

3.1 Estimation of Coal Reserves

In India, estimation of coal reserves is computed by GSI on the basis of the Indian Standard Procedure (ISP) code of 1956. It is a geological reserve classification system which addresses only the volume and tonnage, i.e. the reserve of coal and not the actual structural delineation. The structural delineation provides valuable information so that the reserves are economically and technically amenable to extraction.

Though GOI took a decision in May 2001 to do away with ISP and implement the internationally accepted system of United Nations Framework Classification (UNFC) for minerals which lays down a standard procedure for calculating the size of reserves and resources based on a three-dimension system with technical feasibility, economic viability and geological estimate, no action was taken till the PMO directed (April 2007) the MOC to examine the issue. Consequently, CMPDIL undertook (November 2011) a study for converting the existing system of coal reserve classification to UNFC. The draft report has since been submitted (March 2012) by CMPDIL to the GOI. Final decision in the matter is awaited.

3.2 Inadequate drilling capacities for proving reserves

The Expert Committee (December 2005) had suggested that MOC should make all possible efforts to enhance the drilling capacity of CMPDIL from 3 lakh metre per annum to at least 15 lakh metre per annum.

Audit noticed that target for exploratory drilling by CMPDIL and others in the XI Plan period was 7.50 lakh metre for CIL blocks and 13.70 lakh metre for non-CIL blocks against which the achievements were 5.88 lakh metre and 7.82 lakh metre respectively, leading to a shortfall by 1.62 lakh metre (CIL blocks) and 5.88 lakh metre (non-CIL blocks) vis-à-vis the targets of the XI Plan. As of March 2011, 1828 million tonne of coal reserve was established. The drilling capacity of CMPDIL was expected to be only 3.44 lakh metre in 2010-11 as against the target of 15 lakh metre per annum as suggested by the Expert Committee.

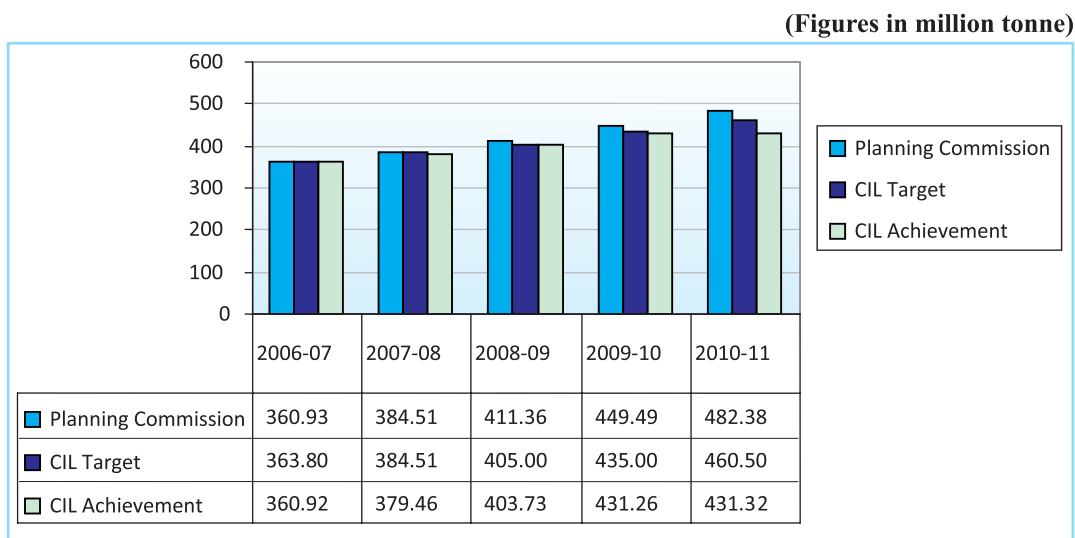
The Ministry stated (February 2012) that in case of regional exploration against a target of 7.47 lakh metre of drilling (revised estimate), 5.30 lakh metre was achieved upto January 2012. The expected achievement at the end of XI Plan is 5.69 lakh metre. The shortfall of 1.78 lakh metre in drilling is stated to be non availability of forest clearance despite active persuasion by CMPDIL. The Ministry further added that as regards detailed exploration in non-CIL blocks, CMPDIL has submitted a

scheme to undertake 13.50 lakh metre of detailed drilling. The likely achievement (other than outsourcing) was 7.62 lakh metre of drilling against the target of 7.12 lakh metre (revised estimate). Outsourcing of drilling work of 18 blocks involving 7.28 lakh metre of drilling was proposed to be completed in three years after awarding the contract in 2008-09 as against which the achievement (upto January 2012) was 4.97 lakh metre. Thus a balance of 2.31 lakh metre of drilling was required to be completed in the last two months of the terminal year of XI Plan. Low progress in drilling was due to non-clearance of forest land. It was further stated that enhancement of departmental capacity through expansion and modernisation was taken by introduction of mechanical equipment and additional drills. In respect of drilling in CIL areas, it was proposed to drill 5 lakh metre in the XI Plan against which 11.2 lakh metre of drilling was likely to be achieved.

In brief, CMPDIL needs to increase its drilling capacity of non-CIL blocks as also engage other agencies for accelerated exploration, assessment of coal reserves and preparation of geological reports.

3.3 Production of Coal by CIL

Production by CIL against its internal targets and the targets fixed by the Planning Commission for five years ending 31 March 2011 is given below:



As would be seen from the above, the annual production of CIL has been more or less in line with its internal targets during the period from 2006-07 to 2010-11. The annual production ranged between 99.21 per cent and 99.14 per cent of the targeted production during 2006-07 to 2009-10, but, decreased to 93.66 per cent in 2010-11. However estimated production (April 2011) for 2011-12 were short of targets fixed by the Planning Commission by 73.50 million tonne and 39.50 million tonne as per the original and revised targets respectively. Against an envisaged growth rate of 43.07 per cent (original) and 33.73 per cent (revised) for XI Plan, the actual growth in production

was only 19.51 *per cent* in four years till 2010-11. Even the reduced target of production by the Planning Commission in the mid-term appraisal, was further lowered by 8.12 *per cent* by CIL for 2011-12.

The main grounds for fixation of lower production targets were delays in environment and forest clearances and non-availability of sufficient number of railway wagons.

Non achievement of targets by CIL resulted in the following:

- CIL failed to supply 54.41 million tonne of coal as per the Fuel Supply Agreements (FSA) during the period 2008-09⁷ and 2010-11.
- Planning Commission suggested sale of at least 20 *per cent* of the non-coking coal production through e-auction for effective discovery of market price of coal. The Expert Committee (December 2005) also recommended e-auction sale for a minimum of 10 *per cent* of domestic production initially and thereafter increase the same to 20 *per cent* by the third year and to reach 30 *per cent* over a period of 5 to 7 years. New Coal Distribution Policy 2007 (NCDP) envisaged that around 10 *per cent* of annual production would initially be offered for e-auction. The percentage of e-auction of non-coking coal production was 12.96, 11.57 and 11.94 during 2008-09, 2009-10 and 2010-11 respectively. Although e-auction prices were above the notified prices by 58.10 to 80.70 *per cent*, higher e-auction sales could not be resorted to as CIL failed to meet its commitments under the FSA.

The Ministry stated (February 2012) that the production target was fixed by Planning Commission on the basis of assessed demand of coal from various stakeholders (Power, Steel and other sectors) whereas CIL's production target was fixed keeping in view the actual performance of previous years with an expected growth rate. However, the projected level of power generation reduced from 1,00,000 MW in the beginning of the XI Plan period to about 70,000 MW, causing decrease in demand of coal. Even with reduced rate of production, the accumulation of stock within the X plan period increased from 45.60 million tonne (as on 1 April 2008) to 69.17 million tonne by the end of 2010-11, giving no room for further production. Besides, there were other reasons⁸ also which acted as an impediment for expansion of new projects resulting in the variations of the targets from original XI Plan document and Mid Term Appraisal.

The reply of the Ministry is to be viewed in the light of the following:

- CIL failed to meet the FSA commitments, which gradually increased over the years.

⁷ *The earlier years of XI Plan have not been mentioned as the system of linkage was replaced by FSA in October 2007 as per NCDP 2007.*

⁸ *Embargo imposed in view of Comprehensive Environmental Pollution Index (CEPI), delay in forestry and environmental clearance, evacuation problem, law and order problem mainly in Jharkhand and Orissa, delay in land acquisition and rehabilitation and resettlement problems.*

- There were large imports of non-coking coal over the years.
- Even after mid- term corrections by Planning Commission, there was further down scaling of the targets/production by CIL.

3.4 Absence of mechanism for monitoring end use of Coal

New Coal Distribution Policy, 2007 (NCDP) envisages distribution of coal to small and medium consumers an effective manner. However, no mechanism is in place in the subsidiaries of CIL to monitor supply of coal through state nominated agencies and to verify the end use of coal. Non-verification of credentials not only defeats the objectives of NCDP for distribution of coal to small and medium consumers, but is also fraught with the risks of diversion and sale in the black market.

The Ministry stated (February 2012) that CCL, one of CIL subsidiaries introduced the system of verification of documents from such consumers and it was decided that the efficacy or implementation of this system would be obtained from the subsidiary. Based on the same, a decision on the system of verification of consumers would be decided by the Ministry.

3.5 De-reservation of CIL coal blocks

CIL carried out an exercise in 2004 for identification of coal blocks required for maintaining the production at the XI Plan level upto 2036-37 and 289 additional blocks were identified. The total reserves to be retained by CIL, together with the then existing mines and projects, worked out to around 93,000 million tonne.

Energy Coordination Committee⁹ (ECC) constituted by the Hon'ble Prime Minister of India, in July 2005, decided (February 2006) that since out of 289 coal blocks (229 explored and 60 unexplored) reserved for CIL till then, only 150 blocks were planned for production by CIL upto 2011-12, in the interest of increasing the supply of coal in the country, some of the 79 coal blocks which were explored in detail should also be made available to others for mining.

MOC advised CIL to retain only those blocks which were projected for production by the terminal year of the XI Plan and relinquish the remaining blocks for captive allocation. Accordingly, MOC de-reserved (May 2006) 48 CIL blocks with 9217.27 million tonne of coal reserves (40 explored with GR of 5831.27 million tonne and 8 unexplored with GR of 3386 million tonne) for captive allocation. This, together with 5 CIL Blocks allotted (January 2006) to NTPC Limited and three blocks (Moher and

⁹ *Chaired by the Hon'ble Prime Minister, with Ministers of nodal Ministries (Finance, Power, Petroleum), Planning Commission etc.*

Moher Amlohri allotted in September 2006 and Chhatrasal allotted in October 2008) to Sasan UMPP, led to a further release of 3780 million tonne of coal reserves from CIL. After the de-reservation of the above blocks, CIL was left with around 81500 million tonne of coal reserves.

Audit examined the status of these 48 blocks de-reserved from CIL as of June 2011 and found the following:

- Nine blocks remained un-allocated.
- Three were de-allocated after allocation.
- Nine blocks were yet to commence production. In these, the normative production date was over.
- In the balance 27 blocks, normative production schedules were from July 2011 to April 2014.

Further, the guidelines for allocation of captive coal blocks clearly stated that "the blocks offered to private sector should be at reasonable distance from existing mines and projects of CIL in order to avoid operational problems". Audit, however, observed that de-reservation of Moher and Moher-Amlohri Extension from NCL in September 2006 and allocation to Sasan UMPP resulted in sharing of boundary of Amlohri Opencast Project of NCL with the private party. As such NCL could not access coal reserve of 48 million tonne of its Amlohri OCP. This also reduced its project life from 24 to 20 years. Similarly, the sharing of boundary of Nigahi Opencast Project of NCL with Moher-Amlohri Extension resulted in reduction of mineable reserves by 9 million tonne.

Contrary to the expectations of the Energy Coordination Committee for early realisation of production potential offered by these proven coal reserves, no production could take place. While CIL had to relinquish these coal blocks, no production could materialize from these blocks. Thus, the expectation of early realisation of coal reserves by de-reservation of coal blocks from CIL on urgent basis and re-allocation of the same to other parties remained unfulfilled.

CIL has been engaged in working on an 'Emergency Production Plan' in the Xth Plan to meet the rising demand of coal by advancing the production schedule in 12 existing mines/ ongoing projects and by taking up four new projects through outsourcing production of coal and removal of overburden. With de-reserving of CIL coal blocks for captive mining, it was imperative that the requests of CIL for additional blocks are considered on priority.

Audit, however, noted that requests of CIL for additional blocks were not acceded to/acted upon by MOC as discussed below:

- CIL requested (August 2008) MOC to allocate 138 blocks with reserves of 57570 million tonne. This was revised (September 2011) by CIL to 116 blocks with 49790 million tonne of GR. Final decision of MOC is however awaited. This would adversely affect the production plans of CIL.
- MOC allocated (November 2008) Rajhara North block for captive mining by de-reserving from CIL despite the request made (January 2008) by CIL for not de-reserving the block, which had created a surplus of more than 400 employees.
- MOC allotted (October 2009) Moira Modhujore North block for captive mining which was inadvertently included in the list of blocks for allotment to other players and the request of ECL not to de-reserve was turned down (January 2008) by MOC. At the time of de-reservation, ECL had already worked partially in the block and it was also necessary for ECL to increase its production substantially under the revival package (November 2004) of BIFR.
- The Behraband North and Vijay Central coal blocks under mining lease of SECL were de-reserved from CIL. These blocks were to be developed as a highly mechanized high capacity underground mine for SECL. The Behraband North block was operated by SECL before de-reservation. The above blocks had not been allocated by MOC till November 2011, thereby defeating the purpose of de-reservation of these blocks from SECL.

The Ministry stated (February 2012) that the proposal to de-allocate the coal blocks which were not part of the plans of CIL till 2026-27 is only a recommendation of the Expert Committee constituted to give a report on the reforms in coal sector whereas identifying the blocks which are to be mined by CIL in the 12th Plan period and beyond for allocation is the decision of Energy Coordination Committee (ECC), which was meant to improve the availability of power. The Ministry further added that the revised list of blocks requested by CIL for allocation is under consideration of the Government and that these blocks are not likely to come into production during 12th or 13th Plan periods. As far as coal blocks- Rajhara North, Moira Modhujore, Behrabandh North and Vijay Central are concerned, it added that these blocks were identified by CIL/CMPDIL themselves in pursuance of the decision of ECC, which were not likely to come into production by 12th Plan, for allocation for captive purposes. Further, there is delay in allocation of Behrabandh North and Vijay Central coal blocks due to court cases. The Vijay Central coal block has been allotted to CIL/SECL as leader in leader-associate model on 01.11.2011. On transfer of land from NCL to Sasan Power Ltd., consultations were held in the MOC. NCL has been asked to resolve the matter as per the legal opinion given by Department of Legal Affairs on the issue of transfer of land acquired under Coal Bearing Act.

The contention of the Ministry is not appreciated in view of the following:

- CIL had stated (March 2006 and August 2008) that the idea of releasing blocks not required by CIL for production purpose upto the end of XIth Plan was not in the best interest of CIL or the country.

- Study carried out by CIL in 2006 depicted that the production from the blocks available with CIL would attain a peak of 664 million tonne in 2016-17 and thereafter, would decline to 642 million tonne in 2021-22 and 619 million tonne in 2026-27. The decline would accelerate after 2026-27 due to exhaustion of existing mines and reserves of completed projects.
- De-reservation of CIL blocks was against the recommendation of the Expert Committee on Road Map for Coal Sector Reforms (December 2005) which advocated de-reservation of CIL blocks that cannot be put into production before 2026-27.
- ECC decided (February 2006) the basis on which the said 48 blocks were taken out from CIL after the submission (December 2005) of the report by the Expert Committee with a view to improve the availability of power. However, as observed above, de-reservation has not yielded any result so far.
- As per NCDP 2007, CIL has to meet the coal demand of all the customers in India as per the extant rules given in the policy even by resorting to imports. In fact, CIL had stated (August 2008) that even import of coal arising from widening gap between demand and domestic availability of coal would not be feasible due to constraints of port, infrastructure and availability of coal in international market. The several explored blocks with substantial reserve were taken away from CIL. CIL would now have to increase production from unexplored blocks which would take longer time to develop. After de- reservation of 48 CIL blocks, CIL demanded for additional 138 unexplored blocks (approximately 57570 million tonne geological reserves) in August 2008. This is still under the consideration of MOC.

3.6 Production Performance of open cast mines

During the period from 2006-07 to 2010-11, open cast mines contributed 88 to 90 percent of the total production of CIL. The production of the open cast mines of CIL during the above period was as below:

(Figures in million tonne)

Company	2006-07		2007-08		2008-09		2009-10		2010-11	
	Target	Actual	Target	Actual	Target	Actual	Target	Actual	Target	Actual
ECL	22.57	22.20	23.18	15.74	20.34	19.74	21.75	21.83	24.20	23.43
BCCL	19.59	19.30	20.62	20.75	21.50	21.38	23.45	23.61	24.75	25.31
CCL	39.97	39.36	42.00	42.32	44.74	41.68	46.05	45.61	48.34	46.25
NCL	52.00	52.16	58.00	59.62	61.25	63.65	66.50	67.67	72.00	66.25
WCL	32.10	33.30	32.39	33.53	32.75	34.59	34.85	36.12	36.35	34.95
SECL	71.00	72.30	74.04	77.05	78.00	83.58	88.50	90.18	93.50	95.90
MCL	77.59	78.03	85.60	85.89	96.11	94.19	107.20	101.88	114.46	98.11
NEC	0.90	0.94	1.70	1.01	1.02	0.96	1.20	1.11	1.25	1.10
CIL	315.72	317.59	337.53	335.91	355.71	359.77	389.50	388.01	414.15	391.30

It would be seen from the above that there has been continuous rise in production of coal from the open cast mines by CIL. However, there was an aggregate shortfall of production in ECL by 9.1 million tonne, CCL by 5.88 million tonne and MCL by 22.86 million tonne during 2006-07 to 2010-11.

The Ministry stated (February 2012) that the aggregate shortfall in production in the mines of ECL, CCL and MCL was mainly due to severe land acquisition and rehabilitation problems. Moreover, evacuation problems (supply of rakes) in some growing coalfields i.e., North Karanpura, Talcher, IB Valley and Mand Raigarh, caused build up of pit head stocks which resulted in restrictions of production in some subsidiaries. However, action would be taken to increase production in opencast and underground mines by introduction of appropriate technology, infrastructure and proper monitoring at every level.

3.6.1 Backlog in removal of overburden hindering production

In the open cast mines, coal can be accessed only when overburden¹⁰ (OB) is removed. Backlogs in OB removal have adverse effect on the production of coal. The shortfall in OB removal ranged from 5 to 12.5 per cent.

Reasons for shortfall in OB removal as analysed in audit in the four subsidiaries (ECL, CCL, NCL and WCL) were as follows:

- Failure of departmental equipments in Rajmahal and labour problems in Sonepur Bazari and Kottadih (ECL);
- Delays in forest clearance and release of land at Konar, North Urimari, Karo and Rohini; law and order problems (CCL);
- Sliding of OB benches in Umrer (WCL);
- Delays in award of contracts for removal of OB in Dudhichua, Nigahi, Amlohri and Bina; delays in supply of equipment, poor performance of shovels and dumpers, release of land at Khadia (NCL) etc.

The Ministry stated (February 2012) that backlog of OB is generally calculated on the basis of average Stripping Ratio (SR). The project report specified only one ratio for the entire life of the project which was not correct and needed to be broken down in different stages of working. The present methodology is to calculate the actual requirement of OB to be removed depending upon the situation and as such may not tally with one single figure of SR mentioned in the Project Report.

¹⁰ **The rock, soil and eco-system that lies above a coal seam or ore body which is removed during surface mining.**

The method adopted by CIL to ascertain the performance in OB removal at the end of a particular year is the quantity by which the actual removal of OB falls short of targeted removal in that year. However, the actual backlog in OB removal on a particular date should be worked out on the basis of cumulative backlog of OB removal. Cumulative OB removal backlog in any specific year is calculated by subtracting total quantity of OB removed till that year from total quantity of OB required to be removed up to that year as per average stripping ratio mentioned in the project report. The cumulative backlog in removal of OB would exceed the backlog as calculated by CIL since the targeted removal is generally lower as it is based on the existing excavation and transportation capacities and not on the average SR (OB to coal) given in the project report. The cumulative backlog also indicates the exact status of mining in an open cast mine.

Management should rectify the methodology to break down the stripping ratio in different stages of working instead of adopting one single ratio under the existing system.

3.7 Production performance of underground mines

In underground mining, holes are drilled and blasted in the exposed coal seams. The blasted materials are mined by conventional or though mechanised/ semi-mechanised method and loaded manually or mechanically and brought to the surface from the underground by conveyors and transported for crushing, eventual storage and despatch.

During 2006-07 to 2010-11, seven underground projects with a capacity addition of 2.36 million tonne were completed with a capital outlay of ₹ 253.01 crore. The production performance of underground mines of CIL subsidiaries from 2006-07 to 2010-11 is given in table below:

Targets and achievements of underground mines

(Figures in million tonne)

Subsidiaries/ CIL	2006-07		2007-08		2008-09		2009-10		2010-11	
	Target	Actual	Target	Actual	Target	Actual	Target	Actual	Target	Actual
ECL	10.43	8.27	10.23	8.32	10.66	8.39	9.25	8.23	9.50	7.37
BCCL	5.61	4.90	4.58	4.46	5.00	4.13	4.55	3.90	4.25	3.70
CCL	2.03	1.96	2.00	1.83	2.26	1.56	1.95	1.47	1.66	1.27
NCL	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
WCL	9.90	9.92	10.01	9.98	10.30	10.11	10.15	9.62	10.15	8.71
SECL	17.50	16.20	17.46	16.74	18.00	17.57	17.50	17.83	18.50	16.80
MCL	2.41	1.97	2.40	2.12	2.89	2.15	2.10	2.20	2.29	2.17
NEC	0.20	0.11	0.30	0.09	0.18	0.05	0.00	0.00	0.00	0.002
CIL	48.08	43.32	46.98	43.54	49.29	43.96	45.50	43.25	46.35	40.02

As would be seen from table that production from underground mines has stagnated around 43 million tonne from 2006-07 to 2009-10 and decreased to 40 million tonne in 2010-11, which was 9.28 per cent of the total production of CIL in 2010-11.

3.8 Washing of coal

Indian coal contains higher percentage of ash as compared to coal of major coal exporting countries. Hence, washing of coal becomes necessary to ensure a more consistent fuel supply to the steel (coking coal) and power (non-coking coal) sectors. The existing washeries of CIL were not able to cater the coal washing requirements and were depending on private washeries.

In order to bridge the gap, CIL decided to set up 20 coal washeries with a total throughput capacity of 111 million tonne per year, out of which seven were coking coal washeries with a total capacity of 21.1 million tonne per year and 13 were non-coking washeries with a total capacity of 90 million tonne per year. The washeries were to be developed on 'Build Operate and Maintain' mode. CIL's efforts for proposed augmentation of production of washed coal were still under process (February 2012).

The Ministry attributed (February 2012) delay in implementing the washery projects to forestry/ environment clearance, land acquisition, re-tendering, evaluation of tender etc.

3.9 Mismatch between excavation and transport capacities

Excavation and transport capacities require synchronisation. Mine capacity of an individual project is assessed by CMPDIL with reference to the population of Heavy Earth Moving Machinery (HEMM) and their capacity both for Excavation Transportation.

CMPDIL reported (March 2011) that in 31 projects, the excavation capacity was more than the transportation capacity and in 12 projects excavation capacity was lower than transportation capacity. Such mismatch adversely affects production on one hand where excavation capacity was more but could not be utilised leading to accumulation at pit head. On the other hand, where the transport capacity was more, CIL could not utilise its dumpers and shovel for increasing production.

The Ministry stated (February 2012) that bridging the mismatch of excavation and transport capacities was an ongoing process as far as feasible. This was achieved by shifting of existing equipment from one mine to another to the extent possible, surveying off of equipments which covered their rated life and providing replacement for equipments.

3.10

Lower availability and lower utilization of HEMM

In order to achieve the original XI Plan target of 520.50 million tonne of coal production by CIL in 2011-12, MOC envisaged certain population of HEMM for CIL in its Report on 'Overview on Coal Industry in India' (June 2007). Actual population of HEMM in CIL during the period from 2006-07 to 2010-11 vis-à-vis those envisaged in the above report is as below.

Name of equipment	As on 31 March 2007	As on 31 March 2008	As on 31 March 2009	As on 31 March 2010	As on 31 March 2011	Population envisaged by MOC as on 31 March 2012
Dragline	41	41	40	40	40	119
Shovel	686	687	703	747	754	843
Dumper	3364	3240	3293	3366	3217	3555
Dozer	989	998	1025	991	981	805
Drill	696	744	754	713	709	655

As would be seen from table, there is significant shortfall in the population of Dragline, followed by Shovels and Dumpers. The population of Dumpers and Dozers are on the decline.

Norms for availability and utilisation percentage of HEMM were fixed by CMPDIL way back in 1986 and have not been revised till date (November 2011). With the improvement in technology and performance of HEMM, any comparison of actual percentage of availability and utilization vis-a-vis such norms would not depict the realistic position of availability and utilisation of HEMM.

Audit further observed that CIL depicts availability and utilisation of HEMM as percentage of CMPDIL norms, instead of depicting the actual percentages. Audit recalculated the actual percentage of availability and utilisation of HEMM in CIL as a whole and compared the same with the CMPDIL norms. The results are shown in table below.

No.	Equipment	Availability percentage		Utilisation percentage	
		CMPDIL norms	Actual during 2006-07 to 2010-11	CMPDIL norms	Actual during 2006-07 to 2010-11
1	Dragline	85	78-85	73	66-78
2	Shovel	80	72-74	58	45-49
3	Dumper	67	66-67	50	35-37
4	Dozer	70	64-65	45	27
5	Drill	78	75-77	40	29-31

It would be seen from the above, the percentage of availability was generally below the norms for all the five equipments and the percentage of utilisation was also below the norms, except in the case of Dragline.

The Ministry stated (February 2012) that the matter pertaining to review of CMPDIL norms for availability and utilization would shortly be taken up with CMPDIL. The Ministry further admitted (February 2012) that the utilisation of equipment was affected mainly due to land acquisition problems resulting in shortage of working space, law and order problems resulting in stoppage of work, difficult geo-mining conditions – presence of faults, working on developed under ground pillars, which makes operation slow and increase in breakdown, presence of active fire in working faces, restricted blasting due to nearby habitants etc.

3.11 Delays in Execution of New Projects

In order to bridge the demand supply gap of coal, new coal projects are required to be completed in a time bound manner. The Expert Committee emphasised (December 2005) the setting up of a permanent Special Task Force to monitor progress of clearances and project implementation of all projects required to be completed by the end of the XI Plan to fully realise CIL's production plans including the Emergency Production Plan to enhance domestic coal production capacity. In the Action Taken Note, MOC stated (January 2012) that response from the Ministry of Environment & Forest is awaited.

In fact, the compliance of recommendation of the Expert Committee is yet to be effected as there had been instances of delays in implementation of projects.

Audit studied the delay in implementation of projects and impact thereof on production of coal as on 31 March 2011. It was noticed that in 32 projects under different subsidiaries of CIL, the delay in execution was ranging from 1 to 12 years due to problems of land acquisition, forest clearance, adverse geo-mining condition, tender finalization for equipment and construction of Coal Handling Plant (CHP) & railway siding, entailing loss of production by 115.95 million tonne.