	Arnera OC,SECL (1mty,Rs.41.69 crs)	24	03/2008 03/2010	Delayed due to Land acquisition and R & R problem. OB production started & cumulative expenditure till Mar-09 is-Rs..17.4489 Crs.
	6	Rani Atari UG, SECL (0.48srnty, Rs.48.54 crs)	36	03/2006 03/2011	Project started late due to land acquisition problem. Against a target of 0.33 Mt for 2009-10 the project has produced 0.0161 Mt. in Apr- 09 & cumulative expenditure tilt Mar-09 is Rs.26.8818 Crs.
	7	Natraj UG, MCL (0.64 mty, Rs. 92.11 crs)	48	03/2008 03/2012	Land acquisition is delayed. The job of incline drivage in the non-forest area was stopped by Forest Deptt. on the ground that the work cannot be started in the non-forest land (though acquired) until the forest land involved in the project is also cleared. MCL is exploring possibility to work the mine by making an underground connection from nearby Nandira UG Mine if economics permit. Recast PR for an enhanced capacity of 1.05 Mty has been prepared by CMPDIL, to be placed for consideration of MCL Board. Cumulative expenditure till Mar-09 is Rs.18.60 Crs.
Miscellaneous	8	J K Nagar UG, ECL (0.435 mty, Rs. 54.15 crs)	72	03/2005 03/2011	Delay due to stoppage of skip installation work by BGML & fund constraints. Draft RCE was prepared by CWIPDIL. As per observations of CMPDI in Sept-08 the item-wise capital expenditure indicate that Rs 2.58 Crs. is still unspent and RCE is therefore not required at this stage. Same is under scrutiny at ECL Hqtr. Coal production in Apr-09 is.0.023 Mte & cumulative expenditure till Mar-09 is Rs.53.71 Crs. The status of implementation of the project was reviewed by ESC of CIL Board on 13-04-09. After a detail deliberation, ECL has been advised to prepare the foreclosure report for the Project.
	9.	Topa Re-Organization OC,	48	03/2006	Project delayed due to delay in award of work of OB outsourcing as cornpany received no response from

		CCL (1.20 mty, Rs.65.25 crs)		03/2010	bidders for consecutive 3 times. Work could only be started in November 2005. Rehabilitation site for land ouster's has been identified and rehabilitation work is expected to be completed shortly. No coal production in Apr-09 & cumulative. expenditure till Mar-09 is Rs.28.40 Crs. The project is now anticipated to be completed by March 2010.
	10	Pinoura Aug. UG, SECL (0.48 mty Rs. 49.93 crs)	72	03/2004 03/2010	Delayed due to change from SDL to Continuous Miner technology & work award for the same. Based on Global Tender for MPT, the work was awarded to . Shakti Kumar Sancheti. But they finally backed out. Retendering done in 2005 could not be finalised. The mine is being worked by conventional B & P method. SECL has been advised to come up with specific plan for implementation of this project. Suitability of introduction of LCCM (600 TPD) is now being explored in view of less mineable reserve now available for introduction of normal CM package.
	1.1	Vindhya Aug. UG, SECL (0.59.mty Rs. 49;90 crs)	72	03/2004 03/2010	Delayed due to change from SDL to Continuous Miner technology & work award for the same, Based on Global Tender for MPT, the work was awarded to . Long Airdox Ltd. But subsequently the company was acquired by . DBT. Contract with . DBT. could not be completed Retendering done in 2005 but could hot be finalized. The mine is being worked by conventional B & P method with SDL & LHD. SECL has been advised to come up with specific plan for implementation of this project, Suitability of introduction of LCCM (600TPD) is now being explored in view of less mineable reserve now available for introduction of normal CM package.
	12	Sheetaldhara & Kurja UG. SECL (0.88 mty Rs.98.99 crs)	48	03/|010	The project is delayed because of delay in finalization of CM package in search C. Production is in progress in seam A & B with SDL. A lot of progress is already made on procurement of CM package Part-ll of the bid opened on 29.2.08. LOI issued on 30.4.08. The project is now anticipated to be completed by March 2010. preparatory work is in progress for commissioning of CM. Coal production in Apr-09 is 0.0288 Mte during 2008-09 & cumulative expenditure till Mar-09 is Rs.48.6449 Crs.
	13	Seam-lll Anjanhill UG, SECL (0.42 Mty, Rs.46.75.Crs.)	12	10/2008 09/2009	Depillaring of seam-lll by Blasting-Gallery method using LHD/belt started in Dec'08.At present, average production is about 600 TPD. The project is now anticipated to be completed by Sept' 2009.

	14	Mahan OC, RPR (Mar' 07), SECL (0.36 Mty Rs.41.4224 Crs.)	12	03/2009 03/2010	68.55 Ha tenancy land in dispute due to demand of employment beyond norms. Negotiation being done. Provision has been made in RPR. March-2007 for Coal & OB outsourcing. Form-I submitted for fresh EMP due to-revised mine boundary. Coal production is 0.043 Mte during 2008-09 & Cumulative expenditure till Mar-09 is Rs.18.8875 Crs.

	Project	**Type of Mine UG/ OC**	**Capacity (MTY)**	**Sanct. Capital (Rs crores)**	**Sanctioned Date**	**Approved**	**Anticipated**	**Reasons for Delay/ Remarks**
Rs.100 Crores and above								
1	Adriyala shaft project	UG	2.144	212.340	29.09.06	2012-13	Sept. 2012	On Schedule
2	Shanthi Khani Lonqwall Project	UG	1.167	749.030	09.10.06	2011-12	2011-12	On Schedule
3	Jallaram Shaft Project	UG	2.285	467.780	14.09.07	2012-13	2012-13	On Schedule
4	Kakatiya Lonqwall Project	UG	2.747	453.630	15.12.08	2012-13	2012-13	On Schedule
Rs.20 Crores to Rs.100 Crores.								
1.	Kakatiyakhani - 6 Incline	UG	0.312	29.900	28.06.02	2004 - 05	2008-09	In view of imposition of Section 22 of Mines Act. 1952 for sinking of air shaft. Delay in drivage of Air Shaft (Completed in Aug 2007) against the schedule of March 2006) and construction of fan house Delay in drivage of inter seam tunnels, due to heavy water seepage/averse geoming conditions. Completion report will be submitted in the ensuing Board meeting
2	Kondapuram	UG	0.510	19.290	19.12.08	2013-14	2013-14	On Schedule
3	Vakilpalli-BG	UG	0.490	31.490	19.12 08	2012-13	2012-13	On Schedule

4	VK 7 Continuous Miner	UG	0.400	74.730	20.10.04	2007-08	2009-10	After the accident on 12.11.2006, Project delayed due to revival of permission and negotiations with firm for repair or replacement of equipment. Equipment commissioned and producing coal from 10.6.21009.
5	Continuous Miner at GDK-11A Incline	UG	0.400	70.800	18.06.05	2008-09	2009-10	Delay in procurement of equipment. Equipment commissioned and producing coal from 15.12.2008.
6	Sereti-mechanisation with Diesel Operated LHDs in GDK-5 Inc	UG	0.450	24.660	04.09.06	2008-09		kept on Hold
7	Kriairagura OCP/ RFR	OC	0.72/ 2.50	92.46	04.09.2006	2008-09	2009-10	Delay in acquisition Forest & non-forest land and implementation of R&R
8	Dorli OCP-I	OC	0.700	48.680	29.12.03	2007-08	2008-09	Delay in Acquisition of Non-Forest land, construction of CHP implementation of R&R Plan and laying of WBM approach road. OB removal started in Nov. 2007 and coal production started in March 2008. Coal production during 2008-09 was 111 % of target Completion report will be submitted in the ensuing Board meeting
9	Dorli OCP-II	OC	0.700	47.670	16.03.04	2007-08	2009-10	Delay in acquisition of Govt. land.
10	Koyagudem OC-II	OC	2.000	58.890	16.03.04/ 18.06,05/ 06.01.06	2008-09	2008-09	Completion report will be submitted in the ensuing Board meeting,
11	Srirampur OC-II	OC	2.500	88.470	20.10.04/ 06.01.06	2009-10	2009-10	On Schedule
12	Abbapur OCP	OC	0.600	39.480	20.10.04	2008-09	2009-10	Delay in acquisition of Forest Land.
13	JK 5 OCP	OC	2.000	76.150	06.01.06	2009-10	2009-10	On Schedule
14	Sravanapally OCP	OC	2.000	94.000	28.06.06	2008-09		Kept on Hold
15	Indaram OCP	OC	1 200	91.200	23.02.07	2011-12	2011-12	On Schedule
16	Medapalli OCP Expansion	OC	3.000	83.300	26.06.07	2008-09	2008-09	Completion report will be submitted in the ensuring Board meeting.
17	Manuguru OC-II Extension	OC	4.000	44.2.10	26.06.07	2009-10	2008-09	Completion report will be submitted in the ensuing Board meeting.
18	RG OC-l Expansion Phase-ll	OC	3.000	79.520	12.10.07	2010-11	2009-10	On Schedule
	Extension	OC	4.300	43.120	12.10.07	2009-10	2008-09	Completion report will be submitted in the ensuing Board

								meeting.
	"^t^Proiect	OC	1.250	91.500	03.01.08	2010-11	2009-10	On Schedule
	i "^L^	OC	1.500	50.460	03.01.08	2011-12	2011-12	On Schedule
	4 ^r—	UG	1.500	270.000	23.03.07			Deferred to XII Plan.

Annexure- IV >>> Proposed New Projects for additional production with targets & timelines

Company	**Already Approved**	**Schedule of Approval**			**Total**
		09-10	**10-11**	**11-12**	
ECL	6	2	1	2	11
BCCL	-	3	3	-	6
CCL	12	5	8	-	25
NCL	2	1	-	-	3
WCL	20	6	6	5	37
SECL	10	8	-		25
MCL	11	1	2	4	18
NEC	4	-	3	2	9
TOTAL	**65**	**26**	**23**	**20**	**134**
Capacity (Mty)	155.42	79.85	39.35	34.32	308.94
Contribution (Mte) (11-12)	$	29.07	6.12	-	123.21
$ - Contribution 88.02 Mte already included in Ongoing Projects					

Global Coal Production and Consumption (Source CIL – 2002 – 2009)

Coal is the most widely available and well distributed fossil fuel in the world. China is the largest producer of coal 3,050.0 million tons, or 44.0% of the total worldwide production in calendar year 2009, followed by the United States 973.2 million tons, or 14.0% of the total worldwide production in calendar year 2009. In fiscal 2010, India's coal production was 532.06 million tons. Most of the coal produced in these countries is utilized in their respective domestic markets.

Worldwide coal production statistics (Calendar year 2002 – 2009)

Worldwide coal production	(in million tons)															
	2002	**% of Total**	**2003**	**% of Total**	**2004**	**% of Total**	**2005**	**% of Total**	**2006**	**% of Total**	**2007**	**% of Total**	**2008**	**% of Total**	**2009**	**% of Total**
China	1,454.6	29	1,722	33	1,992.3	36	2,205.7	37	2,373	38	2,526	39	2,803.3	41	3,050	44
USA	992.7	20	972.3	18	1,008.9	18	1,026.5	17	1,054.8	17	1,040.2	16	1,063.0	16	973.2	14
India	358.1	7	375.4	7	407.7	7	428.4	7	449.2	7	478.4	7	515.9	8	557.6	8
South Africa	220.2	4	237.9	4	243.4	4	244.4	4	244.8	4	247.7	4	252.6	4	250.0	4
Indonesia	103.4	2	114.3	2	132.4	2	152.7	3	193.8	3	216.9	3	229.0	3	252.5	4
Russian Federation	255.8	5	276.7	5	281.7	5	298.3	5	309.9	5	313.5	5	328.6	5	298.1	4
Australia	340.8	7	350.4	6	364.3	6	375.4	6	382.2	6	392.7	6	397.6	6	409.2	6
Others	1,127.1	23	1,139.4	21	1,155.0	20	1,159.7	19	1,178.9	19	1,192.7	18	1,203.6	17	1,150.0	16
Total world	**4,852.7**		**5,188.4**		**5,585.7**		**5,891.1**		**6,186.6**		**6,408.1**		**6,793.6**		**6,940.6**	

Approximately 3,278.3 mtoe of coal was consumed worldwide in 2009, almost at the same levels as compared to the consumption in 2008. Most of the countries have a congruent consumption and production pattern, except Australia, which produces much more than its domestic demand. China consumes the maximum amount of coal, while India is the third largest consumer of coal. Asia, the biggest market for coal, currently accounts for 60.0% of global coal consumption, owing to China and India, who are the primary consumers. As per the industry experts the global non-coking coal demand to increase at a CAGR of 3.5% between 2008 and 2013 and believes that China and India are projected to account for more than half of the total non-coking coal demand by 2013.

The share of Asia in total coking coal consumption is expected to increase from 70.0% in 2008 to 75.0% in 2013, while Europe's share is expected to decline from 23.0% in 2008 to 19.0% in 2013. The world non-coking coal consumption in 2008 for North America (1,099.1 million tons), South and Central America (16.9 million tons), Middle East (11.9 million tons), Africa (208.2 million tons) and Asia Pacific (3,374.4 million tons) is projected to rise to 1,103.9 million tons, 17.3 million tons, 13.3 million tons, 223.7 million tons and 4,355.5 million tons respectively by 2013 while the non-coking coal consumption for Europe and Eurasia is expected to decline from 1,074.8 million tons to 1,071.8 by 2013. Accordingly, the demand for non-coking coal in India is projected to increase from 491 million tons in 2008 to 857 million tons in 2013. Further, the combined share of China and India in total world consumption is expected to increase from 49.0% in 2008 to 55.0% in 2013.

Approximately 29.4% of the world's primary energy needs was met through coal in 2009, and coal was used to generate 41.0% of electricity used throughout the world. Further, about 13.0% of the total hard coal production is used by the steel industry. Generally, growth in coal consumption in developing countries is a result of higher rates of economic growth and increasing rates of electrification. According to the IEO 2010, the world coal consumption is projected to increase by 56.0%, from 132 quadrillion Btu in 2007 to 206 quadrillion Btu in 2035. The growth rate for coal consumption projected to amount to 1.1%

per year from 2007 to 2020 and 2.0% per year from 2020 to 2035. In addition, coal’s share of total world energy consumption is projected to increase to 28.0% in 2035 while its share in the power generation sector is projected to be approximately 43.0% in 2035.

(Source: CIL)