CHAPTER-II

2. Performance Audit relating to Government Company

Activities of Odisha Mining Corporation Limited

Executive Summary

Odisha Mining Corporation Limited (OMC) was incorporated on 16 May 1956. The main objective was harnessing the mineral wealth of the State of Odisha through exploration, extraction as well as value addition. Presently, the mining activities of OMC are restricted to production and sale of iron and chrome ore. Government of Odisha had granted 34 mining leases to OMC covering 17,826.82 hectares of lease area. OMC was operating in 4,335.28 hectares (24 per cent) of land comprising six mines during the period 2012-17. Audit scrutiny revealed the following deficiencies:

Absence of Long Term Corporate Plan

Odisha Mining Corporation Limited had not prepared long term corporate plan, vision and mission statements as required under Corporate Governance Manual of Government of Odisha. In the absence of any long term corporate plan, OMC could not develop strategies to achieve its objectives.

Management of Mining Leases

Out of 34 mining leases, 26 mining leases were inoperative. Out of 26 inoperative mines, OMC did not commence any mining operations in eight mines since inception. In respect of rest 18 mines, the mining operations were discontinued. The mines remained inoperative for a period ranging from 07 to 37 years. Mines were inoperative mainly for want of statutory clearances and non-assessment of ore reserves.

Non-operation of mines resulted in unfruitful expenditure of ₹57.26 crore towards dead rent and watch ward expenses. Further, OMC retained four mines which did not have adequate ore reserves and incurred avoidable expenditure of ₹112.85 crore.

Production Performance

Odisha Mining Corporation Limited could not achieve the targeted production of ores during 2012-17. This resulted in shortfall in production of 114.45 lakh MT of iron ore and 2.70 lakh MT of chrome ore. Consequently, OMC lost the opportunity to earn revenue of ₹1,838.98 crore during 2012-17.

Odisha Mining Corporation Limited incurred avoidable expenditure of ₹138.63 crore due to non-segregation of natural iron ore fines from the crushed iron ore fines. Delayed action to obtain forest clearance for mining purpose resulted in shortage of space for storing of ores in separate stacks. Storage of ores in dump instead of separate stacks attracted higher rate of royalty payable to the GoO. Consequently, OMC incurred extra expenditure of ₹110.79 crore towards royalty.

Sales Performance

Odisha Mining Corporation Limited could not achieve the targeted sales in any of the year during 2012-17. The shortfall in achievement ranged from 21.04 per cent to 60.84 per cent in case of iron ore. Similarly, in respect of chrome ore, OMC had achieved sales target only during 2014-15. In rest of years, the shortfall in achievement ranged from 10.25 per cent to 57.69 per cent. OMC could not recover royalty of ₹37.28 crore from the buyers due to absence of suitable provision in the sales contract.

Inventory Management

The closing stock position of iron ore as on 31 March of each year of 2012-17 was more than production of respective years. OMC failed to put necessary infrastructure facility for evacuation of the produced ores. This resulted in accumulation of 66.95 lakh MT of iron ore valuing ₹417.92 crore as on 31 March 2017.

During the period 2012-17, there was a shortage of iron ore and chrome ore of 5.21 lakh MT valuing ₹146.01 crore beyond the norm prescribed by the Board of Directors of the OMC.

Sub-grade iron ore and chrome ore of 23.39 lakh MT valuing ₹714.87 crore was not accounted for in the books of accounts as of March 2017.

Project and Financial Management

Annual allocation of funds for investment in own projects ranged from ₹34.90 crore to ₹1,210.70 crore during 2012-17; however, availability of surplus funds ranged from₹5,149.82 crore to ₹5,867.13 crore. Against the allocation, the actual annual expenditure ranged from ₹2.16 crore to ₹118 crore during 2012-17.

Odisha Mining Corporation Limited failed to install an iron Ore Handling Plant, infrastructure facility and a Mechanical Evacuation System in its three major operating mines. The envisaged benefit of ₹1,189.97 crore per annum from two out of three projects could not be achieved.

As of March 2017, OMC invested ₹408.81 crore towards equity/preference shares in 12 joint ventures, subsidiary and associate companies. None of the projects could be completed so far (October 2017). OMC could not derive envisaged benefit from the projects.

Monitoring and Internal Control

The scope of internal audit did not include scrutiny of settlement of advances and outstanding liabilities. OMC, in the annual accounts of 2016-17, had written back liability of ₹71.34 crore and written off advance of ₹39.92 crore without any reconciliation. OMC had not formulated manuals relating to core activities like contract/production, cost and budget, marketing and sales, internal audit etc. OMC did not have a system of identification of non-moving, slow moving stores and their disposal.

Introduction

2.1 Odisha Mining Corporation Limited (OMC) was incorporated on 16 May 1956. The main objective was harnessing mineral wealth of the State of Odisha through exploration, extraction as well as value addition. Presently, the mining activities of OMC are restricted to production and sale of iron and chrome ore. OMC has eight regional offices[21] for mining operations.

Government of Odisha (GoO) had granted (1959-2017) 34 mining leases to OMC for production of minerals covering 17,826.82 hectare of lease area. The lease area included 12,362.52 hectares of forest land and 5,464.30 hectares of non-forest land as of March 2017. OMC, however, was operating in 4,335.28 hectares (24 *per cent*) of land comprising six[22] mines, during the period 2012-17. OMC had handed over one iron ore mine to Industrial Development Corporation of Odisha Limited for operation on agency basis. The rest of the 26 mines remained inoperative. The reasons for non-operation are discussed in **Paragraph 2.12**. Details of the mining leases showing nature of ore, areas, present status of operation along with reasons for non-operation are given in **Annexure-3**.

Mining process

The production of iron ore includes removal of overburden[23], raising of Run of Mines (ROM)[24] and sizing/crushing/screening of ROM. ROM is crushed into lump ore of 10-180 mm size which is further crushed into Calibrated Lump Ore (CLO)[25] of 5-18 mm/10-30 mm/10-40 mm sizes. This process also generates iron ore fines of less than 10 mm. The chrome ore is raised as friable[26] whose chrome ore content ranged from 10 *per cent* to 54 *per cent*. OMC has one Chrome Ore Beneficiation Plant (COBP) for processing low grade chrome ore into high grade chrome concentrate. It also has one Ore Handling Plant (OHP) for processing iron ore. In case of iron ore, lump ore produced from mines are sold directly or after crushing into CLO/fines. In case of chrome ore having chromium over 40 *per cent* are sold directly. Chrome ore below 40 *per cent* chromium content are sold after processing into high grade chrome concentrate in COBP.

Organisational Set up

2.2 Odisha Mining Corporation Limited worked under the administrative control of Department of Steel and Mines, GoO. The management of OMC was vested with a Board of Directors (BoD) consisting of 11 directors including a Chairman and a Managing Director (MD). The MD was the chief

[21] Daitari, Gandhamardan, Koira, J K Road, Bangur, Barbil, Angul and Rayagada
[22] Iron ore mines- Barpada Kasia, Daitari, Gandhamardan B and Kurmitar; Chrome ore mines- South Kaliapani and Sukrangi
[23] Rock or soil overlying in mineral deposit
[24] ROM is the immediate excavated material from earth which is predominately ore with certain amount of impurities
[25] Calibrated Lump Ore (CLO) is saleable ore obtained after crushing and processing of ROM
[26] Soft and fine ore

executive of OMC. MD was assisted by two Chief General Managers, seven General Managers and eight Regional Managers to carry out the day-to-day activities of the Company.

Scope of Audit

2.3 A performance review[27]of OMC was included in the Report of the Comptroller and Auditor General of India for the year ended 31 March 2011.The report was pending (July 2017) for discussion in the Committee on Public Undertakings (CoPU). The present Performance Audit conducted during April to July 2017 covered the activities of OMC for the five years ending March 2017. The activities of OMC were reviewed on the basis of test check of records at the Head Office and all the six[28] working mines of OMC.

Audit Objectives

2.4 Audit objectives of the Performance Audit were to assess whether:

- mineral mines were developed adhering to rules and regulations prescribed by Government of India (GoI)/GoO;
- production and sales activities were carried out economically and efficiently through approved policies adhering to guidelines of GoO;
- the mandate under Corporate Social Responsibility (CSR) was discharged effectively; and
- project and financial management including internal control and monitoring mechanism were adequate and effective.

Audit Criteria and Methodology

2.5 The sources of audit criteria adopted for assessing the achievement of the audit objectives were:

- Rules, regulations and provisions of Mines and Mineral (Development and Regulation) (MMDR) Act, 1957 with Amendments;
- Orissa Minerals (Prevention of Theft, Smuggling and Illegal Mining and Regulation of Possession, Storage, Trading and Transportation) Rules, 2007;
- Mineral Concession Rules (MCR) 1960, Mineral Conservation and Development Rules (MCDR) 1988;
- Forest Conservation Act (FCA) 1980, Forest Conservation Rules (FCR) 2003;

[27] Implementation of "Systems, Applications and Products in Data Processing (SAP)" in OMC

[28] Daitari Iron Ore Mines (DIOM), Gandhamardan Iron Ore Mines (GIOM), Kurmitar Iron Ore Mines (KIOM), Barpada Kasia Iron Ore Mines (BKIOM), South Kaliapani Chromite Mines (SKCM) and Sukrangi Chromite Mines (SCM)

- Water (Prevention and Control of Pollution) Act, 1974, Air (Prevention and Control of Pollution) Act, 1981, Environment Protection (EP) Act and Rules 1986;
- United Nations resolution regarding Sustainable Development Goals (SDG), Sustainable Development Framework and GoI notification related to Star Rating of mines;
- Minutes and agenda papers of the meetings of the BoD, annual budgets, annual production plans and production reports;
- Project reports/mining plans/mining schemes of the mineral mines;
- Notice inviting tenders, agreements/contracts for production and sale of ore; and
- Agreements with Joint Venture (JV) partners for development of mines.

Acknowledgement

2.6 Audit acknowledges the co-operation and assistance extended by OMC at various stages of conducting the Performance Audit. Audit explained its objectives, criteria, scope and methodology to OMC/GoO during an 'Entry Conference' held on 12 April 2017. Subsequently, audit findings were reported (6 October 2017) to OMC/GoO and discussed in an 'Exit Conference' held on 28 November 2017. Views expressed by them and replies furnished by GoO (23 November 2017) were considered, wherever necessary, while finalising this report.

Audit Findings

2.7 Audit findings are discussed in the following paragraphs.

Financial Position and Working Results

Financial position

2.8 The financial position of OMC for the last five years ended 31 March 2017 was as under:

Table 2.1: Financial position for the five years ended 31 March 2017

(₹ in crore)

Particulars	2012-13	2013-14	2014-15	2015-16	2016-17
Equity and Liabilities					
Share capital	31.45	31.45	31.45	31.45	31.45
Reserves and surplus	5149.82	5864.18	5656.55	5678.21	5867.13
Non-current liabilities	67.51	65.31	90.16	92.26	221.21
Current liabilities	1334.07	937.43	2238.06	1176.44	566.45
Total	**6582.85**	**6898.37**	**8016.22**	**6978.36**	**6686.24**
Assets					
Net block including capital WIP	101.85	106.90	129.60	161.06	658.54
Long term loans and advances	511.89	466.74	866.73	1395.89	725.13
Non -current investment	143.40	374.36	383.36	378.85	399.03

Particulars	2012-13	2013-14	2014-15	2015-16	2016-17
Other non-current assets	30.12	133.63	289.71	483.93	330.16
Current assets	5795.59	5816.74	6346.82	4558.63	4573.38
Total	**6582.85**	**6898.37**	**8016.22**	**6978.36**	**6686.24**
Net worth[29]	5181.27	5895.63	5688.00	5709.66	5898.58

(Source: Annual accounts of OMC Limited)

It would be seen from the overall financial position of OMC that:

- The net worth of OMC increased from ₹5,181.27 crore in 2012-13 to ₹5,898.58 crore in 2016-17 due to increase in reserves and surplus over the years. Current Liabilities (CL) had increased during 2014-15 mainly due to availing of short term loans. The short term loans were availed to meet advance income tax payment and for extending inter corporate loan to GRIDCO. CL decreased in subsequent years due to repayment of short term loans.

- Increase in fixed assets during 2016-17 was mainly due to increase in mining rights and intangible assets[30]. Long term loans and advances increased during 2014-16 due to extension of inter corporate loans to GRIDCO and Neelachal Ispat Nigam Limited (NINL). Current assets also increased by ₹530.08 crore in 2014-15 from 2013-14. This was due to increase in inventories, trade receivables and short term loans and advances. Current assets, however, decreased by ₹1,788.19 crore in 2015-16 due to decrease in cash and cash equivalents and availing of short term loans and advances. The decrease was due to extension of inter corporate loan and repayment of short term loan from banks.

Working results

2.9 The working results of OMC for the last five years ended 31 March 2017 were as under:

Table 2.2: Working result for the five years ended 31 March 2017

(₹ in crore)

Particulars	2012-13	2013-14	2014-15	2015-16	2016-17
Revenue from operations	1658.15	1853.88	1881.26	1546.42	2331.43
Other income	540.61	581.00	535.26	481.22	374.14
Total income	2198.76	2434.88	2416.52	2027.64	2705.57
Total expenditure	815.30	984.93	929.42	1039.65	1385.06
Profit before tax	1383.46	1449.95	1487.10	987.99	1320.51
Provision for tax	487.36	582.14	509.78	364.55	544.12
Profit after tax	**896.10**	**867.81**	**977.32**	**623.44**	**776.39**

(Source: Annual accounts of OMC Limited)

[29] Paid up capital + Reserve & surplus + Long term borrowings
[30] Expenses related to stamp duty, registration fee and NPV

It was noticed from the above that:

- OMC had earned profit in all the years, but this decreased from ₹977.32 crore (2014-15) to ₹623.44 crore (2015-16). This was mainly due to decrease in revenue from operations caused by depressed market conditions and increase in operational expenditure[31].

- Other income decreased in the year 2015-16 and 2016-17 mainly due to decrease in income towards interest on short term deposits.

Absence of Long Term Corporate Plan

2.10 The Corporate Governance Manual (CGM) of GoO (November 2009) required preparation of a corporate plan by State Public Sector Undertakings (PSUs). The corporate plan is a three years plan with annual operating and financial plans. It includes a detailed description of long term goals and objectives of the PSU. It also required State PSUs to prepare vision and mission statements based on the mandate given by the Administrative Department.

OMC had neither prepared any long term corporate plan nor any vision and mission statements. OMC had engaged (November 2016) a consultancy firm to prepare a Comprehensive Perspective Plan (CPP). The plan was yet to be finalised (October 2017).

Audit observed that in the absence of any perspective corporate plan, OMC could not develop proper strategies to achieve its objectives. As a result, production and sales activities were carried out on the basis of annual plan and budget. The annual plan overlooked requirements for long term goals as allocation of funds for ongoing plans and projects were made through annual budget.

The Government stated (November 2017) that the CPP prepared by the consultant in August 2017 had envisaged long term vision and mission of OMC. The fact, however, remained that OMC had not yet implemented long term corporate plan.

Management of Mining Leases

2.11 Mining leases were granted to an applicant under MMDR Act 1957, MCR 1960 and MCDR 1988. As per extant rules and regulations, mining leases were granted for a period not exceeding 30 years for which lease deeds were executed with the State Government. Mining operations were carried out as per mining plan approved by Indian Bureau of Mines (IBM). Operations of mines were also subject to rules and regulations framed under FCA 1980, EP Act 1986 and Water (Prevention and Control of Pollution) Act, 1974 and Air (Prevention and Control of Pollution) Act, 1981.

[31] Ore raising cost, stamp duty/ registration charges on renewal of mining leases, forest & environment expenses, selling & distribution expenses etc.

Delay in commencement of mining operations

2.12 As per Rule 28 (1) and (2) of MCR 1960, the lessee should commence mining operations within two years from the date of execution of lease deed. The State Government may cancel the lease in the event of delay in operations or discontinuation of operations beyond a period of two years. State Government, however, may grant extension of the lease after being satisfied that reasons for non-operation are beyond the control of the lessee. As of March 2017, the status of mining leases granted to OMC and inoperative mines were as under:

Table 2.3: Status of mining leases

Nature of the ore in mines	Number of operative mines	Number of inoperative mines						Total mines
		Since inception	Number of years since inoperative				Total inoperative mines	
			6-15 years	16-25 years	26-35 years	36 and above		
Chromites	03	3	02	02	01	-	08	**11**
Iron	02	1	06	01	-	01	09	**11**
Iron & Manganese	02#	1	02	01	-	-	04	**06**
Manganese	-	1	-	01	-	-	02	**02**
Limestone	-	-	01	-	-	-	01	**01**
Gemstone	-	2	-	-	-	-	02	**02**
Bauxite	01*	-	-	-	-	-	-	**01**
Total	**08**	8	11	05	01	01	**26**	**34**

(Source: Information furnished by Odisha Mining Corporation Limited)

\# includes one mine handed over to IDCOL for operation on agency basis.

* the lease was executed in January 2017 in which mining operations are yet to be carried out.

It was seen in audit that:

- In case of eight out of 26 inoperative mines, OMC did not commence any mining operations since inception. Mining operations were commenced during the period of lease in respect of remaining 18 mines. These mines, however, remained inoperative subsequently for a period ranging from 7 to 37 years. Mines were inoperative mainly for want of statutory clearances and non-assessment of ore reserves.

- In terms of FCA 1980, it was mandatory to obtain Forest Clearance (FC) from MoEFCC[32] for use of forest land for non-forest purpose under a lease. To obtain FC, Forest Diversion Proposal (FDP) was to be submitted to MoEFCC through Forest Department of the State.

  Audit observed that out of 26 inoperative mines, 24 mines involved forest land. Out of 24 mines, in case of 20 mines, OMC submitted FDPs after a delay ranging from 99 to 366 months since 25 October 1980[33]. In remaining four mines, FDPs were not yet submitted. The delay in the submission of FDP was mainly due to non-finalisation of joint verification of forest land, delay in finalising land use plan, non-assessment of ore reserves and delay in carrying out

[32] Ministry of Forest and Environment and Climate Change

[33] FC Act, 1980 came into force

instructions of Forest Department. This had resulted in delay in obtaining FC due to which mines could not be operationalised.

Government accepted (November 2017) the fact of delay in submission of FDP. It stated that submission of FDP was delayed due to non-finalisation of joint verification of the broken up forest area by Forest and Mining Departments. It also stated that the process of joint verification was streamlined in December 1996 on the basis of judgment of Supreme Court.

The reply was not acceptable as joint verification of the broken up forest area, finalisation of land use plan and assessment of ore reserve were required to be carried out under FCA, 1980 and FC Rules, 1981.

- Based on United Nations Framework Classification (UNFC) for minerals adopted by GoI, the IBM issued (April 2003) detailed guidelines on reporting resources and reserves. As per the guidelines, mineral reserves are to be assessed through geological assessment, feasibility assessment and economic viability. As per modifications (October 2003) to FC Act, 1980, the lessee has to obtain prior permission from MoEFCC for drilling of boreholes for assessment of ore reserves beyond norms.

  Odisha Mining Corporation Limited had carried out prospecting work for assessment of mineral reserves over an area of 4,028.96 hectares only (22.60 *per cent* of total lease area) in respect of 34 mines. Detailed exploration had been carried out in respect of one[34]mine only.

  Audit observed that due to belated action in applying to MoEFCC to obtain prior permission for drilling of boreholes, prospecting and assessment of ore was delayed. In absence of assessment of ore reserve through exploration, OMC was not in a position to obtain necessary FC.

  Government stated (November 2017) that the guidelines issued by MoEFCC allowed drilling of 20-25 bore holes per 10 square kilometer, which was not adequate. The reply was not acceptable as drilling of bore holes beyond the limit prescribed by MoEFCC was permissible with prior approval of GoI. OMC, however, did not take timely action in this regard.

- As per clause 9A of MMDR Act 1957, a lease holder has to pay dead rent for inoperative mines and royalty for operating mines. OMC had paid ₹15.14 crore towards dead rent. OMC also incurred ₹42.12 crore towards watch and ward during the period 2012-17 on inoperative mines. Failure of OMC to operate the mines resulted in unfruitful expenditure of ₹57.26 crore towards dead rent and watch and ward.

  The Government accepted the facts and stated (November 2017) that necessary steps were being taken for operationalising these mines.

[34] Mahaparbat mining lease

Payment of Net Present Value without assessing ore reserves

2.13 In terms of FCA 1980, decision of Hon'ble Supreme Court (October 2002/August 2003) and subsequent clarification by Forest Department (May 2010), the lessee has to pay Net Present Value (NPV) on the entire forest land included under lease which are required for mining operations. In the event of forest land is utilised for non-forest purpose without obtaining FC, lessee has to pay penal NPV as per norms decided by MoEFCC.

Audit observed that OMC paid ₹580.56 crore towards NPV pertaining to 27 mining leases (including 21 inoperative mines) covering an area of 7,728.90 hectares of forest land on which assessment of ore reserve had not been carried out. Subsequently, OMC surrendered (May 2014 to April 2016) four mines after retaining them for a period ranging from 41 to 50 years as there was inadequate ore reserve. OMC had paid ₹112.85 crore towards NPV in respect of these four mines. Thus, payment of NPV without conducting any assessment of ore reserves resulted in avoidable expenditure of ₹112.85 crore. Further, in respect of three operative mines covering 564.83 hectares of forest land, OMC carried out mining operations without obtaining FC. As a result, it had to pay (August 2012 to June 2016) penal NPV of ₹52.05 crore.

The Government stated (November 2017) that payment of NPV and penal NPV had been made as per demand of the Forest Department. The fact remained that OMC carried out mining operations without obtaining FC from MoEFCC resulting in payment of penal NPV.

Payment of Compensatory Afforestation charges

2.14 As per FCA 1980, the lessee has to pay Compensatory Afforestation[35] (CA) charges to the Forest Department of the State when FDP is processed. The amount shall be utilised for afforestation of non-forest land by the State Government. If forest land under lease has been utilised for non-forest purposes without approval, the lessee had to pay penal CA charges.

Audit observed that in violation of FCA 1980, OMC utilised 346.84 hectares of forest land for non-forest purposes in three mines. This had resulted in payment (September 1998 to September 2016) of penal CA charges of ₹3.45 crore.

The Government accepted the facts and stated (November 2017) that the violations were not intentional. It stated that the Forest Department did not condone the violation of FC Act resulting in payment of penal CA charges. The fact remained that OMC carried out mining operations without obtaining FC from MoEFCC resulting in payment of penal CA charges.

[35] Compensatory Afforestation refers to afforestation and regeneration activities carried out as a way of compensating for forest land diverted to non-forest purposes

Payment of NPV in case of SGBK mines

2.15 As per Paragraph 5(1) of MMDR Act 1957, the State Government can grant mining lease with the prior approval of Central Government. The lessee had to specify the mineral or minerals to be exploited in the lease application. As the mining lease covered both iron and manganese, OMC was required to submit mining lease application for both the ores. After receipt of approval of GoI, mining lease deed was to be executed by GoO complying with the terms specified by GoI.

GoO handed over (June 1982) Siljora Guruda Balda Kalimati (SGBK) mine having both iron and manganese ores to OMC for operation on agency basis[36]. However, OMC applied (August 1982) to GoO for operation of the mine as a lease holder. In their application, OMC proposed to operate the mine for manganese ore only instead of both iron and manganese ores. GoI conveyed (December 1993) their decision for grant of mining lease for manganese only subject to compliance of statutory provisions like obtaining FC. OMC could not prepare land use plan for obtaining FC as both manganese and iron ores were occurring in the entire mining lease area. As such OMC could not execute the lease deed. However, GoO allowed OMC to operate the mine on agency basis to produce manganese ore only till November 2006 and disallowed the mining operations thereafter. OMC, however, continued to possess the mine.

GoO, based on request made by OMC in December 2006, recommended (February 2007) GoI to consider approval of the lease for both the ores. The application was not accepted by GoI as retention of mining lease on agency basis was abolished in January 1999 under amendment to MCR, 1960. As a result the mining lease for the mine could not be executed. Subsequently, GoI decided (January 2017) to allocate the lease through auction. OMC had incurred ₹45.03 crore towards payment of NPV and other incidental expenses during 2010-17.

Audit observed that OMC failed to include both iron and manganese ore in the lease application. It also failed to surrender the mining lease subsequent to abolition of operation on agency basis in January 1999 resulting in avoidable expenditure of ₹45.03 crore.

The Government accepted (November 2017) the facts and stated that payment of NPV was made as per demand of Forest Department.

Delay in Implementation of Sustainable Development Goal

2.16 The United Nations adopted (September 2015) a resolution on sustainable development goals at the UN Sustainable Development Summit held in New York. The resolution included 17 goals covering sustainable issues[37] to be achieved by all the member countries including India by 2030.

[36] OMC would operate as an agent of GoO taking part in the management, control, supervision or direction of the mine

[37] Ending poverty and hunger, improving health and education, making cities more sustainable, combating climate change and protecting oceans and forests

OMC had not implemented energy conservation measures at mines

2.17 As a step towards promoting sustainable development practices in mining, IBM introduced (May 2016) Star Rating System[38] (SRS) for mines. As per the norms in the SRS, OMC had to carry out energy audit in its mining lease area under provision of Energy Conservation Act, 2001.

Audit observed that OMC did not conduct energy audit since 2001 in all the mines. OMC had not put an energy audit mechanism in place to identify reasons for higher consumption of energy. Further, low Power Factor[39] (PF) was noticed in Daitari Iron Ore Mine (DIOM). The actual PF ranged from 0.49 to 0.92 against the prescribed norm of 0.92 during November 2012 to March 2017. This resulted in payment of penalty of ₹0.70 crore in consumption of electricity for the mine.

The Government stated (November 2017) that, energy audit had been carried out during May 2017 to comply with the SRS norms. The fact, however, remained that no energy audit was conducted over a long period after Energy Conservation Act came into force in 2001.

OMC had not implemented Sustainable Development Goal

2.18 Sustainable Development Goal (SDG)- 15 of UN resolution required the following measures:

- Protect, restore and promote sustainable use of terrestrial ecosystems,
- Sustainably manage forest,
- Combat desertification and halt reverse land degradation and biodiversity loss.

During the process of beneficiation of chrome ore, COBP at South Kaliapani Chromite Mines (SKCM) generated tailings (ore waste of mines). The same were to be disposed of into a tailing pond located in mining lease area. The existing tailing pond was full of sludge and dumps clay and was not capable of accommodating more tailings. The rain water along with sludge and dump clay went outside the pond during heavy rain. Villagers in the neighbourhood protested this, as it created unhealthy conditions.

Audit observed that OMC had neither constructed a new tailing pond nor renovated the existing one. The tailings were discharged in the quarry of the mine violating the terms and conditions of mining plan and environmental norms. The proposal for construction of a new tailing pond could not be carried out as OMC did not obtain forest clearance for the purpose. As a result, IBM suspended the mining operations in April 2016. The suspension was temporarily withdrawn in July 2016. It was again imposed from May 2017. The suspension of mining operations, resulted in loss of production of 0.15

[38] A web enabled online system for evaluation of measures undertaken for sustainable mining
[39] It is a measure of how efficiently electrical power is converted into useful work output

lakh MT of chrome ores with consequential potential loss of revenue of ₹10.23 crore.

The Government accepted the facts and stated (November 2017) that action had been taken for construction of a new tailing pond in SKCM.

Production Performance

2.19 Odisha Mining Corporation Limited produced iron ore and chrome ore through engagement of private contractors. The production of ore, however, was subject to ceiling fixed by various statutory authorities such as MoEFCC, State Pollution Control Board (SPCB) and IBM. The production targets for each mine were decided by the BoD based on the various clearances obtained from statutory authorities and other factors. Audit observed the following deficiencies in production performance in operative mines:

Production target could not be achieved

2.20 Production targets for the five years ended 31 March 2017 vis-à-vis achievements thereof in respect of operative mines[40] of OMC are tabulated below:

Table 2.4: Production target vis-à-vis achievement

(Figures in lakh MT)

Mines	**2012-13**		**2013-14**		**2014-15**		**2015-16**		**2016-17**		**Total**		
	Target	***Actual***	***Target***	***Actual***	***Target***	***Actual***	***Target***	***Actual***	***Target***	***Actual***	***Target***	***Actual***	***Shortfall***
DIOM	30.00	8.46	21.55	5.71	13.50	17.07	35.00	31.18	30.00	24.85	130.05	87.27	42.78
GIOM	8.68	1.14	15.10	5.51	8.10	6.72	23.00	3.25	32.85	12.70	87.73	29.32	58.41
KIOM	15.00	14.41	15.00	11.74	15.00	6.83	24.00	24.40	24.00	24.09	93.00	81.47	11.53
BKIOM	1.50	0.69	1.30	1.42	1.35	1.08	1.65	0.88	0.00	0.00	5.80	4.07	1.73
Iron ore	**55.18**	**24.70 *(44.76)***	**52.95**	**24.38 *(46.04)***	**37.95**	**31.70 *(83.53)***	**83.65**	**59.71 *(71.38)***	**86.85**	**61.64 *(70.97)***	**316.58**	**202.13 *(63.85)***	**114.45**
SKCM	10.30	6.05	5.40	5.41	4.00	6.82	9.00	8.30	11.00	10.09	39.70	36.67	3.03
SCM	0.50	0.67	0.80	0.96	0.80	0.50	1.00	0.97	1.30	1.62	4.40	4.73	-0.33
Chrome ore	***10.80***	***6.72 (62.22)***	***6.20***	***6.37 (102.74)***	***4.80***	***7.32 (152.50)***	***10.00***	***9.27 (92.70)***	***12.30***	***11.71 (95.20)***	***44.10***	***41.40 (93.88)***	***2.70***

(Figures in bracket indicate achievements in percentage term)

(Source: Annual budgets, physical verification reports of ore)

[40] Daitari Iron Ore Mines (DIOM), Gandhamardan Iron Ore Mines (GIOM), Kurmitar Iron Ore Mines (KIOM), Barpada Kasia Iron Ore Mines (BKIOM), South Kaliapani Chromite Mines (SKCM) and Sukrangi Chromite Mines (SCM)

Chart 2.1: Target and achievement of iron ore

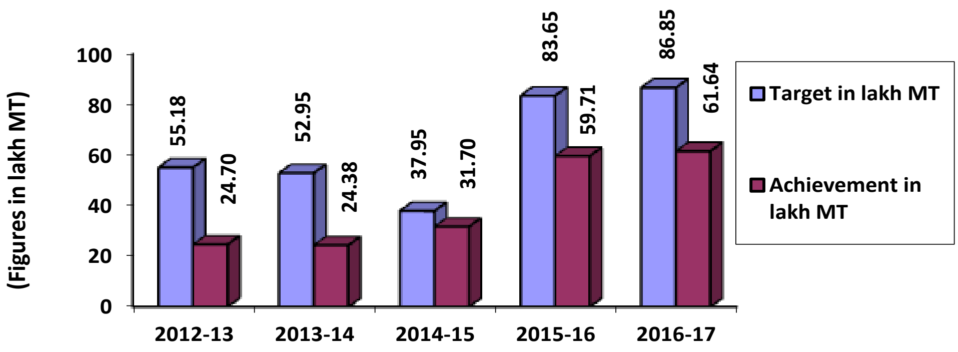
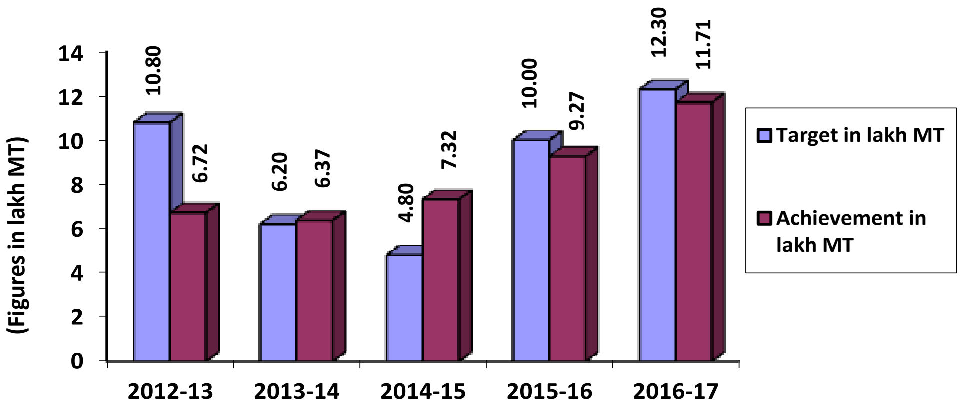


Chart 2.2: Target and achievement of chrome ore



It was seen in audit that:

- Odisha Mining Corporation Limited could not achieve its own target of production of iron ore during any of the five years ending 31 March 2017. The shortfall in production ranged from 16.47 *per cent* to 65.24 *per cent* during 2012-17. The maximum shortfall in production was noticed in GIOM and DIOM.

- In case of chrome ore, OMC achieved the production target during 2013-15, but it did not achieve the target in the year 2012-13 and 2015-17. The shortfall in production ranged from 4.80 *per cent* to 37.78 *per cent* during three out of five years of operation.

- The main reasons for shortfall in production were attributable to non-availability of statutory clearances, inadequate infrastructure for evacuation of produced ore. Space constraints in stockyards were also other factor which contributed for shortfall in production. These were discussed in **Paragraph 2.21**. OMC also could not store the produced ore in separate stacks in the absence of required statutory clearances and availability of space in the mines. This was discussed in **Paragraph 2.22**.

- OMC had to fix its production target on lower side due to non-availability of required statutory clearances in time. Further, despite fixing the target on lower side, OMC failed to achieve the targets during the period 2012-17. This resulted in shortfall in production of 114.45 lakh MT of iron ore and 2.70 lakh MT of chrome ore during 2012-17. Consequently, OMC lost the opportunity to earn revenue[41] of ₹1,838.98 crore during the aforesaid period.

  The Government stated (November 2017) that production target was revised considering constraints and situations prevailing at that time. Further, obtaining different statutory permissions/clearances were not in the control of OMC. The reply was not acceptable as process of obtaining statutory clearances was delayed by OMC itself in most of the cases.

Delay in obtaining FC resulted in shortfall of production and evacuation of produced ore

2.21 Mining lease area contains both forest and non-forest areas. Under FC Act 1980, it was mandatory to obtain FC from MoEFCC to carry out mining operations in forest areas. OMC was required to submit FDP to the MoEFCC through the Forest Department of GoO to obtain FC.

Before submission of FDP, OMC was required to carry out demarcation of forest land and broken up[42] forest land, enumeration of trees in forest land, identify land under compensatory afforestation. Further, OMC was to identify safety areas, obtain certificate from the GoO under recognition of Forest Right Act (FRA) 2006. The above activities were required to be completed and documents to be submitted with FDP.

The delay in obtaining FC and consequential production loss at three mines[43] are discussed below:

- OMC continued mining operations since 1967 in forest land of 249.97 hectares at Baliparbat Stock Yard (BSY) under DIOM without obtaining FC. As a result, Mining Department stopped mining operations from October 2011. OMC submitted final FDP in July 2012 only and obtained FC in August 2014. Thus, there was shortfall in achievement of targeted production of iron ore due to suspension of mining operations during the period October 2011 to August 2014.

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[41] Sales price – (variable cost + fixed cost)
[42] Forest area already used for mining before FC Act, 1980
[43] DIOM, GIOM and SKCM

The Government stated (November 2017) that OMC had submitted FDP four times during 1997 to 2010 prior to submission of final FDP in 2012. It stated that MoEFCC had delayed grant of FC.

The reply was not acceptable as OMC initiated FDP proposal only in 1997, whereas FC Act came into force in 1980. Final FDP could only be submitted in July 2012.

- Out of 1409.65 hectares of forest land at Gandhamardan-B mine, OMC had obtained FC for only 232.438 hectares in August 2007. It applied FDP for balance forest land only in August 2010. The delay in applying for FDP was due to failure of OMC to demarcate between forest land and broken up area, identify safety area and obtain certificates under FRA 2006. This had resulted in non-availability of mineable area required for ore production. As a result there was shortfall in achievement of targeted production during 2012-17. Further, the existing produced ore also could not be evacuated from mines due to space constraints.

  The Government stated (November 2017) that as a matter of practice, OMC had obtained FC for part forest area on previous occasions. The FDP for balance forest area was initiated only after obtaining FC for part forest area and completion of handover process from State Government. The reply indicated that OMC did not submit the FDP for the mineable forest area leased to it in time resulting in stoppage of mining operations.

- OMC was carrying out mining operations of chrome ore in 146.04 hectares out of 416.50 hectares of forest land at SKCM since January 1980. It applied for FDP for balance forest land only in January 2010. The existing diverted forest land was not sufficient to meet requirement of production, storage and handling of the targeted quantum of ore production. The FC was obtained in February 2016.

  The processing of FDP was delayed due to delay in identification of land for CA, enumeration work for forest areas and obtaining certificate under FRA 2006. This had resulted in non-availability of mineable area for production and evacuation of ore and there was shortfall in achievement of targeted production of ore during 2012-17.

  The Government stated (November 2017) that the delay in obtaining FC was due to delay in identification of land for CA and enumeration work for the forest area. Further, obtaining of certificate under FRA 2006 from the Collector was delayed. The reply was not acceptable as the above activities should have been completed before submission of FDP as per FC Act 1980.

Irregular stacking and storage of ore

2.22 As per Odisha Mineral (Prevention of Theft, Smuggling and Illegal Mining and Regulation of Possession, Storage, Trading and Transportation) Rule 2007, the produced minerals should be stacked in the mine in separate stacks for determining the quality and grade. In case of fully mechanised mines, if the lessee declares to pay highest rate of royalty, stacking and sampling shall be dispensed with. In such circumstances a lessee has to pay royalty applicable for highest grade of ore irrespective of actual grade of ore dispatched.

Odisha Mining Corporation Limited requested (August 2012) GoO to dispense with mechanism of stacking ore in separate stacks on the ground of space constraint. It agreed to pay highest rate of royalty. GoO agreed to the proposal in September 2012. The produced ores were thereafter stacked in dumps in the mines. All dispatches from the iron ore mines[44] thereafter were carried out paying highest rate of royalty.

Audit observed that though OMC had sufficient lease area, yet they inordinately delayed action to obtain FC as discussed in **Paragraph 2.12**. This resulted in shortage of space for storing of ores in separate stacks. OMC was liable to pay higher royalty to GoO as ores were stored in dumps instead of in separate stacks. Consequently, royalty was paid at the rate applicable for highest grade of ore though the mines produced four different grades. This had resulted in additional expenditure of ₹110.79 crore during the period 2012-17.

In exit conference (November 2017) OMC management stated that considering volume of operation in mechanised mines, it was not possible to stack ore in separate stacks. Their contention was not acceptable as the space constraint to stock iron ore in stacks was for want of FC. Further, OMC had not carried out any study to justify the necessity of storing iron ore in dump.

Extra payment of royalty for non-segregation of natural fines

2.23 Iron ore products of mines are calibrated iron ore (CLO), natural fines (screened fines) and processed fines (crushed fines). Natural fines are unprocessed material ore required to be stacked separately for disposal/sale. Iron ore removed from mines are subject to payment of royalty during the process of sales. Natural fines being unprocessed ore attract less royalty than other processed ore.

Audit observed that, OMC had not taken any steps to stack natural fines separately at DIOM. The same were mixed with processed / crushed fines. Similarly, OMC took (February 2016) belated action (after four years) for separation and stacking of natural / screened fines at GIOM. As a result, during the process of sale of iron ore, royalty on natural fines were paid at the rate of processed fines. As such, royalty at higher rate was paid on natural fines as the same were not separated by the screening process. As a result, OMC incurred avoidable expenditure of ₹138.63 crore towards royalty during the period 2012-17.

The Government stated (November 2017) that the grade of natural fines obtained at DIOM was below 60 *per cent* Fe. So, natural fines were required to be blended with high grade crushed ore fines. The Government further stated that the occurrence of natural fines in GIOM was almost nil.

[44] DIOM, GIOM and KIOM

The reply was not acceptable as no analysis of grade of natural fines at DIOM was made, as verified by audit. Moreover, the instruction of OMC to separately stack natural fines was not carried out at DIOM. Further, the occurrence of natural fines at GIOM was established and reported to government in May 2014.

Performance of Ore Handling / Beneficiation Plants

2.24 Odisha Mining Corporation Limited had one iron Ore Handling Plant (OHP) at DIOP for production of iron ore. It also has one COBP at SKCM for beneficiation[45] of low grade chrome ore to chrome concentrate. The performance of the plants is discussed below:

Undue benefit to private contractor on operation of Ore Handling Plant

2.25 Odisha Mining Corporation Limited has been operating OHP at DIOM departmentally since 1974 for processing of ROM to produce iron ores lumps and fines. OMC decided (June 2007) to discontinue operation of plant departmentally. Further, it was decided that the plant would be operated by a private contractor on Built Operate and Transfer (BOT) basis. The contractor would invest funds for upgradation of the plant. OMC appointed (February 2008) M/s Feed Bank Venture Ltd (FBVL) as appraiser for determining the modalities for operation of the plant. OMC, based on their report (September 2008), invited (December 2008) open tender. OMC signed (April 2010) a concession agreement with the L1 bidder for operation of the plant for ten years. The agreement envisaged operation of plant at rated capacity of 0.64 million tonne for first two years and two million tonne for the balance eight years. The contractor carried out modifications to the plant during the period 2010-12, but commenced operation only from October 2014. The delay in commencement was due to delay in obtaining FC over the land used for operation of OHP.

The performance of the plant during October 2014 to March 2017 was as follows:

Table 2.5: Performance of Ore Handling Plant

(Figures in lakh MT)

Period	Targeted production	Actual production	Excess(+)/Shortfall(-)
October 2014-March 2015	3.84	7.45	(+)3.61
2015-16	20	19.71	(-)0.29
2016-17	20	24.85	(+)4.85
Total	**43.84**	**52.01**	**(+)8.17**

(Source: Annual production and sales report of Ore Handling Plant)

As can be seen from the above, the contractor had achieved more than the targeted production since commencement of operation of OHP. Audit, however, observed deficiencies in the award of contract, execution of work

[45] Process that improves economic value of ore by removing commercially worthless minerals

and monitoring, resulting in undue benefit to the contractor as discussed below:

Unjustified revision of fixed and variable components led to undue benefit to contractor

2.25.1 The estimate prepared by FBVL initially envisaged fixed and variable elements cost of operation at 66 *per cent* and 34 *per cent* respectively. M/s FBVL had prepared the estimate on the basis that the contractor would infuse funds through loans and equity in the operation. The interest cost of the loans and return on equity would be the major cost of operation which are fixed in nature. As such higher component of fixed cost was envisaged.

Audit observed that OMC revised (October 2008) the fixed component to 30 *per cent* and variable component to 70 *per cent* and finalised the bid documents accordingly. OMC did not consider the estimate prepared by the FBVL even though the contractor was required to infuse loans and equity into the project. OMC also did not make any analysis for revising the proportion of element of cost of operation for the BOT project. Due to above revision, OMC became liable to pay more to the contractor as variable cost escalated every year from time to time while fixed component was not subject to escalation. The fixed cost was reduced by 36 *per cent* and variable cost increased by 36 *per cent*. Thus, OMC incurred ₹37.91 crore towards fixed cost instead of ₹83.41 crore (₹45.50 crore less paid). Similarly, OMC incurred ₹175.32 crore towards variable cost instead of ₹85.15 crore (₹90.17 crore excess paid) in the production of 52.01 lakh MT of iron ore during the period November 2014 to March 2017. OMC thereby extended undue benefit of ₹44.67 crore (₹90.17 – ₹45.50 crore) to the contractor.

The Government stated (November 2017) that there was no undue benefit to the contractor as they were paid as per the conditions of the contract. The reply was not acceptable as the Government had not provided proper justification for enhancing the variable component to 70 *per cent* and reducing the fixed cost to 30 *per cent.* Further, revision of proportion was not favourable for OMC.

Inclusion of contract clause on electricity charges favouring the contractor

2.25.2 The contract price for production of ore included cost of electricity at the rate of five *per cent* payable to the contractor. Further, the contract stipulated that OMC would provide electricity to the contractor for production of iron ore and the cost of electricity would be recovered from them.

Odisha Mining Corporation Limited paid ₹4.70 crore to the electricity supplier for consumption of electricity by the contractor during November 2014 to March 2017. The same amount had been recovered from the contractor. However, OMC had paid ₹10.98 crore towards five *per cent* of payable price to the contractor as per contract condition. As a result, OMC incurred extra expenditure towards electricity of ₹6.28 crore (₹10.98 crore – ₹4.70 crore). This was an undue benefit extended to the contractor.

The Government stated (November 2017) that agency had installed a number of DG sets for operation of plant and machineries during non-availability of electric power.

Audit verified that no operation of the Ore Handling Plant was carried out through DG sets during power failure.

Absence of clear provision in the contract resulted in undue benefit to the contractor

2.25.3 The contractor was expected to achieve 100 *per cent* of the rated capacity[46]. The agreement provided for different payment mechanism in case the contractor produced more than 150 *per cent* of the rated capacity. The price payable for production would be determined for such excess production based on mutual agreement. It was seen that the contractor produced 7.45 lakh MT (194 *per cent*) of ore during the first year of contract, against the targeted production of 3.84 lakh MT. Thus, there was excess production of 1.69 lakh MT over 150 *per cent* of the rated capacity. The contractor agreed to reduce the price only by ₹0.50 per MT and OMC settled the price at ₹385.04 per MT against the applicable rate of ₹385.54 per MT.

Audit observed that the contract price included ₹72.90 per MT as fixed component. The fixed costs were not subject to change on variation in production level. Thus, OMC should have included a suitable clause in the contract not to reimburse fixed cost to the contractor on production beyond 150 *per cent* of the rated capacity. Thus, non-availability of suitable provision in the contract resulted in undue benefit of ₹1.23 crore to the contractor.

The Government stated (November 2017) that increase in production required additional machinery and hence there was increase in fixed component. The reply was not acceptable as the contractor had not installed additional machineries.

Non-achievement of targeted production and loss of productivity at Chrome Ore Beneficiation Plant

2.26 Odisha Mining Corporation Limited has been operating the COBP since 1995 to beneficiate low grade chrome ore. As per the plant design, low grade chrome ore with 33 *per cent* chromium content would be beneficiated to get a chrome concentrate with 50 *per cent* chromium. The productivity of the plant had declined over the years. OMC awarded (November 2010) a contract for modification to existing COBP with completion period of 10 months. The work was, however, delayed for four and half years. The delay was due to delayed submission of detailed technical information/drawings of the existing plant by OMC to the contractor. The work, after several extensions, was finally completed in May 2015. OMC produced chrome concentrate up to April 2015 from the existing plant without modification. Subsequently, from May 2015, concentrate was produced from the modified plant. The table below indicates the target, achievement and recovery of chrome from the COBP during the period 2012-17.

[46] Installed capacity of a plant

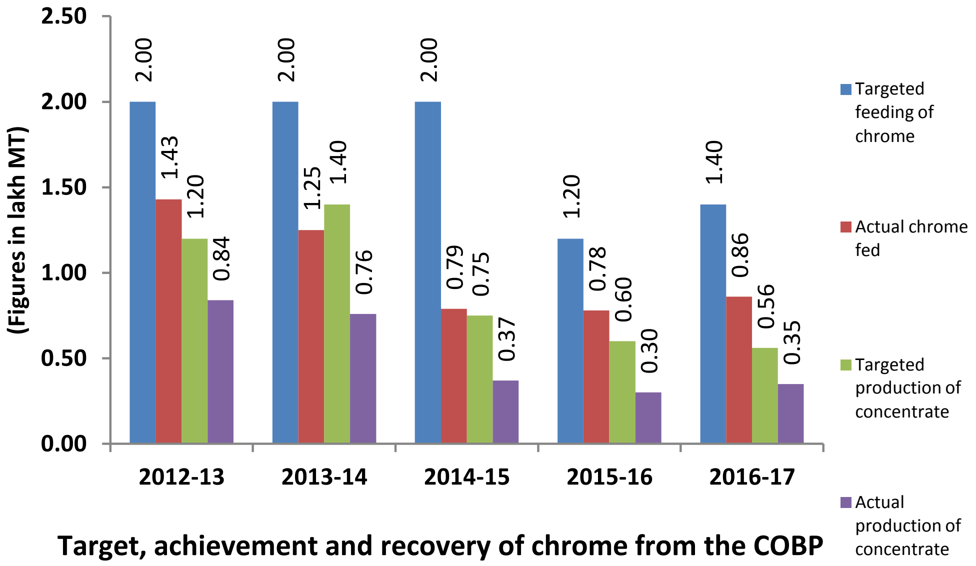
Table 2.6: Target, achievement and recovery of chrome ore from the COBP

(Figures in lakh MT)

Year	Targeted feeding of ore	Actual ore fed	Shortfall in feeding	Targeted production of concentrate	Actual production of concentrate	Shortfall in production of concentrate
2012-13	2.00	1.43	0.57	1.20	0.84	0.36
2013-14	2.00	1.25	0.75	1.40	0.76	0.64
2014 -15	2.00	0.79	1.21	0.75	0.37	0.38
2015-16	1.20	0.78	0.42	0.60	0.30	0.30
2016-17	1.40	0.86	0.54	0.56	0.35	0.21
Total	**8.60**	**5.11**	**3.49**	**4.51**	**2.62**	**1.89**

(Source: Annual physical verification report and performance report of COBP)

Chart 2.3: Target, achievement and recovery of chrome from the COBP



From the above, audit observed that:

- The actual feeding was 5.11 lakh MT to the plant against the target of feeding 8.60 lakh MT of chrome ore. This resulted in under utilisation of the plant. The plant remained under shutdown for 19578 hours[47] against availability of 35184 hours during the period 2012-17. OMC attributed higher rate of shut down to non-availability of ore, shortage of space, power failure and delay in replacement of spare parts.

  Audit observed that non-availability of ore was not a constraint, as chrome ore of 8.34 lakh MT was available during the period 2012-17. OMC could not achieve the targeted production resulting in shortfall of

[47] 12149 hours under planned shutdown and 7429 hours under forced shutdown

1.89 lakh MT of chrome concentrate. This resulted in loss of revenue of ₹201 crore during the period 2012-17.

The Government stated (November 2017) that non-achievement of targeted production of concentrate was mainly attributable to stoppage of plant by IBM for non-availability of tailing pond, power failure and handing over and taking over process of the plant to the contractor.

The reply was not acceptable as the above factors were controllable and no action was taken by OMC to mitigate those problems.

- The average chrome content of the concentrate ranged from 42.38 *per cent* to 49.49 *per cent* against plant design parameter of 50 *per cent*. Even after modification of COBP in May 2015 the average chrome content in 2015-16 and 2016-17 was 48.44 *per cent* and 49.49 *per cent* respectively. The sales price of concentrate depends on the chromium content. Hence, the shortfall in achievement of appropriate grade was a loss to OMC. This resulted in under realisation of revenue of ₹30.95 crore on production of 2.62 lakh MT of chrome concentrate during 2012-17. OMC had not analysed the reasons for the above and no remedial action had been taken thereon.

  The Government stated (November 2017) that after modification, the plant was running smoothly and achieved the production target. The reply was not acceptable as the targeted quantity and quality of chrome could not be produced after modification.

- The work of modification of the existing COBP contained a provision for restriction of tailing loss to 12 *per cent*. Thus, the recovery of chromium should be 88 *per cent* in the process of production of concentrate from chrome ore. As per records, the chrome content of the ore fed ranged from 31.5 *per cent* to 33.56 *per cent*. Out of the recovered chrome concentrate of 2.62 lakh MT, the chrome content percentage ranged from 42.38 to 49.49. Hence, an average tailing loss of 30 *per cent* was observed over the years. The tailing loss was 44 *per cent* and 39 *per cent* during 2015-16 and 2016-17 respectively even after modification of COBP. Thus, there was excess tailing loss of ₹66.35 crore. OMC had not taken any action to arrest the tailing loss and to recover such chromium for utilisation.

  The Government accepted and stated (November 2017) that the work of recovery and utilisation of tailing was under progress. It stated that around 25 *per cent* of the chromite values from the tailings would be recovered in near future.

Sales Performance

2.27 Odisha Mining Corporation Limited was selling ore available at different mines by inviting quarterly Price Setting Tenders (PST). OMC replaced PST with e-auction system for sale of chrome ore and iron ore in July 2012 and October 2014 respectively. In the e-auction process, OMC computed grade wise floor price of ores on which bids were invited. Allotment orders were issued to the buyers based on the highest price obtained. The sales policy of OMC described detailed procedures and modalities to be followed for the sale of ores to different category of buyers.

2.28 Fixation of target of sales of ore was made based on anticipated production of ores in the following year. Target of sales, actual production and shortfall in sales with reference to targets during the last five years ending March 2017 were as follows:

Table 2.7: Target and achievement of sales of iron ore and chrome ore

(Figures in lakh MT)

Year	Iron ore				Chrome ore			
	Actual production	***Sales target***	***Actual sales***	***Shortfall***	***Actual production***	***Sales target***	***Actual sales***	***Shortfall***
2012-13	24.70	69.20	27.10	42.10 *(60.84)*	6.72	11.25	4.76	6.49 *(57.69)*
2013-14	24.38	75.45	31.91	43.54 *(57.71)*	6.37	7.90	7.09	0.81 *(10.25)*
2014-15	31.70	49.85	34.97	14.88 *(29.85)*	7.32	5.55	6.15	(-) 0.60
2015-16	59.71	108.00	43.38	64.62 *(59.83)*	9.27	9.46	6.28	3.18 *(33.62)*
2016-17	61.64	90.70	71.62	19.08 *(21.04)*	11.71	12.90	8.49	4.41 *(34.19)*
Total	**202.13**	**393.20**	**208.98**	**184.22**	**41.39**	**47.06**	**32.77**	**14.29**

(Figures in bracket indicate percentage)
(Source: Annual budget of OMC for the last five years ending March 2017)

It would be seen from the above that:

- OMC could not achieve the targeted sales of iron ore in any of the year during 2012-17. The shortfall in achievement ranged from 21.04 *per cent* to 60.84 *per cent*. Similarly, in respect of chrome ore, OMC has achieved targeted sales only during 2014-15. The shortfall in achievement ranged from 10.25 *per cent* to 57.69 *per cent* in other years.

  The main reasons for non-achievement of targeted sale were due to inadequate infrastructure to evacuate produced ore and failure to dispose of old stock.

  The Government stated (November 2017) that targeted sales could not be achieved mainly due to depressed market conditions. Local problems, want of statutory clearances, inadequate evacuation facility also resulted in non-achievement of target. The reply was not acceptable as OMC could not dispose the stock mainly due to non-availability of adequate evacuation facilities in its major operating mines. The proposal of OMC to develop rail corridors and transport of produced ore to the proximity of rail network had also not materialised. Further, during the years 2012-17, the sales realisation was always more than the cost of production. This showed that even when market price of ore decreased there was scope for sale.

Royalty not recovered from the customers

2.29 As per approved sales policy of OMC, iron ore/chrome ore were sold to buyers at price inclusive of royalty. The parties had to quote price inclusive of the applicable rate of royalty prevalent at the time of offer. Royalty paid on sale of ore by OMC was required to be recovered from the buyers. OMC had been paying royalty to the GoO at the applicable rate on the date of dispatch of ore from the mines. Government of India enhanced applicable royalty on iron ore and chrome ore from 10 *per cent* to 15 *per cent* from 1 September 2014. Accordingly, OMC paid the royalty at enhanced rate to GoO from 1 September 2014.

Odisha Mining Corporation Limited had finalised (June 2014) tender for sale of CLO for the period July to September 2014. Similarly, tender for sale of iron ore fines and chrome ore for the period September to November 2014 was finalised in August 2014. OMC paid royalty at the rate of 15 *per cent* during September to November 2014. However, it recovered royalty from the buyers at the rate of 10 *per cent.* The contract executed by OMC had no provision for recovery of royalty on account of change in the rate of royalty by the GoI. This had resulted in non-recovery of royalty ₹37.28 crore from the buyers in the sale of iron ore and chrome ore during September to November 2014.

The Government stated (November 2017) that buyers were not concerned with revision of rate of royalty applicable for sale of minerals. The reply was not acceptable as sales policy of OMC envisaged recovery of royalty from customers as had been done in subsequent e-auctions.

Inventory Management

2.30 The inventory of OMC mainly comprised stock of ores. OMC had to take all necessary steps to liquidate the stock by synchronising production with evacuation mechanism. The production, sale, shortages and closing balance of different ores during the period 2012-17 were as follows:

Table 2.8: Iron ore

(Quantity in lakh MT)

Particulars	2012-13	2013-14	2014-15	2015-16	2016-17
Opening stock :					
Iron ore	68.74	68.29	60.20	56.82	74.46**
Production:					
Iron ore	24.70	24.38	31.70	59.71	63.66
Sales/consumption:					
Iron ore	27.10	31.91	34.97	43.38	71.62
Shortages/excess:					
Iron ore	0.52	-0.56	-0.11	-0.06	0.45
Closing stock:					
Iron ore	68.29*	60.20	56.82	73.09	66.95

(Source: Annual accounts and physical verification statements)

(* 1.43 lakh MT of iron ore received from left out stock of contractor)
(**1.37 lakh MT of iron ore received from left out stock of contractor)

Table 2.9: Chrome ore

(Quantity in lakh MT)

Particulars	2012-13	2013-14	2014-15	2015-16	2016-17
Opening stock :					
Chrome ore	2.56	3.92	2.71	4.12	6.66
Production:					
Chrome ore	6.80	6.37	7.32	9.27	12.06
Sales/consumption:					
Chrome ore	5.35	7.57	6.57	6.75	9.35
Shortages/excess:					
Chrome ore	-0.09	-0.002	0.66	0.02	0.01
Closing stock:					
Chrome ore	3.92	2.71	4.12	6.66	9.38

(Source: Annual accounts and physical verification statements)

It was noticed from the above that:

- The annual closing stock position of iron ore was more than production during five years ending March 2017. The accumulation of iron ore stock of 68.74 lakh MT as on 1 April 2012 was mainly due to non-synchronisation of production plan with sales plan. Excess production in violation of statutory provisions also resulted in accumulation of closing stock. This aspect was also reported vide Paragraph 3.3 in the Report of C&AG (PSUs), GoO for the year ended March 2013.

- Closing stock position during the year 2012-17 indicated that OMC could not liquidate the old stocks in time. The closing stock of ore mostly consisted of iron ore fines. Out of 66.95 lakh MT of closing stock of iron ore valuing ₹417.92 crore as on 31 March 2017, 50.87 lakh MT of stock was iron ore fines. OMC could not dispose the stock mainly due to non-availability of adequate evacuation facilities in its major operating mines. The proposal of OMC to develop rail corridors and transport of produced ore to the proximity of rail network had also not materialised. Non-disposal of ores resulted in blockage of funds as well as shortage of space for storage of ore after production.

  Government accepted (November 2017) the facts.

Iron ore fines lying at GIOM

Iron ore fines lying at DIOM

- Further, 3.71 lakh MT of ore valuing ₹15.15 crore in 14 inoperative mines could not be evacuated and lying idle for more than five years. Shortage of 0.76 lakh MT of ore valuing ₹2.72 crore was noticed in four inoperative mines during physical verification for the year 2016-17. Reasons for such shortage were not on the records.

  Government stated (November 2017) that ores lying in inoperative mines would be disposed of after obtaining the required statutory clearances. The reply was, however, silent on the shortage of ore.

Shortages of ores

2.31 As per the approved policy (October 2013), the closing stocks were to be measured taking into account 0.60 *per cent* towards storage and handling losses. In the event of losses beyond the prescribed norm, it was stipulated that the matter had to be placed before Board for their approval.

During the period 2012-17, shortage of 5.21 lakh MT (3.78 *per cent)* of ore (iron ore- 5.03 lakh MT and chrome ore- 0.18 lakh MT) valuing ₹146.01 crore was noticed in operating mines. The shortage was much beyond the norm. Audit observed that no proposal had been placed before the Board justifying the circumstances under which such losses occurred.

The Government stated (November 2017) that the shortages were not adjusted as the ore stacks were not completely exhausted. It stated that after completely exhausting a particular stack, the storage and handling losses shall be calculated and adjusted by following the approved norms. The reply was not acceptable as the shortage of 5.21 lakh MT pointed out by audit was established by annual physical verification of closing stock of OMC. Further, OMC had not followed the Board approved norm for accountal of shortage of ore in the books of account.

Non-booking of sub grade ore

2.32 As per circular issued (October 2009) by IBM, sub-grade iron ore are required to be stacked separately and to be booked under production.

As of March 2017, 23.39 lakh MT of sub-grade ore (Iron ore- 15.05 lakh MT and chrome ore- 8.34 lakh MT) valuing ₹714.87 crore were lying at different mines un-disposed. OMC had not taken any action to stack the sub-grade ores separately and account for them in the books of account violating the IBM norms.

The Government stated (November 2017) that sub-grade ores were incidental to production which did not have any active market value. Thus, they were not booked in production. The reply was not acceptable as booking of subgrade ore is mandatory as per IBM norms. Further, sub-grade ore had market price as per publication of IBM.

Project and Financial Management

2.33 Odisha Mining Corporation Limited was required to undertake new capital incentive projects in order to sustain good performance in the long run and to enhance its performance level. The profits earned from the business were, however, mainly invested in short term deposits. As discussed in **Paragraph 2.10**, OMC had not formulated any long term corporate plan to develop strategies for utilisation of its surplus fund in moderinsation and expansion of projects. In this regard, audit observed the following deficiencies:

Inadequate investment in infrastructure/projects

2.34 Odisha Mining Corporation Limited had surplus funds that ranged from ₹5,149.82 crore to ₹5,867.13 crore during the period 2012-17. The allocation of funds for investment in own projects ranged merely between ₹34.90 crore and ₹1,210.70 crore. The actual expenditure ranged between ₹2.16 crore and ₹118 crore during 2012-17. OMC identified 36 projects during 2012-17 for execution. The actual implementation was limited to eight projects including three projects on the core activities of the Company. The projects envisaged enhancement of production as well as evacuation of ore through mechanical means. The reason for execution of few projects was mainly due to non-finalisation of mode of execution of contracts, delayed action to obtain statutory clearances. Audit observations in this regard are discussed below:

Installation of new Ore Handling Plant at DIOP

2.34.1 Odisha Mining Corporation Limited decided (December 2006) to install an iron Ore Handling Plant at DIOP at an estimated cost of ₹318.94 crore. The project envisaged annual financial benefits of ₹355.97 crore to OMC through enhancement of iron ore production. GoO also approved (July 2008) the project to be funded from own source of OMC. OMC placed (May 2013) work order for construction of the project at a cost of ₹592.86 crore with scheduled completion period of 36 months. The work could not commence due to non-availability of FC as the project had to be executed in forest land.

Audit observed that OMC had not finalised FDP of the required land before awarding the work. Consequent to finalisation of the land requirement, OMC submitted (April 2014) the FDP which was not yet approved. This resulted in escalation of the project cost by ₹273.92 crore. The envisaged benefit of ₹355.97 crore per annum from the project could not accrue.

The Government stated (November 2017) that land requirement could be known after finalisation of the contract. The reply was not acceptable as land requirement should have been assessed before awarding the contract.

Setting up of infrastructural facility at GIOM

2.34.2 Odisha Mining Corporation Limited Board approved (March 2012) a project for installation of new crushing and screening plant, conveyor system at GIOM to enhance the production from 4.00 to 9.12 MTPA. GoO approved (November 2013) the project for implementation over a period of three years. The project envisaged investment of ₹500.40 crore and payback period of 7.2 months with annual earnings of ₹834 crore. The Company, however, awarded the consultancy work for the project to MECON in advance i.e., in March 2013. The same work could not progress and kept on hold by the Company as proposal for evacuation of produced ore was not envisaged in the work. The Board of Directors approved the project in November 2015 to be implemented at a revised cost of ₹1,348.47 crore. OMC awarded (April 2017) the consultancy work to MECON which *inter alia* included the provision for evacuation facility also.

Audit observed that delay in revision of scope of work resulted in delay in award of work. As the project had been delayed, the envisaged benefit of ₹834 crore per annum from the project could not accrue.

The Government stated (November 2017) that the scope of the work was subsequently modified to include evacuation facilities. The reply was not acceptable as the project was finalised by OMC in March 2012 and there was potential loss of ₹834 crore per annum to OMC.

Failure to implement Mechanical Evacuation System for disposal of ore

2.34.3 Odisha Mining Corporation Limited decided (December 2009) to install a Mechanical Evacuation System (MES) for evacuation of iron ore fines in GIOM and KIOM. MES was to be installed by private steel and mineral industries at their cost. Audit observed that the work could not be started due to non-availability of FC on the proposed land. Subsequently, OMC decided (February 2015) to terminate the proposal at GIOM as construction of MES by private industries would give rise to legal complications. The legal complications were anticipated as the land lease belonged to OMC. In case of KIOM also the proposal was terminated (November 2014) as the project was not feasible. OMC decided (February 2015) to install the systems at both the mines departmentally. The work for the same was yet to commence.

Audit observed that the decision to allow industries for installing MES for evacuation of iron ore was not a well thought plan. OMC had not conducted any technical feasibility and evaluation of the project. This had delayed the proposal for installation of MES in the mines resulting in accumulation of stock affecting sales. In both the mines there was blockade of stock of 34.01 lakh MT of iron ore fines valued at ₹165.06 crore.

The Government stated (November 2017) that OMC decided (February 2015) not to proceed with the proposal due to GoO notification (September 2014). The notification restricted OMC to sale of iron ore to parties other than Long

Term Linkage (LTL)[48] buyers. The reply was not acceptable as the notification came into effect much after the agreement was signed for MES (August 2011). There was sufficient stock of fines to accommodate the LTL buyers.

Investment in Joint Ventures and Associates

2.35 Odisha Mining Corporation Limited invested ₹408.81 crore towards equity/preference shares in 12 JVs[49], subsidiary and associate companies as on March 2017. The year-wise investments were as follows:

Table 2.10: Year-wise investment in joint venture and associates

Year	Amount invested (in crore)
Up to 2012-13	147.76
2013-14	230.96
2014-15	10.00
2016-17	20.09
Total	**408.81**

(Source: Annual Accounts of Odisha Mining Corporation Limited)

Audit observed that none of the JV projects had been completed so far (October 2017). The main reasons were delay in finalisation of project development agreements, failure to obtain forest clearance and inadequate monitoring by JV partners. As a result, OMC could not derive the envisaged benefit from these projects. In this regard, following observations are made:

Coal projects

2.35.1 Odisha Mining Corporation Limited invested (up to 2012-13) an amount of ₹3 crore as equity participation in three JVs for operation of coal mines. Audit had commented on the irregularities/deficiencies in respect of two out of three JVs in previous Audit Reports[50]. In respect of the 3rd JV project[51], Ministry of Coal (MoC) allotted (August 2006) the block in favour of OMC and APMDCL[52]. The JV partners would explore coal for utilisation in the thermal plants in Odisha and Andhra Pradesh. OMC had invested ₹1.12 crore in equity and incurred a preliminary expenditure of ₹9.64 crore towards formation of the JV company. Audit observed that the coal mine operation could not commence due to delay in preparation of DPR, survey of land and delay in finalisation of mining plan. As a result, MoC de-allocated (September 2014) the coal block. Consequently, the entire expenditure of ₹9.64 crore

[48] LTL buyers are Steel and Mines based industries who have signed MoU with GoO to buy ore from OMC

[49] Joint Ventures: Rio Tinto Orissa Mining Private Limited, Odisha Thermal Power Corporation Limited, Nuagaon Coal Company Limited, Kalinga Coal Mining Private Limited, Neelachal Ispat Nigam Limited, Keonjhar Infrastructure Development Company Limited, Angul Sukinda Railway Limited, Haridaspur Paradip Railway Company Limited;
Associates: Langigarh Scheduled Area Development Fund, South West Odisha Bauxite Mining Private Limited, East Coast Bauxite Mining Company Private Limited, Manadakini B Coal Corporation Limited
Subsidiary: Odisha Mineral Exploration Corporation Limited

[50] Paragraph 3.1 in the Report of C&AG (PSUs), GoO for the year ended March 2012 and Paragraph 3.4 in the Report of C&AG (PSUs), GoO for the year ended March 2013

[51] NuagaonTelisahi Coal Block

[52] Andhra Pradesh Mineral Development Corporation Limited

became infructuous and OMC could not derive envisaged benefits from the project.

Power Project

2.35.2 Odisha Mining Corporation Limited and Odisha Hydro Power Corporation jointly promoted (January 2007) a JV Company namely Odisha Thermal Power Corporation Limited (OTPCL). The JV Company was formed for setting up a thermal power plant of 3,200 MW capacity for supply of power to the State of Odisha. OMC invested ₹134.20 crore towards equity as of March 2017. The project was to be completed within a period of 48 months from April 2006. The project was delayed due to delay in acquisition of private land and non-finalisation of coal mines for the power plant. Delay in implementation had resulted in cost overrun of ₹2043.83 crore. The investment of surplus funds of OMC of ₹134.20 crore in the project did not yield any return.

The Government accepted (November 2017) the facts.

Corporate Social Responsibility

2.36 Corporate Social Responsibility (CSR) is a company's commitment to operate in an economically, socially and environmentally sustainable manner. As per Section 135 of the Companies Act 2013, OMC was required to spend at least two *per cent* of the average net profits of the three immediately preceding financial years on CSR.

With the enactment of Companies Act 2013, the BoD had approved (March 2014) a revised CSR policy of OMC. The policy envisaged spending annually minimum two *per cent* and maximum five *per cent* of the Average Net Profit (ANP) in the preceding three years. CSR activities of OMC for the period 2010-11 to 2013-14 were reported vide Paragraph 4.8 of Audit Report No.2 (PSUs), GoO for the year ended March 2015. CSR activities for the year 2014-15 to 2016-17 are discussed below:

The ANP and CSR expenditure of OMC during the last three years ended 31 March 2017 were as follows:

Table 2.11: The average net profit and CSR expenditure

(₹ in crore)

Year	ANP	2 *per cent* of ANP	Amount spent on CSR	Percentage of actual expenditure to ANP
2014-15	1571.33	31.43	16.88	1.07
2015-16	1440.17	28.80	44.51	3.09
2016-17	1308.34	26.17	29.19	2.23
Total:	**4319.84**	**86.40**	**90.58**	**2.10**

(Source: Annual accounts of Odisha Mining Corporation Limited)

Audit observed that OMC had spent ₹ 90.58 crore on CSR which was 2.10 *per cent* of the ANP. However, during 2014-15 expenditure on CSR was only 1.07 *per cent* of ANP.

As per CSR Rules, 2014 expenditure on sustainable urban development and urban public transport system do not qualify as CSR expenditure. Contrary to this, OMC contributed ₹5 crore in 2014-15 for development of land and construction of road in Puri town under Nabakalebar projects. OMC also contributed (2016-17) ₹2.10 crore for LED display systems in Puri town during Ratha Yatra festival.

The Government stated (November 2017) that such type of expenditures have been approved by the Board of the Company. It further stated that these expenditure were broadly covered under Clause (VII) of notification issued (February 2014) by GoI. The reply was not acceptable as such type of expenditure were specifically excluded from CSR activities by GoI in June 2014.

Monitoring and Internal Control

2.37 An effective monitoring mechanism is a pre-requisite for ensuring physical/financial progress of the company. Internal control helps the management to draw reasonable assurance that its objectives are being achieved in an efficient and effective manner. Audit observed following deficiencies in monitoring and internal control system in OMC:

- The scope of internal audit should cover all the core activities of the organisation. Internal audit in OMC was conducted by a firm of Chartered Accountants. The reports submitted by the internal auditors were reviewed by the Audit Committee from time to time. Audit observed that the scope of internal audit did not include scrutiny of settlement of advances and outstanding liabilities. OMC, in the annual accounts of 2016-17, had written back liabilities of ₹71.34 crore and written off advances amounting to ₹39.92 crore. OMC had not made any reconciliation before the write back and write off.

  The Government stated (November 2017) that the scope of internal audit covered checking of unadjusted advances and outstanding liabilities. The reply was not acceptable as OMC had appointed separate auditors to reconcile the advance and outstanding positions.

- Procedural manuals are necessary to carry out the activities in a systematic and authorised manner. OMC had not formulated any manual relating to its core activities. Such manuals include contract/production manual, sales and marketing manual, cost and budget manual and internal audit manual. In the absence of such manuals, the activities of OMC were carried out on the basis of annual policies, instructions and circulars issued from time to time. As a result, the procedures followed for carrying out various financial and non-financial activities were not systematic. It was also not authorised by any approved procedure.

  The Government accepted and stated (November 2017) that necessary steps were taken to prepare different manuals as suggested by audit.

- Odisha Mining Corporation Limited did not have a system of identification and disposal of slow moving/non-moving stores and spares. It was seen in audit that OMC had made a provision of ₹8.19 crore in the annual accounts of 2016-17 for slow moving/non-moving stores. The provision was made without ascertaining their further requirement for future use.

  The Government stated (November 2017) that provision and write off action were taken considering the age of the stores. The reply was not acceptable as no action was taken to identify the slow/non-moving stores for their use/disposal.

Conclusion

Odisha Mining Corporation Limited had not prepared corporate plan as required under Corporate Governance Manual of Government of Odisha. Out of 34 mines leased to Odisha Mining Corporation Limited, 26 mines were inoperative. The mines remained inoperative due to non-completion of exploration activities and delay in obtaining statutory clearances. The production and sale of ores from the existing working mines was restricted due to want of statutory clearances, inadequate infrastructure for evacuation of ores. The existing Ore Handling Plants were under-utilised with higher cost of production. Odisha Mining Corporation Limited could not complete any of the ongoing projects during 2012-17. Odisha Mining Corporation Limited had not formulated any procedural manuals to carry out the business activities in a systematic and authorised manner.

Recommendations

- **Odisha Mining Corporation Limited may consider preparation of long term corporate plan as required under Corporate Governance Manual of Government of Odisha;**
- **Odisha Mining Corporation Limited should speed up the process of obtaining various statutory clearances to operate the existing non-operating mines;**
- **Odisha Mining Corporation Limited should utilise the existing operating mines optimally to enhance production and profitability;**
- **Odisha Mining Corporation Limited should prioritise completion of ongoing projects in order to sustain good performance in the long run; and**
- **Odisha Mining Corporation Limited may consider to formulate various operating manuals for carrying out its business activities.**