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# STANDING COMMITTEE ON COAL AND STEEL (2020-2021)

## SEVENTEENTH LOK SABHA

## MINISTRY OF STEEL

## DEVELOPMENT OF LEASED OUT IRON ORE MINES AND OPTIMUM CAPACITY UTILIZATION

## TWENTIETH REPORT

LOK SABHA SECRETARIAT

NEW DELHI

MARCH, 2021/PHALGUNA 1942(Saka)

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## MINISTRY OF STEEL

# DEVELOPMENT OF LEASED OUT IRON ORE MINES AND OPTIMUM CAPACITY UTILIZATION

**Presented to Lok Sabha on 16.03.2021**

**Laid in Rajya Sabha on 16.03.2021**


**LOK SABHA SECRETARIAT**
**NEW DELHI**
**MARCH, 2021/PHALGUNA 1942(Saka)**

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**Chairperson - Prof. Chintamani Malviya**

**Lok Sabha**

2. Shri Idris Ali
3. Shri A. Arunmozhithevan
4. Smt. Jyoti Dhurve
5. Shri Nagesh Godam
6. Shri Shailesh Kumar (Bulo Mandal)
7. Dr. Banshilal Mahato
8. Shri Kamalbhan Singh Marabi
9. Shri Ajay Nishad
10. Smt. Riti Pathak
11. Smt. Ranjeet Ranjan
12. Dr. Ravindra Kumar Ray
13. Shri Chandulal Sahu
14. *Shri Tamradhwaj Sahu
15. Shri Tathagata Satpathy
16. Shri Janardan Singh 'Sigriwal'
17. Shri Pashupati Nath Singh
18. Shri Rama Kishore Singh
19. Shri Sunil Kumar Singh
20. Shri Sushil Kumar Singh
21. Shri Krupal Balaji Tumane

**Rajya Sabha**

22. Shri Ranjib Biswal
23. Prof. Manoj Kumar Jha
24. Shri Ranvijay Singh Judev
25. Shri Ram Vichar Netam
26. Shri Samir Oraon
27. Shri Dhiraj Prasad Sahu
28. Shri Achyutananda Samanta
29. Shri Ram Shakal
30. Shri Sanjay Singh
31. #Shri Vijay Pal Singh Tomar

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*Ceased to be a Member of the Committee w.e.f. 17.12.2018

# Nominated w.e.f. 02.01.2019

## COMPOSITION OF THE STANDING COMMITTEE ON COAL AND STEEL(2019-2020)

**Chairperson - Shri Rakesh Singh**

**Lok Sabha**

2. Shri Balubhau Dhanorkar alias Suresh Narayan
3. Shri Vijay Kumar Hansdak
4. Shri Kunar Hembram
5. Shri Raghurama Krishnaraju Kanumuru
6. Shri C. Lalrosanga
7. Shri S. Muniswamy
8. Shri Ajay Nishad
9. Shri Basanta Kumar Panda
10. Smt. Riti Pathak
11. Shri Komati Reddy Venkat Reddy
12. Shri Chunni Lal Sahu
13. Shri Arun Sao
14. Dr. Beesetti Venkata Satyavathi
15. Shri Sushil Kumar Singh
16. Shri Pashupati Nath Singh
17. Shri Sunil Kumar Singh
18. Dr. Alok Kumar Suman
19. Dr. Thirumaavalavan Thol
20. Shri Shyam Singh Yadav
21. Shri Tokheho Yepthomi

**Rajya Sabha**

22. Dr. Vikas Mahatme
23. Shri Mukut Mithi@
24. Shri Prashanta Nanda
25. Shri Ram Vichar Netam
26. Shri Samir Oraon
27. Shri Dhiraj Prasad Sahu
28. Shri Prabhakar Reddy Vemireddy
29. Shri B. Lingaiah Yadav*
30. Shri Anil Desai#
31. Shri Venkataramana Rao Mopidevi^

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*Nominated as a Member to this Committee w.e.f. 3rd December, 2019
# Nominated as a Member to this Committee w.e.f. 21st December, 2019
@ Retired w.e.f. 23.06.2020
^ Nominated as a Member to this Committee w.e.f. 23rd July, 2020

## COMPOSITION OF THE STANDING COMMITTEE ON COAL AND STEEL(2020-2021)

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6. Shri Saumitra Khan
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12. Dr. Lorho S. Pfoze
13. Shri S.R. Parthiban
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28. Shri Dhiraj Prasad Sahu
29. Shri Shibu Soren
30. Shri Prabhakar Reddy Vemireddy
31. Shri B. Lingaiah Yadav

## SECRETARIAT

| | | | |
|---|---|---|---|
| 1. | Shri Pawan Kumar | - | Joint Secretary |
| 2. | Shri Arvind Sharma | - | Director |
| 3. | Smt. Geeta Parmar | - | Additional Director |
| 4. | Smt. Vandana Pathania Guleria | - | Under Secretary |

## INTRODUCTION

I, the Chairperson, Standing Committee on Coal and Steel having been authorized by the Committee to present the Report on their behalf, present this Twentieth Report (Seventeenth Lok Sabha) on the subject "Development of Leased Out Iron Ore Mines and Optimum Capacity Utilization" relating to the Ministry of Steel.

2. The Standing Committee on Coal and Steel (2018-2019) during 16th Lok Sabha had selected the subject for detailed examination and report to the Parliament. The Committee took oral evidence of the representatives of the Ministry of Steel and its PSUs, Ministry of Mines and Ministry of Environment, Forest & Climate Change on 02.01.2019. The subject was reselected and the Standing Committee on Coal and Steel (2019-2020) took further oral evidence of the representatives of Ministry of Steel on 14.08.2020. Due to paucity of time, the Report on the subject could not be finalized and presented. However, the Standing Committee on Coal and Steel (2020-2021) decided to carry forward the unfinished work of the predecessor Committees. Based on the oral and written testimony submitted, draft report on the subject was prepared and the Report was considered and adopted at the sitting of the Committee held on 15.03.2021.

3. The Committee wish to express their sincere thanks to the predecessor Committees for the significant contribution made by them in examination of the subject.

4. The Committee wish to express their thanks to the officials of the Ministry of Steel and Steel PSUs, Ministry of Mines and Ministry of Environment, Forest & Climate Change for furnishing material/information in connection with examination of the subject.

5. The Committee place on record their profound appreciation for the valuable assistance rendered to them by the officials of the Lok Sabha Secretariat attached to the Committee.

6. For facility of reference and convenience, the observations and recommendations of the Committee have been printed in bold letters in Part-II of the Report.

**NEW DELHI;**
**15 March, 2021**
**24 Phalguna, 1942(Saka)**

**RAKESH SINGH**
**Chairperson**
**Standing Committee on Coal and Steel**

# REPORT

## PART-I

## CHAPTER-I

## INTRODUCTORY

Minerals are valuable natural resources which constitute the vital raw materials for many basic industries. Wide availability of the minerals in the form of abundant rich reserves is very conducive for the growth and development of the mining sector in India, which is an important segment of the Indian economy. Iron ore is an important and the most essential raw material for iron and steel industry. It is at the heart of the mining activities undertaken in our country. Iron Ore reserves are mostly found in the form of Haematite and Magnetite. India is amongst the leading producers of iron ore in the world with the total resources of over 33.276 billion tonne of Haematite ($Fe_2O_3$) and Magnetite ($Fe_3O_4$).

1.2 The details with regard to the total Haematite and Magnetite Reserves in the world are given as under:

**(in Million Tonnes)**

| Country | Reserve (Hematite & Magnetite) |
|---|---|
| Australia | 24,000 |
| Brazil | 12,000 |
| China | 7,200 |
| **India** | **5,475** |
| Canada | 2,300 |
| Iran | 1,500 |

1.3 As regards the total iron ore resources in India, the details as on 1.4.2015 are given as under: -

**(In billion tonne)**

| Mineral Type | * Reserves | @ Remaining Resources | Total Resources |
|---|---|---|---|
| Hematite | 5.422 | 17.065 | 22.487 |
| Magnetite | 0.053 | 10.736 | 10.789 |
| Total Iron Ore | 5.475 | 27.801 | 33.276 |

* **Reserves** are economically mineable resources and
@ **Remaining resources** are those resources, which are yet to be proved economically mineable.

It may be seen from the above that the total reserves/resources of haematite as on 1.4.2015 have been estimated at 22,487 million tonnes of which 5,422 million tonnes (24%) are under 'Reserves' category and the balance 17,065 million tonnes (76%) are under 'Remaining Resources' category.

1.4 The details with regard to State-wise reserves of Iron Ore (Haematite) as on 01.04.2015 and Production of iron ore during 2019-20 are as under:

**(in Million Tonnes)**

| States | Reserve | Production |
|---|---|---|
| Andhra Pradesh | 29.77 | 0.828 |
| Chhattisgarh | 1387.44 | 34.722 |
| Goa | 358.24 | 0 |
| Jharkhand | 439.37 | 26.88 |
| Karnataka | 550.24 | 31.40 |
| Madhya Pradesh | 62.06 | 3.30 |
| Maharashtra | 17.24 | -- |
| Odisha | 2572.22 | 146.77 |
| Rajasthan | 4.658 | 1.011 |
| Telangana | 0.51 | 0 |
| **Total (All India)** | **5421.75** | **244.911** |

1.5 Among the States, Odisha recorded the highest production of 113.05 million tonnes, i.e., about 54.76% of the country's total production in 2018-19. Chhattisgarh was at the second place with a production of 34.94 million tonnes, i.e., about 16.92% of the total production followed by Karnataka with a production of 29.79 million tonnes, i.e., about 14.43% and Jharkhand with 23.43 million tonnes, i.e. about 11.35% of the country's production. The remaining 5.23 million

tonnes, i.e., 2.54% production was reported from Andhra Pradesh, Goa, Madhya Pradesh, Maharashtra, Rajasthan and Telangana.

1.6 The Committee have also been informed that about 79% haematite ore deposits are found in the Eastern Sector (Assam, Bihar, Chhattisgarh, Jharkhand, Odisha & Uttar Pradesh) while about 93% magnetite ore deposits occur in Southern Sector (Andhra Pradesh, Goa, Karnataka, Kerala, & Tamil Nadu). Karnataka alone contributes 72% of magnetite deposits in the country. Of these, haematite is considered to be superior because of its higher grade.

1.7 As envisaged in the National Steel Policy, 2017 the country's crude steel capacity is targeted to reach 300 million tonnes by 2030-31 for which the requirement of iron ore will increase substantially and would be 437 million tonnes at the end of the same period. Thus, there is a need to conserve our iron ore resources and at the same time concentrate on prospecting and further deep seated exploration.

1.8 The Committee have further been informed about the location-based classification by Geological Survey of India (GSI) on distribution of Iron ore in India, the details of which are as under:

I. **Zone A**: Chiriya, Noamundi, Kiriburu, Meghataburu, Thakurani, Bolani, Gua, Malangtoli, Gandhamardhan, Daitri

II. **Zone B:** Bailadila, Dalli, Rajhara, Rowghat, Mahamaya, Aridongri, Surajgar

III. **Zone C:** Donimalai, Ramandurg, Kumaraswamy, NEB Range, Ettinahatti, Tunti, Belegal

IV. **Zone D**: North Goa, South Goa, Redi

V. **Zone E:** Kudremukh, Bababudan, Kudachari

1.9 The Ministry of Steel has stated that mining is a time consuming exercise and also needs timely clearance of the Environment, Forest and

consent to operate. Brief details and sequence of development of Iron Ore Mines are described as under:

(a) **Planning phase** - This phase incorporates following three stages:-

(i) Conceptual Study

(ii) Pre-feasibility Study

(iii) Feasibility Study

(b) **Implementation phase** - This phase incorporates following two stages:-

(i) Design and construction

(ii) Commissioning, and

(c) **Production phase** - During this phase mineral is mined and processed. Production Planning is an ongoing activity throughout the life of the mine. Plans are made which apply to different time spans -

(i) Operational or short-term production planning is necessary for the function of an operating mine.

(ii) Long-term production planning is usually done for feasibility or budget studies. It supplements pit design and reserve estimation work and is an important element in the decision-making process.

## CHAPTER-II

## IRON ORE : IMPORT & EXPORT

### Demand and Supply of Iron Ore

The Committee desired to know about the figures for production, export, import and domestic consumption of iron ore in the country during the last 3 years and 2020-2021 (upto August, 2020). In reply, the details have been given as under:-

**(in million tonnes)**

| Financial Year | Production | Export | Import | Domestic Consumption |
|---|---|---|---|---|
| **2017- 18** | 200.96 | 24.20 | 8.70 | 164 |
| **2018- 19** | 207.67 | 16.15 | 12.80 | 170 |
| **2019- 20** | 242.73 | 36.52 | 1.24 | 177 |
| **2020-21 (upto Aug)** | 61.66 | 25.11 | 0.02 | NA |

### Import and Export of Iron Ore Products

2.2 Indian Bureau of Mines (IBM) maintains the records of import and export of iron ore products and the same is published in the Indian Minerals Yearbook. The details of export and import of iron ore products are as follows:

| Ore & products | 2016-17 | | 2017-18 | | 2018-19 (P) | |
|---|---|---|---|---|---|---|
| | Quantity (000 t) | Value (Rs thousand) | Quantity (000 t) | Value (Rs thousand) | Quantity (000 t) | Value (Rs thousand) |
| **IMPORT** | | | | | | |
| **Iron ore Total** | **4607** | **21615220** | **8707** | **42293970** | **12808** | **59136712** |
| **Iron ore conc: Non-agglomerated** | 2352 | 10404621 | 2210 | 12707090 | 533 | 3533499 |
| **Iron ore Fines** | 867 | 3825369 | 3798 | 11958940 | 8436 | 28976777 |
| **Iron ore lumps** | 993 | 4824936 | 2123 | 12138902 | 3196 | 19735798 |

| | | | | | | |
|---|---|---|---|---|---|---|
| **Iron ore Pellets** | 391 | 2520826 | 571 | 5434369 | 640 | 6832112 |
| **Iron ore pyrites** | 3 | 39468 | 5 | 54669 | 4 | 58526 |
| **EXPORT** | | | | | | |
| **Iron ore Total** | **30731** | **102929256** | **24203** | **94901382** | **16150** | **92626091** |
| **Iron ore conc: Non-agglomerated** | 1106 | 2846475 | 276 | 924664 | 49 | 167775 |
| **Iron ore Fines** | 18541 | 47421384 | 13100 | 32582235 | 5905 | 16112897 |
| **Iron ore lumps** | 2268 | 6792561 | 1516 | 4402466 | 831 | 3138921 |
| **Iron ore Pellets** | 8815 | 45847775 | 9311 | 56966622 | 9364 | 73177865 |
| **Iron ore pyrites** | 1 | 21061 | 1 | 25395 | 1 | 28634 |

## A. IMPORT OF IRON ORE

2.3 The Committee drew the attention of the Ministry of Steel to the fact that though the domestic consumption of iron ore in the country is less than the total production during the last three years, import of iron ore has increased during these years. In reply, the Ministry has clarified that iron ore is a freely importable item and no import licence is required for its import. Any decision to import is therefore a purely commercial decision for a steel, sponge iron or pellet manufacturer. Iron ore being a bulk item, the logistics cost at times equals the basic price of the ore. Therefore, for consumers who are situated closer to the sea ports, it may be economical to import the ore, especially when the international ore prices are depressed.

2.4 The Ministry then supplemented that in the past, JSW had resorted to import of iron ore for its Vijaynagar plant in Karnataka as it was able to get low grade ore at a discounted price from Australia, which it beneficiated to higher grade. JSW Steel remained India's largest iron ore importer during 2016-17, 2017-18 and 2018-19 and imported 3.55 MT, 5.1 MT and 8.99 MT of Iron Ore, respectively. Other importers like Varrsana Ispat, Essar Steel, Goa Sponge & Power, Kamachi Group, Jindal Saw, Kudremukh Iron Ore Co. which are located close to the Ports and far

away from iron ore producing regions, have imported iron ore in the range of 0.2 - 0.4 MT owing to lower landed cost of imported iron ore.

2.5 The Committee have further observed that during the years 2017-18 and 2018-19, about 8.70 MT and 12.80 MT iron ore, respectively was imported into the country. This was mainly due to lower prevailing international prices of low grade iron ore. However, during 2019-20 the import of iron ore reduced phenomenally and was a meagre 1.24 MT. The Logistic cost contributed nearly 15% of the cost of raw material.

2.6 While observing that for steel plants located near ports it is cheaper to import iron ore than transporting the same from mines in the country, the Committee wanted to know about the steps, if any, taken by the Government to decrease the logistics /freight/ transportation charges in order to reduce the import of iron ore. In reply, the Ministry has stated to have taken the following steps in order to decrease the logistics cost for raw materials:

> (i). Ministry of Steel being the nodal Ministry for mineral pipelines under the Petroleum & Minerals Pipelines Act (PMP Act), is working closely with public and private sector steel producers for expeditious processing of statutory approvals required for laying of slurry pipelines which may reduce the cost of transporting iron ore significantly.
>
> (ii). Ministry of Steel is also working closely with Inland Waterways Authority of India (IWAI) and the steel industry for helping to promote the use of inland waterways for transporting raw materials and finished steel. Operating cost of Inland waterway transportation is less than half of road transport. On 11$^{th}$ Aug 2020 a meeting was held in the Ministry of Steel with IWAI and the steel industry in this regard.
>
> (iii) Ministry of Steel has also been engaging *vide* letter dated January 2020 with Department of Revenue (DoR) for reduction of import duties on raw materials that are used by the Steel sector. The same was recommended in the Budget proposal sent to DoR in Jan 2019
>
> (iv). Ministry of Steel is continuously engaging with Ministry of Railways for laying of new railway lines, doubling/tripling of existing lines, reduction of freight class of iron ore from 165 to 145 similar to Coal, Coke and Limestone, removal of busy season surcharge, removal of premium on Kothavalasa–Kirandul (KK) line, removal of

route rationalization charges and inclusion of iron ore in Long Term Contract policy by railways etc. Additionally, Ministry of Steel has also requested M/o Railways *vide* DO letter dated 9th July 2020, for taking a policy decision for granting Right of Way (RoW) for laying of slurry pipelines along the Railway tracks.

## B. EXPORT OF IRON ORE

2.7 The Committee also desired to know about the measures taken by the Government to prevent the export of high grade iron ore. In reply, the Ministry has informed that besides imposing export duty of 30% on iron ore having Fe (iron) content above 58%, the Government has also ensured that the export of iron ore with Fe content above 64% is canalized through MMTC. NMDC Ltd. has been exporting high grade iron ore from Bailadila mine in Chhattisgarh to Japan and South Korea only through MMTC (MMTC being the canalizing agency for high grade iron ore export) under a long-term agreement (LTA) and these exports are undertaken based on the approval of Union Cabinet from time to time. NMDC Ltd.'s iron ore exports during the last 5 years are given as under:

**Qty. in Lakh Tonne**

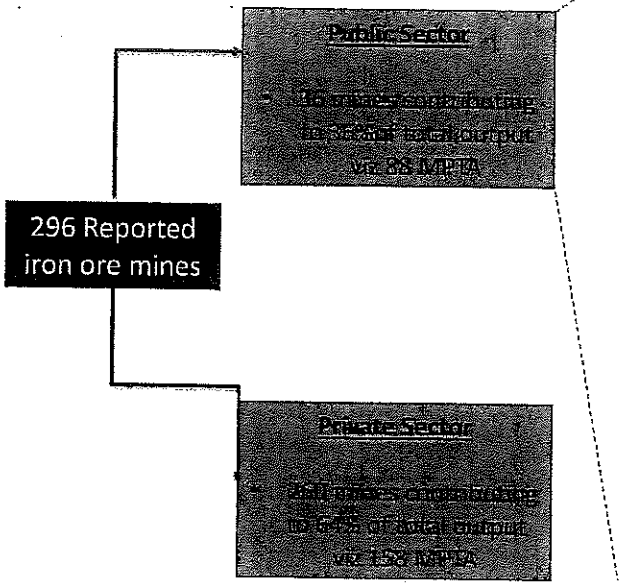
| Year | Japan | | | South Korea | Total | | |
|---|---|---|---|---|---|---|---|
| | Lump | Fine | Total | Fine | Lump | Fine | Total |
| **2015-16** | 1.67 | 5.03 | **6.70** | 4.56 | 1.67 | 9.59 | **11.26** |
| **2016-17** | 6.56 | 13.90 | **20.46** | 6.82 | 6.56 | 20.72 | **27.28** |
| **2017-18** | 5.18 | 14.66 | **19.84** | 6.13 | 5.18 | 20.79 | **25.97** |
| **2018-19** | 4.41 | 4.27 | **8.68** | 3.10 | 4.41 | 7.37 | **11.78** |
| **2019-20** | 9.59 | 8.82 | **18.41** | 5.99 | 9.59 | 14.81 | **24.40** |

## CHAPTER-III

## IRON ORE MINING

### Current Status

Current Status of Iron Ore Mining in the country is as under:




| State | Lessee Owner name | Number of Mines |
|---|---|---|
| Chhattisgarh | NMDC | 3 |
| | SAIL | 5 |
| Jharkhand | SAIL | 4 |
| Karnataka | MML | 3 |
| | NMDC | 2 |
| | KIOCL | 1 |
| Maharashtra | MSMCL | 1 |
| Odisha | OMC | 7 |
| | SAIL | 4 |
| | OMDC | 6 |
| Total | | 36 |

Out of the 36 PSU mines, 25 are with CPSEs under Ministry of Steel

3.2 The Committee have been informed that disruption in supply of 45-50 Million Tonnes iron ore was expected owing to expiry of 37 working merchant mines as on 31st March, 2020. However, in order to revive these mining leases, Section 8B has been added in the MMDR Act 2015 *vide* Ordinance dated 10 January, 2020, for extending all statutory clearances for a period of 2 years to the new lessees, in respect of Section 8A(6) mines which were expiring on 31st March, 2020. Ministry of Steel worked closely with Ministry of Mines for ensuring that the statutory approvals like Environment Clearance(EC) and Forest Clearance(FC) are vested in favour of the new lessees.

### Sale of Iron Ore

3.3 Further, in order to help the Steel CPSEs to get their mines renewed with certainty, an Amendment was made in 'Minerals (Mining by Government Company Rules) 2015' by Ministry of Mines wherein 'shall for reasons to be recorded' has been substituted in place of 'may for reasons

to be recorded' in Rule 3(2) and Rule 4(3) *vide* Gazette Notification No. GSR695(E) on 27.09.2019. Also, the Ministry of Steel on 12.09.2019 had submitted a proposal to Ministry of Mines for reducing the royalty on Iron ore fines from the existing 15% to 5% in order to incentivize beneficiation & palletisation as well as reduce the stockpile of low-grade fines dumped at mine heads.

3.4 It has further been informed that in order to help in clearing of old dumped sub grade material, the Ministry of Mines *vide* an order dated 16.09.2019 allowed SAIL to sell 25 percent of its total mineral production in the previous year subject to clearance from the respective State Governments. Further, in another order dated 16.09.2019, Ministry of Mines had also allowed SAIL to dispose of the old stock of 70 Million Tonnes of low-grade iron fines and ores (including slime) lying dumped across different captive Mines of SAIL, after getting necessary permission from the State Governments. This order was amended on 4th January, 2020 to include all grades of iron ore fines. Applications were accordingly submitted by SAIL to the respective State Governments for grant of permission for sale of dumped ore fines / tailings / slimes in the open market. Sale of dump fines / slimes is contingent upon permission from the State Government(s) as well as amendment of Environmental Clearances (EC) from Ministry of Environment, Forest and Climate Change (MOEFCC) & Consent to Establish (CTE) / Consent to Operate (CTO) by the State Authorities.

**Fresh Iron Ore**

3.5 When asked about the current status of approvals for selling of fresh iron ore production, the Ministry has furnished the State-wise information as under:-

**Jharkhand:** Approval of Government of Jharkhand for selling of fresh iron ore from SAIL iron ore Mines in Jharkhand is awaited.

**Chhattisgarh:** After obtaining necessary approvals for selling of fresh iron ore from SAIL Mines in Chhattisgarh, process of auctioning for sale of

fresh iron ore from Dalli and Rajhara Mines has started on 03.09.2020 and till 30.09.2020 a quantity of about 1.02 Lakhs Tonne of fresh iron ore has been successfully auctioned and booked.

**Odisha:** After obtaining necessary approvals for selling of fresh iron ore from SAIL Mines in Odisha, process of tendering for sale of fresh iron ore from Bolani and Barsua Mines have started and till 30.09.2020 a quantity of about 10.32 Lakhs Tonne of fresh iron ore has been successfully auctioned and out of which about a quantity of 9.54 Lakh Tonne has been booked.

**Dump Fines/Tailings**

3.6 As regards the sale of Dump fines/Tailings, State-wise information is given as under:-

**Jharkhand:** In order to expedite early approval, Chairman, SAIL requested the Hon'ble Chief Minister(CM), Jharkhand during a meeting on 03.03.2020. The proposal for grant of permission was then forwarded by Department of Mines & Geology to Office of Hon'ble CM, Jharkhand on 30.04.2020 for in-principle approval and placing the same before State Cabinet for approval. However, the proposal was returned to Department of Mines & Geology, Jharkhand on 24.06.2020 for certain clarifications/compliances. The Deputy Director (Mines), Govt. of Jharkhand *vide* letter dated 10.07.2020, informed DC, Chaibasa under intimation to SAIL that permission for sale of fresh iron ore fines and sub grade iron ore fines from Captive Mines of SAIL in open market shall be considered subject to compliance of the following provisions :

- Full payment of demands issued under Rule 5 of Mineral (Mining by Govt. Company) Rules, 2015 for the SAIL mining leases extended as per the provisions of Mineral (Mining by Govt. Company) Rules, 2015.
- Approval of Iron ore/Manganese ore mining leases of SAIL were granted for captive use and now SAIL is seeking permission to sale sub grade iron ore/fresh fines in the open market. In such situation and in this case, the permission will be considered only after clarification on Percentage of Sharing of Sale Proceeds.

Thereafter, Chairman, SAIL *vide* letter dated 28.07.2020 requested for the intervention of Chief Secretary, Jharkhand to consider SAIL's proposal

for grant of permission to sell fresh iron ore production and dump fines/slimes from Kiriburu, Meghahatuburu, Gua and Chiria Mines in the open market without imposing the aforesaid conditions. Chairman SAIL met Hon'ble Chief Minister and Chief Secretary, Jharkhand on 23.09.2020 and offered to depute a SAIL team to Ranchi for an early resolution of the pending issues collectively on priority. Written Requests in this regard were also made to Chief Secretary, Jharkhand and Hon'ble CM *vide* letters dated 25.09.2020 and 28.09.2020, respectively. On the request of SAIL, a meeting had been convened by Secretary (Mines & Geology), Jharkhand on 07.10.2020. Approval of Jharkhand Government is still awaited.

**Chhattisgarh:** Preliminary inspection of quality and quantity was carried out by Department of Mines & Geology, Government of Chhattisgarh (GOCG) officials on 07.02.2020. Consequent upon submission of the clarification/query of the IBM, Nagpur by Government of Chhattisgarh on 01.06.2020, IBM *vide* letter dated 17.08.2020 had given its recommendations to Government of Chhattisgarh to allow permission of sale of 0.7 MT of slimes to SAIL which are lying with in lease area of Rajhara Hill mining lease. Approval of Government of Chhattisgarh is awaited.

**Odisha:** In order to finalize the modalities for sale of sub-grade iron ore fines from the SAIL Mines in Odisha, joint survey of dumps/tailings at Barsua-Kalta-Taldih was conducted on 25.02.2020 and at Bolani Ore Mines from 25.2.2020-27.2.2020. Inspection Reports of dump fines at Bolani and Barsua-Taldih-Kalta were forwarded by respective Deputy Director of Mines (DDMs) to Director of Mines, Bhubaneswar on 17.03.2020 and 19.03.2020 respectively. In order to finalize the modalities and arrangement of sale of dump fines/slimes, including bringing the quantities into books of account, a meeting was chaired by Director of Mines, Government of Odisha on 19.05.2020 wherein issues concerning Stacks of Dump Fines/Tailings & its quality & quantity assessment, Analysis of samples drawn from the stacks and its methodology, Transit Permits for dispatch etc. were deliberated. Regional

Controller of Mines (RCOM), IBM stressed that SAIL will have to ensure modification and approval of Review of Mining Plan incorporating the joint verification reports and computed quantities of dump-fines/slimes before starting sale of dump fines/slimes. As directed, Mining Plan w.r.t. Bolani mine was modified by Centre for Engineering and Technology, Ranchi and submitted to IBM, Bhubaneswar on 14.07.2020.

However, in case of Barsua mine where Tailings Pond is located outside of the ML -130 lease, *vide* letter dated 09.06.2020 a request was made by SAIL to Director of Mines, Govt. of Odisha to allow selling of tailings from Barsua Mine without insisting on modification of approved Mining Plan of ML-130. Thereafter, DDM, Koira Circle *vide* letter dated 08.07.2020 informed Director of Mines, Odisha that quantities of the Dump Fines/Slimes computed during joint verification shall be entered straightway in the closing stock in Form A/A1 in the I3MS portal of the Barsua, Taldih and Kalta Mines of SAIL and requested to create option in the I3MS portal in respect of these Mines. Consequently DDM, Koira *vide* letter dated 24.09.2020 allowed dispatch of slimes from Tailing Pond of Barsua Mine for selling in open market subject to conditions. Dispatches of slimes from Barsua tailing pond will commence after grant of CTO by Odisha State Pollution Control Board (OSPCB). Similarly, dispatches of dump fine from Bolani will commence after approval of Government of Odisha and CTE and CTO by OSPCB.

3.7 Further, Mine-wise status of amendment in EC required for selling of dump iron ore fines/tailings fines from SAIL iron ore mines has been pro*vide*d as under:

**(a) Topailore lease of Gua Mine: -** For sale of dump iron ore from Topailore lease (0.6 MT) of Gua mine, post amendment of EC by MoEFCC on 19.05.2020, CTE and CTO have been granted by Jharkhand State Pollution Control Board (JSPCB) on 19.06.2020 and 28.07.2020, respectively. After release of forest land under Topailore lease and also approval for sale of dump ore by Jharkhand Government, process for sale will commence.

**(b) Kiriburu-Meghahatuburu Mines: -** Post amendment of EC for change in excavation & dispatch pattern of Kiriburu-Meghahatuburu Iron Ore Mining project [ML Area 2897.499 Ha] by MoEFCC on 30.07.2020, application for CTE was re-submitted on 28.08.2020 adjusting the fees submitted earlier. CTE was granted by JSPCB on 30.09.2020. Application for CTO was submitted to JSPCB on 15.10.2020.

**(c) Duargaiburu Lease of Gua Mine:-** The proposal for amendment of EC was appraised in the Expert Appraisal Committee (EAC) Meeting held during 23rd – 25th September, 2020. Minutes of the EAC meeting was uploaded on MoEFCC website on 07.10.2020. EAC has recommended the proposal for amendment in EC for excavation of iron ore fines from the fines dump at the rate of 3.1 MTPA for selling in open market keeping total production within the approved EC limit of 12.5 MTPA and to transport the mineral by SAIL's internal road to Gua public siding and through SAIL's internal road & public road up to Barajamda Railway Siding by the buyers. However, due the safety concerns, the fines dump shall not be excavated during the monsoon period as well as heavy rain days.

**(d) ML-130 Lease of Barsua-Taldih-Kalta Mines: -** Post amendment of EC, CTE has been granted by Odisha State Pollution Control Board (OSPCB) on 25.09.2020. Application for CTO has been submitted on 26.09.2020. OSPCB raised the queries w.r.t. compliance of CTE on 29.09.2020. The compliance of the queries was submitted to OSPCB on 09.10.2020 and site inspection was also done by Environmental Engineer, OSPCB on 09.10.2020 and thereafter inspection report was submitted by him online 13.10.2020. Grant of CTO is awaited.

**(e) 5.1 Sq. Mile Lease of Bolani Mine: -** Post amendment of EC for change in excavation & dispatch pattern of 5.1 Sq Mile lease of Bolani Iron Ore Mine by MoEFCC on 30.07.2020, modified application for CTE was made to OSPCB on 30.08.2020. SAIL has presented the case before OPSCB on 24.09.2020. Grant of CTE is awaited.

## CHAPTER-IV
## MAJOR ISSUES IN IRON ORE MINING

### A. STEEL AUTORITY OF INDIA LTD.

### I Pending Forest Clearances(FC) of SAIL's Iron Ore Mines

The information regarding pending forest clearance of SAIL's iron ore mines is as under:

**(i) Pending with MOEFCC**

**(a) Stage-II Forest Clearance (FC) for diversion of 595.075 Ha of forest land under Ajitaburu, Budhaburu, Dhobil &Sukri-Latur mining leases of Manoharpur Iron ore Mine (Chiria)**

- Except Manoharpur Iron ore mine (Chiria), all other iron ore mines of SAIL are going to be depleted during the period 2026 to 2045. In order to bridge the gap between the iron ore production capacity and its requirement, SAIL has a plan to expand Chiria mines from 7 MTPA to 45 MTPA in phased manner upto 2040 in six iron ore leases of Chiria
- Post approval of Management Plan for Sustainable Mining (MPSM) for Saranda Forest in June, 2018, Chiria leases are kept in no mining zone(except already broken up area in Dhobil lease) and further decision on grant of final FC for the same may be taken at later stage.
- Only 25% of the forest area under mining lease was allowed for mining while granting in-principle approval (Stage-I FC) in March, 2011.
- Forest Clearance (FC) proposals for grant of Stage-II FC (Final Approval) for diversion of 595.075 Ha of forest land covered under Ajitaburu, Budhaburu, Dhobil & Sukri-Latur mining leases of Chiria Mine are pending since July, 2015.
- Single largest iron ore resource available with SAIL (1573 MT) is in Chiria leases. Out of the available iron ore resources of about 3650 million tonnes with SAIL, about 43% is available at a single location *viz.* the Chiria leases which is not only critical for future expansion but will also take care of existing expansion in view of other depleting resources.
- Inclusion of Chiria mining leases, except Dhobil lease, in No Mining Zone of MPSM was objected by both MoS & Jharkhand Government since it has blocked about 1.5 billion tonne of iron ore resources of SAIL.
- *Vide* letter dtd 12.03.2019, Chairman, SAIL made a request for intervention of Secretary, MoEFCC to consider inclusion of already

broken up area of Chiria leases in the Mining Zone of the MPSM.

- The issue of Chiria mining leases in No Mining Zone of MPSM was further discussed in the meeting of Ministries of Steel, MoEFCC, Coal & Mines and CM Jharkhand on 26.08.2019 wherein MoEFCC has informed that a committee of ICFRE, ISM and IIT, KGP will be formed which will submit its report in time bound manner.
- As Jharkhand Government is not considering extension of lease period of Chiria leases on account of being part of No Mining Zone, Secretary Steel *vide* letter dtd 14.10.2019 requested Secretary MoEFCC to consider Chiria leases in Mining Zone.
- MoEFCC has constituted a Reassessment Committee on 30.10.2019 comprising the members of ICFRE, Forest Survey of India, MoEFCC, IIT(ISM) Dhanbad, IIT Kharagpur, Ministry of Mines, GoI, Ministry of Coal, GoI, Ministry of Steel, GoI and Government of Jharkhand to suggest modification /amendments in MPSM.
- In the meantime, 1st meeting of the Reassessment Committee for suggesting amendments/modification on MPSM was held on 16.01.2020. *Vide* letter dated 04.02.2020, ICFRE had circulated the draft ToR for reassessment study.
- Ministry of Steel shared the draft ToR with SAIL and asked to pro*vide* its comments on draft ToR. From the draft ToR it appeared that the Reassessment Committee is mandating a fresh study which will be time consuming. Therefore, while submission of its comments on draft ToR to Ministry of Steel, SAIL made a request that since the issue of sustainable mining in Saranda is under deliberations for more than five years, therefore, the present study should be completed expeditiously in the time bound manner preferably with in period of six months.
- ***Handing over of site of 595.075 Ha forest land under four mining leases of Chiria, after grant of Stage-II Forest Clearance (FC), is a prerequisite for development of large mechanized mine at Chiria.***

**(ii) Pending with Jharkhand Government**

**(a) Stage-II Forest Clearance (FC) Proposal for diversion of 361.295 Ha of forest land under Duargaiburu lease of Gua**

- Stage-I FC for diversion of 361.295 ha of forest land was granted in March, 2014, grant of Stage-II FC is still awaited.
- In last one and half year, FC proposal has been returned twice by MoEFCC stating shortcoming in the proposal.
- In order to comply with the shortcoming in the FC proposal intimated by MoEFCC *vide* letter dated 15.11.2019, DFOs of the respective Forest Divisions, in total six including Saranda, had

submitted the final report of the identified Compensatory Afforestation (CA) sites to the office of DFO (Saranda) and last report in this regard was received from DFO, Saraikela on 18.02.2020.

- Chairman, SAIL *vide* letter dated 24.02.2020, requested the intervention of Chief Secretary, Jharkhand for early forwarding of Gua FC proposal for approval of MoEFCC.
- After compiling all the reports, DFO, Saranda *vide* letter dated 24.02.2020 forwarded the Compliance Report to the Office of Chief Conservator of Forests (CCF), Chaibasa on 24.02.2020, which in turn forwarded the Report to RCCF, Jamshedpur on 28.02.2020.
- In order to expedite pending FC proposals of Duargaiburu lease of Gua Mine and south-Central blocks of Kiriburu-Meghahatuburu Mines, Chairman, SAIL *vide* letter dated 24.02.2020 requested the intervention of Chief Secretary , Jharkhand.
- Office of Regional Chief Conservator Of Forests (RCCF), Jamshedpur forwarded the Compliance Report to Principal Chief Conservator of Forests (PCCF) (Nodal) on 02.03.2020.
- Further, the issue of delay in grant of FC of Duargaiburu lease of Gua Mine was discussed during Review Meeting of Project Monitoring Group of Department of Industry and Internal Trade (DPIIT), Ministry of Commerce and Industry, GoI held under Chairmanship of Chief Secretary, Jharkhand at Ranchi on 05.03.2020 wherein it was agreed to forward the Compliance Report on Gua FC by Jharkhand Government to MoEFCC by end of March 2020.
- In the meanwhile, on 17.03.2020, Office of PCCF, Nodal informed SAIL that the estimates of the Compensatory Afforestation (CA) Schemes submitted by DFOs of respective divisions needs to be modified taking GST provisions, mandays provisions, etc.
- In view of the outcome of PMG meeting dated 05.03,2020, ED(RPE &O), SAIL, *vide* letter dated 19.03.2020 made a request to PCCF(Nodal), Jharkhand to forward the compliance report to MoEFCC at the earliest.
- Chairman, SAIL *vide* letter dated 28.04.2020 requested Chief Secretary, Jharkhand for early forwarding of the compliance reports of pending FC proposals to MoEFCC with a recommendation to grant Stage-II FC .
- Further, to expedite long pending FC proposal, Secretary, Steel also *vide* his letter dated 04.05.2020 requested for the personal intervention of Chief Secretary, Jharkhand.
- As desired by Office of PCCF (Nodal), the CA schemes were revised and revised differential CA amount of Rs. 3.26 Crore was paid on 27.05.2020. The same has been intimated to PCCF

(Nodal), Govt. of Jharkhand on 06.06.2020 through DFO, Saranda and RCCF, Jamshedpur.

- Chief Secretary, Jharkhand *vide* letter dated 10.06.2020 informed Secretary, Steel that PCCF(Nodal), Jharkhand has been directed to expeditiously dispose of the matter related to Stage-II Forest clearances in respect of Duargaiburu lease of Gua mine.
- It is learnt that PCCF (Nodal) Office has now informed DFO, Saranda that the CA amount deposited on 27.05.2020 did not include the costs related to Boundary Pillaring Work. Therefore, same needs to be calculated and deposited by SAIL for further process of proposal. Matter is being expedited with DFO, Saranda.
- ***Handing over of site of 361.295 Ha forest land under Duargaiburu mining lease after grant of Stage-II Forest Clearance (FC), is a prerequisite for capacity expansion of Gua mine to 10 MTPA.***

**(b) Stage-II Forest Clearance (FC) Proposal for diversion of 247.50 Ha of forest land under South-Central blocks of Kiriburu-Meghahatuburu Mine**

- Stage-I FC for diversion of 247.50 ha was granted in October, 2010, the grant of Stage-II FC is still awaited.
- In March, 2019 MoEFCC had observed that part of identified Compensatory Afforestation (CA) area was not suitable and directed to identify fresh CA sites.
- As per the advice of the Office of PCCF (Nodal), GoJ, DFO, Khunti and DFO, Gumla have made necessary rectification in CA Schemes and forwarded the revised CA schemes to DFO, Saranda on 20.02.2020 for further necessary action at his end.
- Chairman, SAIL *vide* letter dated 24.02.2020, requested the intervention of Chief Secretary, Jharkhand for early forwarding of South-Central Blocks FC proposal for approval of MoEFCC.
- Divisional Forest Officer (DFO), Saranda *vide* letter dated 28.02.2020 asked SAIL to deposit Rs. 6.21 crore as differential CA amount through challan on online portal.
- Online link for payment of Rs.6.21 Crore has been generated on 04.03.2020 and payment was made on 05.03.2020.
- Chairman, SAIL *vide* letter dated 28.04.2020 requested Chief Secretary, Jharkhand for early forwarding of the compliance reports of pending FC proposals to MoEFCC with a recommendation to grant Stage-II FC .
- Further, to expedite long pending FC proposal, Secretary, Steel also *vide* his letter dated 04.05.2020 requested for the personal intervention of Chief Secretary, Jharkhand.

- Chief Secretary, Jharkhand *vide* letter dated 10.06.2020 informed Secretary, Steel that PCCF(Nodal), Jharkhand has been directed to expeditiously dispose of the matter related to Stage-II Forest clearances in respect South-Central Blocks of Kiriburu-Meghahatuburu mines.
- Consequently, *vide* letter dated 12.06.2020, PCCF(Nodal) forwarded the FC proposal of South-Central Blocks of Kiriburu-Meghahatuburu mines to Principal Secretary, (FE&CC), Jharkhand for onward transmission of the FC proposal to MoEFCC for grant of Stage-II FC.
- ***Handing over of site of 247.50 Ha forest land under South-Central Blocks of Kiriburu-Meghahatuburu mines, after grant of Stage-II Forest Clearance (FC), is a prerequisite for development of new mining pits at Kiriburu-Meghahatuburu mines.***

**(iii) Pending with Government of Odisha**

**(a) Stage-II Forest Clearance (FC) proposals for diversion of 465.62 Ha forest land under 6.9 Sq. Mile lease of Bolani Mine**

- Stage-I of Forest Clearance was granted by the MoEFCC on 24.02.1999.
- Due to non-availability of non-forest land for Compensatory Afforestation (CA), the Stage – I FC was amended by MoEFCC on 14.07.2009 and further on 24.07.2017.
- In compliance to the modified condition for identification of Degraded Forest Land (DFL) could complete in November, 2018.
- Stage-I FC compliance Report was approved by PCCF (Nodal), Bhubaneswar on 01.07.2019.
- On 15.07.2019, Govt. of Odisha forwarded the compliance report to MoEFCC.
- *Vide* letter dated 04.10.2019, MoEFCC has sought further clarifications w.r.t CA land and area broken up prior to 1980 from Government of Odisha.
- Subsequently, Special Secretary (F, E & CC), Govt. of Odisha *vide* letter dated 19.10.2019 directed PCCF (WL) & CWLW; RCCF, RKL/DFO, Keonjhar; Collector, Keonjhar & SAIL to take necessary action.
- Further, PCCF (Nodal), Govt. of Odisha *vide* letter dated 22.10.2019 directed DFO, Keonjhar to furnish the information through RCCF, Rourkela.
- Identification of additional CA land over 322 ha is being pursued with DFO, Keonjhar and DFO, Rourkela.

- *Vide* letter dated 07.12.2019, PCCF (Nodal), Govt. of Odisha was requested to forward the information to MoEFCC for grant of Stage-II FC for 465.62 ha.
- To expedite, identification of additional CA land, a meeting was convened by PCCF (HoFF), Odisha on 09.12.2019.
- ***Grant of Stage-II FC for diversion of 465.62 Ha forest land will facilitate evacuation of dump fines and tailing from the lease.***

**(iv) Pending with Regional Office of MoEFCC, RANCHI**

**(a) Stage-II Forest Clearance for diversion of 30.44 Ha of forest land under Jhillingburu-II lease of Gua Mine**

- Stage-I FC was granted on 29.01.2013.
- Stage-I FC compliance report was forwarded by Govt. of Jharkhand to MoEFCC Regional Office, Ranchi on 17.07.2017.
- MoEFCC, RO, Ranchi *vide* letter dated 09.01.2018 requested MoEFCC, for necessary direction in light of MPSM of Saranda Forest.
- MoEFCC, RO, Ranchi *vide* letter dated 27.02.2019 requested PCCF (Nodal), Jharkhand to pro*vide* certain information in view of the approval of MPSM.
- On 02.04.2019, SAIL submitted the Point-wise information to DFO, Saranda.
- DFO, Saranda *vide* letter dated 27.04.2019 has further sought clarifications from SAIL which were replied on 22.05.2019.
- DFO, Saranda *vide* letter dated 29.06.2019 informed that the CA area (i.e. 42 ha) identified earlier in Chaibasa Forest Division for this proposal has already been planted by the State Forest Dept. and hence directed to identify fresh degraded forest land covering 42 ha for CA and further submit the Shape/Kml file and Geo-referenced coordinates.
- Geo-referenced map, topo sheet map & kml/shape files were prepared and submitted to DFO, Porahat, which was forwarded to the office of DFO, Saranda. *Vide* letter dated 20.03.2020, DFO, Saranda was requested to forward the compliance of the query raised by MoEFCC, RO, Ranchi.
- ***Grant of Stage-II FC will facilitate production of 20,820 tonnes per year of manganese from the lease.***

**(b) Grant of Stage-I FC for diversion of 14.88 Ha forest Land outside of SAIL leases for Long Distance Belt Conveyor (LDBC) for evacuation of iron ore from Chiria Mine**

- For evacuation of iron ore from Chiria mine, Forest Clarence proposal for diversion of 14.88 Ha of forest land was submitted online on 31.01.2017.
- *Vide* letter dated 11.01.2018, Dy. Secretary (F,E&CC), Jharkhand forwarded the proposal to Addl. PCCF(Central), MoEFCC, Ranchi for further necessary action.
- In light of Carrying Capacity Study, MoEFCC, RO, Ranchi *vide* letter dated 19.02.2018 requested MoEFCC, New Delhi for necessary direction for grant of Stage-I FC for 14.88 Ha.
- To expedite the direction of MoEFCC, Delhi to MoEFCC, RO, Ranchi to process the LDBC FC proposal, D(T) with Addl Charge of D(RM&L) *vide* letter dtd 15.02.2019 made a request for intervention of DGF&SS.
- Further, the same was reiterated by Chairman, SAIL in his letter dtd 12.03.2019 addressed to Secretary, MoEFCC.
- Regional Empowered Committee meeting held on 11.03.2019 and subsequently, MoEFCC, Regional Office (RO), Ranchi *vide* letter dated 14.03.2019 made certain observations. In compliance to the observation of MoEFCC, Regional Office, Ranchi, had identified 35 Ha of Degraded Forest Land for Compensatory Afforestation.
- Addl. DG (C), RO, MoEFCC, Ranchi inspected the site on 29.03.2019 and *vide* letter dated 02.04.2019, requested Addl. DG of Forest (FC), MoEFCC, New Delhi to convey the outcome of the review of MPSM, so that decision can be taken for diversion of 14.88 Ha proposal.
- The observations made by MoEFCC, RO, Ranchi were complied with and the desired information was submitted to DFO, Saranda *vide* letter dated 12.08.2019 for onward transmission.
- ***Grant of Stage-I FC will facilitate development of large mechanised mine at Chiria.***

**II. Pending Environment Clearances (EC) of SAIL's iron ore mines with MoEFCC**

4.2 The information regarding pending environmental clearance of SAIL's iron ore mines is as under:

**(a) Environment Clearance (EC) for Kalwar-Nagur iron ore mining lease of Bhilai Steel Plant, Chhattisgarh**

- The issue of grant of EC for development of 1MTPA iron ore mine at Kalwar-Nagur lease of Bhilai Steel Plant remains unresolved as MoEFCC was of the view that SAIL has to deposit the NPV of the entire forest land in the lease amounting to Rs.96 crore before grant of EC. Whereas, SAIL, being a Government Company had challenged the matter regarding payment of NPV for entire forest

land in a mining lease under Section 2(iii) of Forest Conservation Act before Jharkhand and Chhattisgarh High Courts.

- Hon'ble Chhattisgarh High Court pronounced the judgment on 05.09.2019 wherein it did not decide the legal issues raised by the SAIL in the writ petition and directed SAIL to take a decision about retaining the extent of lease area for future use and deposit the NPV accordingly. Therefore, to protect lease rights for the entire lease area and also to protect the legal basis for non-payment of NPV for entire forest land in a mining lease, SAIL decided to deposit the NPV under protest and challenge the High Court order dated 05.09.2019 before the Hon'ble Supreme Court on 25.09.2019.
- Consequently, NPV payment of entire forest land (938.059 ha) under Kalwar-Nagur mining lease amounting to Rs.96.06 Crore in CAMPA account was made by SAIL on 04.10.2019 and further *vide* letter dated 04.11.2019 and 30.11.2019 ED (BSP) made requests to Joint Secretary (NCL), MoEFCC for issuance of formal order for grant of EC in terms of direction issued by Hon'ble Chhattisgarh High Court.
- Director (RM&L), SAIL personally met Joint Secretary (NCL) on 02.01.2020 and again on 03.02.2020 wherein he was assured for early grant of EC. Further, to expedite grant of EC, D(RM&L), *vide* letter dated 08.05.2020 made a request to Joint Secretary, MoEFCC. Chairman, SAIL also *vide* letter dated 11.05.2020 requested for the intervention of Secretary (MoEFCC) for early issuance of EC for Kalwar-Nagur lease.
- With reference to the letter dated, 30.11.2019, Director, MoEFCC (NCM) *vide* letter dated 11.05.2020 suggested ED (BSP), SAIL to seek forest clearance for balance un-diverted forest land under the lease before processing of EC proposals for the entire area of lease by MoEFCC.
- The matter was examined and it was found that Director, MoEFCC suggestion to seek diversion of entire forest land under the mining lease before grant of EC is not reasonable. Therefore, *vide* letter dated 15.05.2020, Director, MoEFCC was requested to issue the formal order expeditiously for grant of EC for Kalwar-Nagur in terms of Hon'ble Chhattisgarh High Court direction dated 05.09.2019 with a mention that mining activities will be confined within diverted forest area of 17 ha under lease area of 938.059 ha.
- Further, on the matter, a meeting on video conference was held under the Chairmanship of Additional Secretary, MoEFCC on 03.06.2020 wherein, MoEFCC officials reiterated their stand on submission of the Stage-1 FC for remaining forestland in the mining lease area for processing of Environmental Clearance for the entire area of 938.059 Ha as per the approved mining plan or

construe the mining lease area to 17 Ha and agreed to obtain the EC for the 17 Ha lease area.

- SAIL officials tried to explain MoEFCC officials to follow the direction passed by the Hon'ble Chhattisgarh High Court *vide* judgment dated 05.09.2019 wherein in the part (v) of concluding Para 48 Hon'ble Court has directed that once the requirement of the mining area is restricted or limited as to '17 hectares' of the forest land, the Respondents concerned shall record it and 'EC' for the said area shall be granted to the Petitioner within one month from the relevant date, in view of the satisfaction of the full NPV for that area to be treated as the total forest land diverted for non-forest purpose; for the time being."
- Later JS, MoEFCC concluded the meeting and asked for some more time to further deliberate the matter among Ministry's officials.
- ***Grant of EC will facilitate development of 1 MTPA iron ore mine at Kalwar-Nagur lease.***

**(b) Environment Clearance (EC) for Pandridalli & Rajhara Pahar iron ore mining lease of BSP, Chhattisgarh**

- EC Proposal was rejected by Expert Appraisal Committee (EAC) of MoEFCC in Feb'18 as SAIL had not obtained EC at the time of renewal in 2003 (despite the fact that for the same proposal at the time of grant of TOR, no objection was raised by EAC in 2015).
- As BSP/SAIL, had not violated the provision of EIA Notification 1994/EIA Notification 2006, therefore, *vide* letter dtd 03.04.2018 and 07.04.2018 requests were made to reconsider the EC proposal.
- In view of SAIL's request, MoEFCC directed their Regional Office, to inspect and submit a report regarding expansion, if any.
- In Oct'18, RO Nagpur confirmed that no modernization has been done by SAIL and that SAIL has regularly obtained renewal of CTO.
- Without considering the RO Report, *vide* letter dtd 06.02.2019, MoEFCC informed Director, Chhattisgarh Environment Conservation Board (CECB) and Director (Mines & Geology), Chhattisgarh to take necessary action on SAIL as per law.
- In order to avoid any coercive action by State Government on the notice issued by MoEFCC, a writ petition was filed in Hon'ble Chhattisgarh High Court on 07.03.2019.
- On 17.05.2019, Hon'ble Court directed the respondents to file their reply on SAIL's writ petition.
- Matter is pending in Hon'ble Chhattisgarh High Court.

**(c) Environment Clearance (EC) for mining of 61,362 TPA manganese ore from Jhillingburu-I lease of Gua Mines, Jharkhand**

- Terms of Reference (ToR) for conducting Environment Impact assessment (EIA) study was granted by MoEFCC on 04.03.2015.
- After concluding public hearing, final EIA/EMP report was submitted online on 04.01.2017 & accepted on 10.02.2017 for examination by EAC.
- MoEFCC *vide* letter dtd 03.04.17 informed that EC proposal will be considered after approval of Carrying Capacity study report by Competent Authority.
- However, MoEFCC on 13.11.2017 intimated that proposal was not accepted due to violation case and directed to apply as per notification dated 14.03.2017. Accordingly, TOR proposal was re-submitted on 02.12.2017.
- MoEFCC (Impact Assessment Division) *vide* Office Memorandum dated 16.03.18 directed to submit the proposal afresh within 30 days.
- Proposal was again re-submitted to MoEFCC online on 04.04.2018 for issuance of TOR.
- The EC proposal was considered by Expert Appraisal Committee for the projects involving violations on 29.08.2018. As directed by the Committee, an affidavit in compliance with the Ministry's OM dated 30.05.2018 mainly pertaining to comply with all the statutory requirements and judgement of Hon'ble Supreme Court dated 02.08.17 in the matter of Common Cause *versus* Union of India and Others. was submitted to MoEFCC on 31.08.2018. Additional ToR is awaited.
- Now MoEFCC is insisting upon submission of certified production details from State Govt, status of validity of lease, status of Forest Clearance (FC), etc.

4.3 In this regard, Ministry of Steel has further informed the Committee about the pending issues with the State Government regarding extension of lease period of iron ore leases including sub-judice lease by Jharkhand Govt. as per the provisions of Mineral (Mining by Government Company) Rules, 2015; extension of lease period of ML-227 Lease of Barsua-Kalta mine by Odisha Government as per the provisions of Mineral (Mining by Government Company) Rules, 2015; and Grant of Prospecting License (PL) for Thakurani Block-A.

4.4 Initially, the grant of Stage-II FC for SAIL mines operating in Saranda forest in Jharkhand got delayed on account of finalisation of Management Plan for Sustainable Mining (MPSM) which could finally be approved by MoEFCC in June,2018 after more than one and half years of deliberations. As per approved MPSM, Gua and Kiriburu-Meghahatuburu mines are part of Mining Zone and FC may be granted after further deliberation at State Govt. level. However, Chiria leases of SAIL which holds about 54% of SAIL's iron ore resource base are part of No Mining Zone and shall be kept in abeyance till the MoEFCC takes a final view on the environmental sustainability of mining in the region after further examination. Delay in development of Chiria mine is deterrent for ongoing and future expansion plan for SAIL. At present, 100% requirement of iron ore is being met through captive mines. Requests have been made by SAIL to the respective State Governments at various levels for mutual settlement of all the outstanding issues and they are being continuously followed-up.

**B. NMDC LTD.**

**Donimalai Iron Ore Mine Lease**

4.5 Mining Lease of the Donimalai Iron Ore Mines (DIOM) was initially granted to NMDC Ltd. on 04.11.1968 and was valid upto 03.11.2018. At the time of grant in 1968 Donimalai Mines had a reserve of 98 MT iron ore, whereas its present reserve are 132 MT. During this period NMDC Ltd. has produced 155 MT iron ore and augmented 189 MT of reserve in the mines. In recent years, the Company invested about 2300 crore in the Donimalai Complex. Future investment of about Rs. 400 crore for construction of additional new Screening and Beneficiation Plant with a capacity of 10 MTPA and Rs. 400 Crore for creating additional Loading Plant capacity is under pipeline. NMDC Ltd. has also installed a Pellet Plant, at a cost of about Rs. 570 crore for utilization of slimes and lean grade Iron Ore. The Committee have observed that the State Government of Karnataka on 02.11.2018 had accorded approval for extension of Mining Lease of Donimalai Iron Ore Mine for a period of 20 years with an

additional condition of "Payment of 80% of the average sale value published by IBM from time to time to Government of Karnataka". NMDC Ltd. challenged the imposition of the said additional condition in the Hon'ble High Court of Karnataka and won the case against the State Government. However, Karnataka State Government later withdrew the approval accorded for extension of Donimalai Iron Ore Mine and put the Mining Block for e-auction on 17.08.2019. This action of the State Government was challenged by NMDC Ltd. on 19.08.2019 in the Mines Tribunal, Ministry of Mines, Government of India. On 14.08.2020, NMDC Ltd. submitted an application to the Mines Tribunal for early hearing of its revision petition and final order in this respect. A meeting was held in Bangalore on 28th August 2020 between CM Karnataka and Mines Ministry, Government of India. It was decided during the meeting to allow NMDC Ltd. to allow resumption of mining operations at Donimalai upon payment of 37.5% Royalty. Meanwhile, a Committee shall be constituted by Ministry of Mines, Government of India, for working out the details of the amendments required in Mining Rules. Government of Karnataka *vide* order dated 01.12.2020 permitted NMDC Ltd. to commence mining operations with immediate effect in Donimalai Mines as an interim measure. Subsequently, *vide* order dated 17.12.2020 Government of Karnataka communicated that the Director, Mines & Geology, Bangalore shall execute conditional mining lease w.e.f. 03.11.2018 in favour of M/s NMDC Limited for a period of 4 years or till the implementation of High Level Committee report, whichever is earlier and further extension of lease will be considered by the State Government upon implementation of the report of the High Level Committee. As the Government of Karnataka had granted lease extension for four years and NMDC Ltd. was insisting on lease period of 20 years, a representation been made to Government of Karnataka on 23.12.2020. Now, in a recent development, it has been apprised that mining operations in Donimalai Iron Ore Mines (MI No. 2306) which had stopped w.e.f. 04.11.2018 have resumed since 18.02.2021.

**Mining Operations of NMDC Ltd.**

4.6 The Committee have observed that over the years, phenomenal changes have been observed in mining operations, in terms of scale of operations, market development, mining methods, increased exploration and deeper mining leading to increase in the area for waste dump, subgrade ore and need for additional infrastructure and other allied activities. With time, threshold values of the minerals have also decreased (e.g. Iron ore from 58% to 45%) and advancement in processing technologies and increased mineral prices have enhanced mineral economics and consequently larger mineable production. With the increase in depth of mine, as more reserve is proved through extensive exploration, there is a quantum increase in the ultimate pit area in lateral direction. This has resulted in significant increase in the quantum of waste mining, the originally granted mining lease area remains constant and, in many cases, gets reduced because of surrender of part of the Mining Lease area in later years of the Mining Lease on various grounds. This has resulted in a situation wherein there is scope of increasing the production from the Mine, however, same is not doable for want of additional area adjacent to the existing Mining Lease.

4.7 Further, NMDC Ltd. by doing exploration at greater depth in all its operating mines has proven additional reserves of 1405.75 MT of Iron Ore. In all the operating Iron Ore Mines of NMDC Ltd., there will be generation of total 1043.21 MT of waste material till the end of the Mine. Present waste dump yards in all the mines are nearly filled and can't accommodate more waste in the upcoming years. Approx. 1154 Ha. of additional land is required for waste dumping, in existing mines. Without the additional land for waste dumping, production of Iron Ore can't be increased from the existing Mines. However, there is stated to be no explicit legal provision for getting additional land in Forest Areas for waste dumping purpose.

4.8 It has been observed that in the MMDR (Amendment) Act, 2016 the expression "**leased area**" was defined as follows:-

> *"Section 3 (a) "leased area" means the area specified in the mining lease within which mining operations can be undertaken and includes the non-mineralised area required and approved for the activities falling under the definition of mine as referred to in clause (i);"*

The present definition of "leased area" is very comprehensive and envisages to expand the scope of the mining lease and ancillary activities like dumping of rejects, include the adjacent areas, areas belonging to a mine on which any process ancillary to getting, dressing, preparation for sale of minerals etc. is being carried on.

4.9 The statement of objects and reasons of the MMDR (Amendment) Bill, 2016 states as follows:-

> *"1. The Mines and Minerals (Development and Regulation) Act, 1957 was enacted to govern the development and regulation of mines and minerals.*
>
> *2. Sub-section (6) of section 12A of the said Act provides that the transfer of mineral concessions shall be allowed only for concessions which are granted through auction. The Central Government has received representations from industry associations stating that the said sub-section has caused difficulties which do not allow merger and acquisition of a company having captive leases. The Central Government has also received representations seeking clarification regarding areas for dumping of mining wastes in view of the observations made by the Supreme Court of India in Writ Petition (Civil) No. 562 of 2009 and Writ Petition (Civil) No. 435 of 2012.*
>
> *3. It is, therefore, felt necessary to provide for transfer of captive mining leases granted otherwise than through auction in order to facilitate legitimate business transactions.* ***It was also felt necessary to define "leased area" in order to expand the scope of lease area by including therein dumping of mineral rejects.***
>
> *4. The Bill seeks to achieve the above object."*

4.10 However, in few cases when State Governments were approached requesting grant of additional area / supplementary mining lease adjacent to the existing mining leases, then the following clauses in the MMDR Act were brought out by the State Governments:

A. Section 5 (2) of the MMDR Act - 1957 prescribes that "No mining lease shall be granted by the State Government unless it is satisfied that-

a. ***there is evidence to show the existence of mineral contents in the area*** for which the application for a mining lease has been made in accordance with such parameters as may be prescribed for this purpose by the Central Government;
b. ***there is a mining plan duly approved*** by the Central Government or by the State Government, in respect of such category of mines as may be specified by the Central Government, for the development of mineral deposits in the area concerned.

Thus, State Government in absence of existence of mineral contents in the area cannot grant the Mining Lease.

B. In certain cases, wherein, Mining Lease was earlier taken specifically for infrastructural purpose, execution / registration of the Mining Lease could not be done in absence of an approved mining plan, as Indian Bureau of Mines, Nagpur expressed its inability to approve any Mining Plan because no scheme of Mining had been proposed.

For example, case of Deposit-10 Float Ore of NMDC Ltd. in the District – Dantewada, C.G. is latest example of this. In the absence of Mining Lease execution of Deposit-10 Float Ore, NMDC Ltd. filed the application for change in nomenclature of the purpose meant for diverted Forest Land of Deposit-10 Float Ore area and approval of M/o EF&CC, Government of India for "Change in nomenclature of already diverted forest Land of Deposit-10 Float Ore Area from renewal of Mining Lease to infrastructural facilities" had been taken. This has happened in the year 2019 after the insertion of the term "leased area" in the MMDR Act – 1957.

C. Realizing that State Governments are not willing to grant any area adjacent to the existing mining leases in absence of mineralization in that area, NMDC Ltd. tried to get areas sighting presence of Mineralization in those areas. These proposals were also declined by the State Government saying that these areas deserved to be auctioned.

D. Meaning of the word "**approved**" as used in the definition of "leased area" is also not clear.

4.11 From the above deliberations, it is clear that the purpose of defining the term "Leased Area" has not been achieved in absence of clarity / guidelines on the matter and absence of provisions in the MMDR Act-1957 for expansion of the area of the existing Mining Leases.

4.12 Thus, Ministry of Mines may issue guidelines to the State Governments on "leased area" or prescribe new provisions in the MMDR Act – 1957 for facilitating expansion of the area of the existing mining leases.

## CHAPTER-V

## OPTIMUM CAPACITY UTILIZATION

Efficient optimal use of natural resources is critical for their sustainability. Iron ore mining is carried out by opencast method through manual, semi-mechanised and mechanised operations. The method of iron ore mining and deployment of machinery vary from place to place depending upon characteristics of iron ore as per geological set up of an area.

**Production and Consumption in India *vis a vis* other countries**

5.2 A comparative steel capacity, production and consumption figure of various countries during the year 2019 is as under:

| S.No. | Country | Steel capacity, Mt | Steel production, Mt | Steel consumption, Mt |
|---|---|---|---|---|
| 1 | China | 1033 | 996.3 | 907.5 |
| 2 | India | 142.3 | 111.2 | 101.5 |
| 3 | Japan | -- | 99.3 | 63.2 |
| 4 | USA | -- | 87.8 | 97.7 |
| 5 | Russia | -- | 71.9 | 43.5 |
| 6 | South Korea | -- | 71.4 | 53.2 |

5.3 As has been informed, a few of the performance indicators of world class iron ore miners compared with the major Indian companies are given below. Such parameters further set precedence for the need of large-scale mining operations in India.

| Companies | Scale of Production | Cumulative Mining Lease Area (Sq. Km) | Cost of Production (USD/tonne) |
|---|---|---|---|
| **Vale** | Very Large | Up to 1,100 | 12.5 |
| **Rio** | Very Large | Not Available | 13.3 |
| **BHP Billiton** | Very Large | | 14.3 |
| **Fortescue Metals Group Ltd.** | Very Large | Up to 190 | 12.4 |

| | | | |
|---|---|---|---|
| **NMDC** | **Small – Medium** | **41** | **12.7** |
| **OMC** | Small – Medium | ~30 | 17 - 19 |
| **SAIL** | Small – Medium | 48 | 11 – 15 |
| **Tata Steel** | Small – Medium | 30 | 8 |
| **Rungta** | Small – Medium | Up to 29 | Not Available |
| **Serajuddin** | Small – Medium | Within 10 | Not Available |

5.4 The Committee have been informed that large mechanised mines in India are mostly in the Public Sector. Almost all the Public Sector mines including Kiriburu, Barsua, Gua, Bailadila, Donimalai, Daitari and Dalli-Rajhara operated by SAIL, NMDC and OMDC are fully mechanised. Approximately, 90% iron ore production comes from mechanised mines. NMDC operates a couple of large mechanised iron ore mines in the country at Bailadila (Chhattisgarh) and Donimalai (Karnataka).

5.5 The various factors which determine the production capacity such as geology, reserves / resources of the deposit, environment, operational sustainability, techno-economic feasibility, logistics and market feasibility, etc. decide the production to reserve ratio. The performance of NMDC is seen at par with global peers.

| **Sl. No.** | **Company** | **Country/ Region** | **Iron Ore Resource Base (in MT)** | **Iron Ore Production, CY 2018 (in MT)** | **Anticipated years of production** | **Production to Resource Base (in %)** | | |
|---|---|---|---|---|---|---|---|---|
| | | | | | | **2018** | **2017** | **2016** |
| 1 | **BHP Billiton Limited** | Australia and Brazil | 40,450 | 238 | ~ 170 | 0.6% | 0.6% | 0.6% |
| 2 | **Rio Tinto Limited** | Australia and Canada | 31,964 | 291 | ~ 110 | 0.9% | 0.9% | 1.0% |
| 3 | **Vale S.A.** | Brazil | 17,420 | 385 | ~ 45 | 2.2% | 2.1% | 1.9% |
| 4 | **Fortescue Metals Group (FMG)** | Australia | 16,969 | 169 | ~ 100 | 1.0% | 1.1% | 1.1% |
| 5 | **NMDC** | India | 2,368 | 36 | ~ 67 | 1.5% | 1.7% | 1.4% |

5.6 A comparative statement of Capacity and production of CPSEs and major private sector companies during 2019-20 is as under:-

| Sl No. | Plant | Capacity, MT/year | Production, MT/year |
|---|---|---|---|
| 1 | **SAIL** | 19.83 | 16.2 |
| 2 | **RINL** | 6.3 | 4.74 |
| 3 | **TATA STEEL Group** | 19.4 | 18.52 |
| 4 | **JSW Group** | 18 | 15.97 |

5.7 Further, a comparative statement of production and financials of Steel CPSEs and major private steel players during 2018-19 is as under:-

| Sl. No. | Items | SAIL | | RINL | | JSW | | TATA Steel | |
|---|---|---|---|---|---|---|---|---|---|
| 1 | **Production: Crude Steel in Mt** | **16.3** | | **5.52** | | **16.69** | | **13.23** | |
| 2 | **Financials/Cost** | **Annual Basis (Rs Cr)** | **Cost (Rs/t)** | **Annual Basis (Rs Cr)** | **Cost (Rs/t)** | **Annual Basis (Rs Cr)** | **Cost (Rs/t)** | **Annual Basis (Rs Cr)** | **Cost (Rs/t)** |
| a | Material Cost | 32290 | 19810 | 13730 | 24873 | 39589 | 23720 | 19840 | 14996 |
| b | Employee Cost | 8830 | 5417 | 2438 | 4417 | 1400 | 839 | 5131 | 3878 |
| c | Depreciation | 3384 | 2076 | 1058 | 1917 | 3397 | 2035 | 3803 | 2875 |
| d | Interest | 3155 | 1936 | 1278 | 2315 | 3708 | 2222 | 2823 | 2134 |
| e | Others | 18828 | 11551 | 3826 | 6931 | 17025 | 10201 | 24623 | 18611 |
| | **Total expenses.** | **66487** | **40790** | **22330** | **40453** | **65119** | **39017** | **56220** | **42494** |

5.8 It has been stated that for future availability of iron ore for the domestic industry and also for global business, due impetus in exploration and utilisation of low-grade iron ores, especially fines has to be imparted. The low-grade fines from operating mines which have not been utilised adequately and wasted, also have to be made use of.

5.9 When enquired whether any study has been done in the country on optimum utilization of fines, it has been stated that at present no such study has been done. However, major steel plants are setting up beneficiation and pellet plants in order to reduce their cost of raw

materials. KIOCL is currently operating a 3.5 MTPA Pellet Plant at Mangalore to utilize iron ore fines, sourced from NMDC and other mines.

5.10 The Committee further wanted to know the efforts, if any, made to encourage the coal based DRI (Direct Used Iron) or Sponge Iron units to use pellets thereby minimizing the use of high grade lumps. In reply, it has been stated that coal based DRI Plants as well as gas based DRI units do consume pellets. However, the quantum of pellets consumed by these units depends on the prevailing rate of lump ore or DRCLO. Further, in iron ore mining, large quantities of iron ore fines are generated which cannot be charged directly in to the Blast Furnace or Rotary Kiln (DRI unit). Such fines can be economically utilised to produce pellets. Continuously depleting high-grade iron ore deposits have left behind lower grade ores that necessitate concentration to be economically recovered. Beneficiation of low grade iron ore to higher grades followed by pelletization would serve to decrease the cost as well as production of pellets in the country.

5.11 It has further been informed that significant quantities of slimes are also generated during the wet processing of iron ores which are normally dumped in the tailing ponds and have accumulated over the years. These are considered as an environmental hazard as the risk of them causing water pollution in the vicinity areas is very high. Hence, their utilization has become necessary which has opened a new vista in iron ore utilisation and thrown a greater challenge to the mining industry to make these reserves economical for iron and steel making. As these reserves are national wealth & non-renewable, optimum utilisation of iron ore resources of the country has thus become top priority for sustainability.

5.12 Regarding the directions or guidelines in practice to ensure proper disposal/utilization of slimes to minimize the environmental damage, the Ministry in a written reply has informed that the slimes are generated in the process of washing and processing of iron ore. Rule 37 of Mineral

Conservation and Development Rules, 2017 which regulates the storage of slimes in the mines, states that slimes produced during mining operations shall be stored in separate dumps and the site storing slimes shall be selected as far as possible on impervious ground to ensure minimum leaching effects due to precipitations. While giving EC to projects related to mineral beneficiation, certain EC conditions are also imposed by MOEFCC related to disposal / utilisation of Iron Ore Slimes. These include the project proponent to pro*vide* slime disposal facility with impervious lining and collection wells for seepage. The water collected from the slime pond to be treated and re-cycled and there should be zero liquid discharge.

5.13 Also, in order to reduce the burden of iron ore tailings *vis-a-vis* its environmental impact on surroundings, IBM has reduced the cut-off Iron (Fe) percentage in iron ore from earlier 55% to 45%. Subsequently, mining industry has started exploring possibilities of utilisation of low grade iron ores, beneficiation of low grade fines and slimes.

5.14 Recalling that National Steel Policy, 2017 envisages that requirement of iron ore will increase substantially by 2030-31 and therefore there is a need to conserve and optimally utilize our iron ore resources, the Committee desired to know that how does the Ministry plan to achieve these goals for sustainable development with emphasis on minimizing environmental damage. In reply, it has been stated that efficient use of natural resources is critical for sustainability. The steel industry is required to use advanced technologies to increase production yield rates for optimal use of minerals. Ministry of Steel is also trying to promote scrap generation, collection and processing within the country in order to reduce the use of iron ore and also reduce import of scrap.

5.15 It has been added that recycling of one ton of scrap saves 1.1 ton of iron ore, 06-0.7 T of coking coal and around 0.2-0.3 T of fluxes. Specific energy consumption for production of steel through primary and

secondary routes is 14 MJ/Kg and 11.7 MJ/ Kg, respectively. Thus, it leads to savings in energy by 16-17%. It also reduces the water consumption and GHG emission by 40% and 58% respectively.

5.16 It has further been informed that the Ministry of Steel has notified Steel Scrap policy on 07.11.2019 with an objective to achieve the goal for sustainable development with emphasis on minimizing environmental damage.

## A. BENEFICIATION

5.17 The Ministry has stated that in order to ensure adequate availability of raw materials, several measures like preparation of feasibility of mining of small and low grade deposits identified earlier needs to be ascertained in view of enhanced requirement and deployment of appropriate beneficiation technology.

5.18 On being asked to pro*vide* an overview on the work being done in this direction, it has been replied that with the continuous depletion of high-grade iron ore in India and the low cut off (45% Fe of Haematite) fixed by IBM, it is necessary to beneficiate low grade iron ore into commercial grade to fulfil the demand of raw material for steel making. The National Steel Policy, 2017 promotes the utilization of low-grade fines lying at mine sites of captive iron ore miners and states that the Beneficiation and agglomeration industries would be strengthened through suitable support. Further, the Ministry of Mines has been requested to frame a Policy for providing incentives to the Beneficiation and agglomeration industries in terms of Excise duty exemption for import of machinery, tax holidays, mineral royalty waiver, preferential policy of land allotment for setting up of beneficiation plants, concession in rail/road transport fare, power subsidy etc.

5.19 It was further stated that the processing capacity of existing beneficiation technology needs to be improved to produce quality products. When asked about the efforts being made to step up the existing beneficiation technology, it has been stated that with the changing condition of iron ore in terms of physical and chemical properties *viz.* reduction in Fe percentage, increase of Silica & alumina, increase of hardness etc, the Mineral beneficiation technology has also become more efficient and cost effective. The usages of high-pressure grinding rolls- HPGR (roller process or roll sizer), gravity separation and magnetic separation, new flotation machines like column flotation have become common in iron ore beneficiation. Now new enhanced gravity separators such as Kelsey centrifugal Jigs, Falcon Concentrator, Knelson Concentrator, Multi Gravity Separator (MGS), Altair Jig, Rotating spirals and Water only cyclone have been developed for beneficiation of ultra-fines/ slimes (below 0.15 mm). These enhanced gravity separators have been proved better for the recovery of iron from slimes.

5.20 When asked whether beneficiation of only low-grade iron ore is required and also whether beneficiation of iron ore between the grade of 45 – 60% would be economically viable, the Ministry in its reply has informed that beneficiation is done not only for improving the Fe content of the iron ore but also for removal of siliceous and aluminous material adhering on the surface of the ore. Most of the high-grade iron ore mines have facilities for two stage crushing, screening and washing. The washing facilities mainly consist of gravity beneficiation equipment like wet vibrating screen, spiral classifier, hydro cyclone, thickener etc. The slime i.e. (-0.15 mm) released from these plants has about 52-60 % Fe and the same is discarded in tailing ponds.

5.21 It has further been informed that as per earlier guidelines of IBM, the cut off grade for iron ore was 55% Fe, and as a result below 55% Fe material was dumped at different mines' heads across the country. Some of the mine owners have commenced beneficiation of 55-60% Fe material

and the beneficiation plants have been set up and are operating across the country. Beneficiation of iron ore between the grade of 45-60% is technically possible depending on the ore characteristics and liberation characteristics. Separation difficulty increases from siliceous ores to aluminous ores and beneficiation becomes more challenging with hydrated ores. However, beneficiation processes are also associated with generation of huge quantity of tailings. Hence, disposal of tailings also becomes a problem with beneficiation of extremely low-grade iron ore. Presently, beneficiation plants for iron ore with Fe between 45-55% are very rare in India because of poor economics. A pilot scale iron ore beneficiation plant was planned to be set up by NMDC to beneficiate the Banded Hematite Quartzite (BHQ) & Banded Hematite Jasper (BHJ) low grade iron ore material, at Donimalai. However, due to non-availability of land from the State Forest Department this project could not be taken up. It was also informed that few plants are operating in Katni area of Madhya Pradesh to beneficiate the low-grade iron ore of 35-40% Fe.

5.22 In reply to a similar query, it has been stated that presently iron ore with Fe content equal to or greater than 60% is directly fed to the steel plants without beneficiation. Only the low-grade iron ore (+45% Fe to -60% Fe content) needs to be beneficiated. The cost of beneficiation is directly linked to power cost. It is required to be seen whether beneficiation of 45% ore to 60% or more would be economical or not.

## B. PELLETISATION

5.23 Pellets enhance the productivity of a Blast Furnace manifold. Captive pellet plants of the Integrated Steel Plants (ISPs) are more feasible as the pellets are consumed internally and such plants are in a better position to absorb variations in the raw material cost. However, for the merchant pellet plants, the feasibility depends on the cost of iron ore, transportation cost and the pellet prices prevailing in the domestic and international markets as well as EXIM policy prevailing at that time. It is

informed that a large pellet capacity addition is being planned by ISPs in the coming years. JSW/ Tata Steel are planning to use approx 40% pellets in their Blast Furnaces after commissioning of their respective Pellet Plants. JSW even intends to use more pellets replacing sinter, since pellet plants are more environment friendly than sinter plants. The large size Blast Furnaces (>3500 m3) set up in the recent past in private sector are designed to operate with approx 40% pellet charge. Pellets are consumed not only by ISPs but also by Sponge iron producers. Pellets are a natural replacement for lump ore and DRCLO. Cost of pellets can be cheaper than lump ore or DRCLO in case the pellet plants start using beneficiated ore, enhance their capacity utilization and achieve economy of scale.

5.24 India has emerged as a strong supplier of pellets to China and Middle East especially Oman. In 2019-20, about 12MTPA pellets were exported. There is currently no export duty on pellets. Regarding any efforts made to encourage the coal based DRI (Direct Used Iron) or Sponge Iron units to use pellets thereby minimizing the use of high grade lumps, the Ministry of Steel in its written reply informed that Coal Based DRI Plants as well as gas based DRI units consume pellets but the quantum of pellets consumed depends on the prevailing rate of lump ore or Directly Reduced Calibrated Lump Ore (DRCLO).

## PART-II

## OBSERVATIONS/RECOMMENDATIONS OF THE COMMITTEE

### INTRODUCTORY

The Committee observe that iron ore, an important and the most essential raw material for iron and steel industry is at the heart of the mining activities undertaken in India. Iron ore reserves are mostly found in the form of Haematite ($Fe_2O_3$) and Magnetite($Fe_3O_4$) and India is amongst the leading producers of iron ore in the world with a total resources of over 33.276 billion tonnes of Haematite and Magnetite. Further, as on 1.4.2015 a total reserves of Haematite, which is considered to be superior because of its higher grade have been estimated at 22,487 MT of which 5,422 MT (24%) are under 'Reserves' category and the balance 17,065 MT (76%) under 'Remaining Resources' category. Hence, India is endowed with fairly abundant resources of iron ore besides the fact that grade of Indian iron ore is the best in the World. The Committee also note that as envisaged in the National Steel Policy, 2017 the country's crude steel capacity is targeted to reach 300 MT by 2030-31 for which the requirement of iron ore will increase substantially and would be 437 MT at the end of the same period. Keeping this in view, the Committee expect the Government to vigorously concentrate on development of all the leased out iron ore mines, as the core sectors of economy largely depend on output from the mining sector. Focused attention is, therefore, required to identify and study the actual operation of mining leases especially in context of those mines which are lying dormant for various reasons. The Committee would like to be apprised of the Action Plan of the Ministry of Steel to ensure development of these mines.

2. The Committee have been informed that mining is a time consuming exercise as development of iron ore mines consists of

**3 phases *viz.* (i) Planning phase which includes Conceptual Study, Pre-feasibility Study and Feasibility Study; (ii) Implementation phase which includes Design and construction and commissioning; and (iii) Production phase which includes Operational or short-term production planning and Long-term production planning. The Committee are in complete agreement with the submission of the Ministry. It is therefore imperative that steel/mining industry gets a continuous support of the Government/State Governments and other related agencies to ensure timely clearance of the Environment, Forest and consent to operate so that these industries do not encounter any problem on this account. Hence, the Government ought to take the urgent required measures for early clearances on procedural, administrative, legal and environmental fronts for the uninterrupted development of the iron mines in the country.**

**3. There is no denying the fact that the steel industry has proven to be an important and crucial element in India's blueprint to achieve a USD 5 trillion economy. However, the Committee are of the considered opinion that to realise the country's crude steel capacity to reach 300 MT by 2030-31 as envisaged in the National Steel Policy, 2017, steps need to be taken to enhance steel consumption in the country and more steel plants are needed to be set up so that requirement of iron ore to an estimated 437 MT emerge by the end of 2030-31. Hence, the Committee desire the Ministry of Steel to take initiatives accordingly. The Government/Steel Companies should have consultations/ deliberations with all the stakeholders/user industries across major sectors such as construction, infrastructure, automotive, defence, rail, etc. to create the demand of Steel for their projects. The Committee would like to be apprised of the steps taken in this direction and also concrete outcomes, if any.**

**IMPORT OF IRON ORE**

**4. The Committee note that during 2017-18 and 2018-19, though the domestic consumption of iron ore was less than the total production in the country, import of iron ore increased during these years. During 2017-18 and 2018-19, iron ore to the tune of 200.96 MT and 207.67 MT, respectively were produced in the country and the domestic consumption remained only 164 MT and 170 MT, respectively. However, import of iron ore was done to the tune of 8.70 MT and 12.80 MT, respectively. The Ministry has clarified that iron ore is a freely importable item and no import licence is required for its import. The Committee further find that the logistics cost for iron ore, it being a bulk item, at times equals the basic price of the ore. This is also stated to be a reason for the consumers who are situated closer to the sea ports, import the ore, especially when the international ore prices are depressed, as they find it economical. The Committee note with satisfaction that the Ministry of Steel has taken various steps in order to decrease the logistics cost of raw materials, *viz.* (i) Ministry of Steel being the nodal Ministry for mineral pipelines is working closely with public and private sector steel producers for expeditious processing of statutory approvals required for laying of slurry pipelines which may reduce the cost of transporting iron ore significantly; (ii) Ministry is working closely with Inland Waterways Authority of India (IWAI) and the steel industry for helping to promote the use of inland waterways for transporting raw materials and finished steel as its operating cost is less than half of road transport; (iii) Ministry has also been engaging *vide* letter dated January 2020 with Department of Revenue (DoR) for reduction of import duties on raw materials that are used by the Steel sector; and (iv) Ministry is continuously engaging with Ministry of Railways(MoR) for laying of new railway lines, doubling/tripling of existing lines, reduction of freight class of**

**iron ore from 165 to 145 similar to Coal, Coke and Limestone, removal of busy season surcharge, removal of premium on Kothavalasa-Kirandul line, removal of route rationalization charges and inclusion of iron ore in Long Term Contract policy by Ministry of Railways, etc. Additionally, Ministry of Railways *vide* DO letter dated 9th July 2020, has been requested for taking a policy decision for granting Right of Way for laying of slurry pipelines along the Railway tracks. The Committee note that it has been quite some time when the Ministry of Steel took up these issues with the concerned Ministries and therefore desire that the matters should be pursued more vigorously to bring them to some logical end to ensure adequate supply of raw material at competitive rates to steel, sponge iron or pellet manufacturers. The Committee would desire to be informed of the latest developments in these matters.**

**EXPORT OF IRON ORE**

**5. The Committee note that export of iron ore has considerably increased to 36.52 MT in 2019-20 from 16.15 MT in 2018-19. Further, during 2020-21(up to August, 2020) 25.11 MT of iron ore has been exported. As informed, the Government has imposed export duty of 30% on iron ore having Fe (iron) content above 58% and it has been ensured that the export of iron ore with Fe content above 64% is canalized through MMTC. NMDC Ltd. has been exporting high grade iron ore from Bailadila mine in Chattisgarh to Japan and South Korea only through MMTC, it being the canalizing agency for high grade iron ore export under a long-term agreement (LTA) and these exports are undertaken based on the approval of Union Cabinet from time to time. The Committee further note an increase in export of iron ore by NMDC Ltd. in the year 2019-20 from the previous year. NMDC Ltd. has exported 9.59 Lakh Tonee of Lump and 14.81 Lakh Tonne of Fine in 2019-20 as compared to 4.41 Lakh Tonne of Lump and 7.37 Lakh Tonne**

of Fine in 2018-19. The Committee would like to be apprised of the reasons for increase in export of Lump and Fine during 2019-20 and would like to be apprised of the figures for export during 2020-21(as on date). While endorsing the view that mineral wealth of the country be used judiciously, the Committee desire that increase in export of finished steel goods should be promoted under the Hon'ble Prime Minister's vision of 'Atmanirbhar Bharat'.

**CURRENT STATUS OF IRON ORE MINING**

6. The Committee are glad to note the timely measures taken by the Ministry of Steel in tandem with Ministry of Mines to avert expected disruption in supply of 45-50 MT iron ore across the country owing to expiry of 37 working merchant mines on 31st March, 2020. In order to revive these mining leases, Section 8B ha6 been added in the MMDR Amendment Act, 2015 *vide* Ordinance dated 10 January 2020, for extending all statutory clearances for a period of 2 years to the new lessees, in respect of Section 8A(6) mines which were expiring on 31st March, 2020. Most of these mines are in Odisha, Jharkhand and Karnataka. Subsequently, the Mineral Laws (Amendment) Bill, 2020 which amended the MMDR Act, 1957 was passed by Parliament during March, 2020. Further, to help the Steel CPSEs to get their mines renewed with certainty, an Amendment was also made in 'Minerals (Mining by Government Company Rules) 2015' by Ministry of Mines wherein 'shall for reasons to be recorded' has been substituted in place of 'may for reasons to be recorded' in Rule 3(2) and Rule 4(3) *vide* Gazette Notification No. GSR695(E) on 27.09.2019.

Appreciating the required measures taken by Ministry of Steel and Ministry of Mines for uninterrupted mining operations, the Committee hope that the working mines in the States of Odisha, Jharkhand, Karnataka, Chhattisgarh and Maharashtra

would continue to pro*vide* the raw material to the steel industries in the country as per their requirement.

## SALE OF IRON ORE FINES

7. The Committee are informed that the Government *vide* an order dated 16.09.2019 has allowed SAIL to sell 25 percent of its total mineral production in the previous year and also dispose of the old stock of 70 MT of low-grade iron fines and ores (including slimes/ tailings) lying dumped across its different captive mines. This order was later amended On 4th January, 2020 to include all grades of iron ore fines. Accordingly, SAIL will have to get clearance from the State Governments and had, therefore, submitted applications to the State Governments of Jharkhand, Odisha and Chhattisgarh. However, the Committee note with concern that that approval of Government of Jharkhand for selling of fresh iron ore from SAIL is still awaited. Also, with regard to sale of dump fines/tailings, approval of State Governments of Jharkhand and Chhattisgarh is also awaited, despite continuous efforts of SAIL in this regard. Besides, Dispatch of slimes from Tailing Pond of Barsua Mine in Odisha will commence only after grant of Consent to Operate by Odisha State Pollution Control Board (OSPCB). Likewise, dispatches of dump fine from Bolani will commence after approval of Government of Odisha and Consent To Establish (CTE) and Consent To Operate (CTO) by OSPCB. To add to this situation, EC&FC approval of many mines of SAIL are also awaited. Keeping in view the above, the Committee desire that Ministry of Steel/SAIL should continue its efforts to get the desired approvals from the concerned State Governments and Ministry of MoEFCC at the earliest so that SAIL could fulfill its own requirements and expected shortfall in domestic iron ore market are also met.

**PENDING ENVIRONMENTAL AND FOREST CLEARANCES OF IRON ORE MINES OF SAIL**

**8. The Committee note that many iron ore mines of SAIL are facing issues relating to Environmental Clearances and Forest clearances (EC&FC) which are pending either with Ministry of Environment, Forest and Climate Change (MoEFCC) or respective State Governments. South-Central Blocks of Kiriburu-Meghahatuburu; Duargaiburu lease of Gua; and Chiria mines operating in Saranda forest division in Jharkhand falling under Management Plan for Sustainable Mining (MPSM) are awaiting FCs. Similarly, ECs with regard to Kalwar-Nagur and Pandridalli & Rajhara Pahar iron ore mining leases of Bhilai Steel Plant (BSP) mines are also pending. Further, Environment Clearances (EC) for extension of lease period of iron ore leases including *sub-judice* lease as per the provisions of Mineral (Mining by Government Company) Rules, 2015 are pending with the Government of Jharkhand. Besides, extension of lease period of ML-227, Lease of Barsua-Kalta mine is pending with the Odisha Government. As regards grant of Prospecting Licence (PL) for Thakurani Block-A, the grant of Stage-II FC for SAIL mines operating in Saranda forest in Jharkhand got delayed initially on account of finalisation of Management Plan for Sustainable Mining (MPSM) and finally got approved by MoEFCC in June,2018 after more than one and half years of deliberations. As per the approved MPSM, Gua and Kiriburu-Meghahatuburu mines are part of Mining Zone and FC may be granted after further deliberations at the level of State Govt. However, Chiria leases of SAIL which holds about 54% of SAIL's iron ore resource base are part of 'No Mining Zone' and shall be kept in abeyance till the MoEFCC takes a final view on the environmental sustainability of mining in the region. The Committee note that except Manoharpur Iron Ore Mine (Chiria), all mines of SAIL will be depleted during the period 2026 to 2045**

**and in order to bridge the gap between the iron ore production capacity and its requirement, SAIL has planned expansion in six iron ore leases of Chiria from 7 MTPA to 45 MTPA in phased manner upto 2040.**

**The Committee are well aware of the strategic importance of Chiria Mines which are critical for capacity expansion of SAIL. Taking note of the delays and considering the pending clearances at MOEFCC level or at the level of the State Governments, the Committee observe that it has resulted in a major deterrent for capacity expansion by SAIL. The Committee, would therefore, advise the Ministry of Steel/SAIL to take up the pending EC and FC issues with respective State Government and MoEFCC at the highest level and keep them informed of the progress made in the matter.**

**<u>DONIMALAI IRON ORE MINE LEASE</u>**

**9. The Committee note that mining activities in Donimalai Iron Ore Mine in which NMDC Ltd. had commissioned exploration of iron ore activity way back in 1977 had been stopped since November, 2018. Since then, NMDC Ltd. had been constantly trying to revive the mines which was contributing about 7 MT to the total capacity of 43 MT of NMDC Ltd. The Committee note that NMDC Ltd. is planning an investment of about Rs. 400 crore for construction of additional new Screening and Beneficiation Plant with a capacity of 10 MTPA and Rs. 400 crore for creating additional Loading Plant capacity. NMDC Ltd. has also installed a Pellet Plant, at a cost of about Rs. 570 crore for utilization of slimes and lean grade Iron Ore. The Committee note that though Government of Karnataka *vide* order dated 01.12.2020 had permitted NMDC Ltd. to commence mining**

operations in Donimalai Mines but the lease extension had been granted for four years and NMDC Ltd. was insisting on a lease period of 20 years. Therefore, a representation in this regard was made to Government of Karnataka by NMDC Ltd. on 23.12.2020. In a recent development, the Committee are happy to note that mining operations in Donimalai Iron Ore Mines (MI No. 2306) which had stopped w.e.f. 04.11.2018 have resumed since 18.02.2021. The Committee feel that undoubtedly, the operationalisation of the mine would bring along a sense of security for the employees of various Small and Medium Enterprises (SMEs) which are operating near Donimalai area and are directly or indirectly dependent on NMDC Ltd. for supply of raw material. Further, the local community which was dependent on CSR activities of NMDC Ltd. will also get benefited from the lease revival. While observing that mining activities had been closed in Donimalai for last 3 years due to which production of iron ore was seriously hampered, the Committee desire that in future action should be taken for renewal of such leases well in advance so that companies should not suffer due to stoppage of work. The Committee are also hopeful that mine operationalisation will help the company to stabilize its production targets and would like to be apprised of period of lease extension by the State Government.

**NEED FOR ADDITIONAL LAND ADJACENT TO MINING LEASE**

10. The Committee observe that over the years phenomenal changes have occurred in the mining sector in terms of scale of operations, mining methods, deeper mining and increased exploration. Also, there has been a substantial decrease in the threshold value of iron ore prescribed by Indian Bureau of Mines (IBM) i.e. from 58% to 45%. Besides, the advent of world class technologies have led to larger mineable mineral production. As extensive exploration requires increase in depth of mine thereby

**increasing the pit area in lateral direction and increase in the quantum of waste mining, a need is felt for additional area adjacent to an existing mining lease so that waste generated by additional reserves are accommodated. The Committee have been told that the MMDR (Amendment) Act, 2016, gives a very detailed & comprehensive definition of 'leased area' and also includes the 'non mineralized area' required and approved for activities falling under the definition of mine. However, when the exploring agencies approached the State Governments(SGs) for grant of additional area/ supplementary mining lease adjacent to the existing mining leases, State Governments were not willing to grant any area adjacent to the existing mining leases in the absence of *evide*nce of presence of mineral content in that area according to Section 5(2) of MMDR Act-1957. Further, the State Governments are of the view that these areas deserved to be auctioned. The Committee, however, find that at present the waste dump yards in mining areas are nearly filled and unable to accommodate more waste, which according to exploring agencies, is a major hindrance in increasing production from existing mines. Though, the Committee very strongly feel that proper disposal of waste generated from mining should be the topmost priority of the exploration agencies, requirement for additional area adjacent to mining leases which also seems to be a necessity especially in wake of requirement for increased production is also a need of the hour. It is *evide*nt that the purpose of defining the term "Leased Area" has not been achieved in the absence of clarity / guidelines on the matter and absence of provisions in the MMDR Act-1957 for expansion of the area of the existing Mining Leases. The Committee, therefore, recommend that Ministry of Steel should take up the matter with the Ministry of Mines and ensure proper clarity/guidelines on "leased area" or prescribe new provisions in the MMDR Act – 1957 for facilitating expansion of the area of the existing mining leases.**

## ADAPTATION OF ENVIRONMENT FRIENDLY TECHNOLOGIES IN MINING

**11. While observing that minerals play a vital role in evolution of civilization and are essential for economy of any country, the Committee feel that there is need to use them intelligently and judiciously. The Committee are also aware of the associated effects from mining activities that have negative impact on the ecosystem and the surrounding environment. The solid wastes and effluents of mining pollute the nearby land, water bodies and air considerably and therefore these wastes have to be properly managed with sustainable mining. The Committee, therefore desire that an endeavour should be made to adopt environment friendly technologies in mining of all grades of minerals with necessary provision for beneficiation/pelletization at the mining site itself. Rest of the waste accumulated can be diverted for use as construction material, etc. The Committee feel that the matter merits wider consultations among all the stakeholders to evolve a consensus to jointly evolve the concept of a zero waste model mining project and for this a working model incorporating all environment friendly technologies be experimented.**

**12. As has been informed that the steel industry is required to use advanced technologies to increase production yield rates for optimal use of minerals, the Committee are happy to note that the Ministry of Steel is trying to promote scrap generation, collection and processing within the country in order to reduce the use of iron ore and also reduce import of scrap. The Committee learn that recycling of one ton of scrap saves 1.1 T of iron ore, 06-0.7 T of coking coal and around 0.2-0.3 T of fluxes and specific energy consumption for production of steel through primary and secondary routes is 14 MJ/Kg and 11.7 MJ/Kg, respectively. Hence, it leads to savings in energy by 16-17%. This also reduces the water consumption and Green House Gases(GHG) emission by**

**40% and 58%, respectively. In this background, the Committee are pleased to note that the Ministry of Steel has notified Steel Scrap policy on 07.11.2019 which pro*vide*s a framework to facilitate and promote establishment of metal scraping centres in the country for scientific processing and recycling of ferrous scrap generated from various sources and a variety of products. The Committee are hopeful that the Steel Scrap Policy would help meet the desired objective to achieve the goal for sustainable development with emphasis on minimizing environmental damage. The Committee have been informed that National Steel Policy, 2017 envisages that requirement of iron ore in the country will increase substantially by 2030-31. While emphasising on achieving these goals for sustainable development by conserving and optimally utilizing our iron ore resources, the Committee would also like to impress upon the Government to avoid import of unprocessed scrap for minimizing the environmental damage.**

**BENEFICIATION**

**13. The Committee are given to understand that with the continuous depletion of high-grade iron ore in India and the low cut off (45% Fe of Haematite) fixed by Indian Bureau of Mines (IBM), it is necessary to beneficiate low grade iron ore into commercial grade to fulfil the demand of raw material for steel making. Presently, iron ore with Fe content equal to or greater than 60% is directly fed to the steel plants without beneficiation. Only the low-grade iron ore (+45% Fe to - 60% Fe content) needs to be beneficiated. The Committee further note that beneficiation plants for iron ore with iron content (Fe) between 45-55 % are very rare in India because of poor economics and the cost of beneficiation is directly linked to power cost. However, it is required to be seen whether beneficiation of 45% ore to 60% or more would be economical or not. In view of the above and taking note of significance of beneficiation, the Ministry of Mines has**

been requested to frame a policy for providing incentives to the beneficiation and agglomeration industries in terms of Excise duty exemption for import of machinery, tax holidays, mineral royalty waiver, preferential policy of land allotment for setting up of beneficiation plants, concession in rail/road transport fare, power subsidy, etc. The Committee believe that process of beneficiation followed by agglomeration will not only conserve the limited high grade ore but also make it possible for optimum utilisation of the available valuables from mine/process rejects which will also reduce the burden of stacking of trails/rejects kept for disposal and avoid environmental degradation being caused on account of it. The Committee, therefore, recommend that the Ministry of Steel should pursue the matter with the Ministry of Mines for early framing of the policy for providing incentives to the beneficiation and agglomeration industries.

14. The Committee also note that with the change in physical and chemical properties of iron ore like reduction in Fe percentage, increase of Silica & alumina, increase of hardness etc., the mineral beneficiation technology has become more efficient and cost effective. However, though the enhanced technology has led to make beneficiation of ultra fines or slimes below 0.15 mm possible, it is a fact that most of the iron ore mines of PSUs under Ministry of Steel are in dire need of facilities like Jigging and Magnetic separation to enrich iron content of the beneficiated ore as it is being practised in private sector. The Committee note that a pilot scale iron ore beneficiation plant which was planned to be set up by NMDC Ltd. at Donimalai, to beneficiate the Banded Hematite Quartzite (BHQ) & Banded Hematite Jasper (BHJ) low grade iron ore material could not be taken up due to non-availability of land by the State Forest Department. The Committee recommend that Ministry of

Steel/NMDC Ltd. to vigorously pursue the matter with the State Government of Karnataka for enabling early setting up of beneficiation plant at Donimalai, Karnataka.

**PELLETIZATION**

15. The Committee note that to further the process of utilization of waste generated during mining, the additional concentrate generated from beneficiation of low grade is done to make pellets. Pellets are the principal raw material for blast furnaces and have the ability to enhance the productivity of a Blast Furnace manifold. Major Steel Plants are setting up beneficiation and pellets plants in order to reduce the cost of raw materials. Taking into account the economics, the Committee also note that captive pellet plants of the Integrated Steel Plants (ISPs) are more feasible as the produced pellets can be consumed internally and such plants are in a better position to absorb variations in the raw material cost. However, in case of merchant pellet plants, the feasibility depends on many factors like the cost of iron ore, transportation cost, the pellet prices prevailing in the domestic and international markets as well as EXIM policy prevailing at that time. Further, a large pellet capacity addition is being planned by ISPs in the coming years. JSW & Tata Steel are planning to use pellets in their Blast Furnaces after commissioning of their respective Pellet Plants. While observing that pellets are consumed not only by ISPs but also by sponge iron producers and they are a natural replacement for lump ore and Directly Reduced Calibrated Lump Ore (DRCLO), the Committee desire that the pellet plants should be encouraged to use beneficiated ore, enhance their capacity utilization and achieve economy of scale for manufacture of pellets. Benefits that pelletized iron ore can offer to the steel making process, have given pellets an increasingly strong hold in the steel market, with the pelletizing of iron ore looking to be an especially important factor in meeting

**future steel needs as producers look to maximize efficiency and reduce their environmental impact. Hence, the Committee would recommend to the Ministry to take required steps accordingly and they be apprised of the action taken in this regard.**

**16. The Committee further note that India has emerged as a strong supplier of pellets to China and Middle East especially Oman. About 12 MTPA pellets were exported during 2019-20. However, at present there is no export duty on pellets. The Committee, therefore desire that coal based DRI (Direct Used Iron) or Sponge Iron units should be encouraged to use pellets, for minimizing the use of high grade lumps and Ministry of Steel should encourage Steel PSUs for pellet capacity addition in their plants and pro*vide* them necessary support /guidance in this regard.**

**NEW DELHI;**
**15 March, 2021**
**24 Phalguna, 1942(Saka)**

**RAKESH SINGH**
**Chairperson**
**Standing Committee on Coal and Steel**

**Annexure-I**

**MINUTES OF THE SITTING OF THE STANDING COMMITTEE ON COAL AND STEEL HELD ON 2ND JANUARY, 2019 IN COMMITTEE ROOM 'C', PHA, NEW DELHI.**

The Committee sat from 1500 hrs. to 1700 hrs.

**PRESENT**

**Prof. Chintamani Malviya - Chairperson**

**LOK SABHA**

2. Shri Idris Ali
3. Shri Nagesh Godam
4. Smt. Riti Pathak
5. Dr. Ravindra Kumar Ray
6. Shri Chandu Lal Sahu
7. Shri Janardan Singh 'Sigriwal'
8. Shri Pashupati Nath Singh
9. Shri Sunil Kumar Singh
10. Shri Krupal Balaji Tumane

**RAJYA SABHA**

11. Shri Ranvijay Singh Judev
12. Shri Dhiraj Prasad Sahu
13. Shri Ram Shakal

**SECRETARIAT**

| | | | |
|---|---|---|---|
| 1. | Shri R.C. Tiwari | - | Joint Secretary |
| 2. | Shri Ajay Kumar Garg | - | Director |
| 3. | Shri Arvind Sharma | - | Director |

**WITNESSES**

| **Sl. No.** | **Name** | **Designation** |
|---|---|---|
| **Ministry of Steel** | | |
| 1. | Shri Binoy Kumar | Secretary |
| 2. | Smt. Rasika Chaube | Additional Secretary |
| 3. | Ms. Ruchika Chaudhry Govil | Joint Secretary |
| 4. | Shri Puneet Kansal | Joint Secretary |
| 5. | Shri T. Srinivas | Joint Secretary |
| 6. | Shri Girraj Prasad Meena | Director |
| 7. | Shri Anil Chaudhary | Chairman, SAIL |
| 8. | Shri Harinand Rai | Director (Tech.), SAIL |
| 9. | Shri Pradosh Kumar Rath | CMD, RINL |
| 10. | Shri Amitava Mukherjee | Director, NMDC |
| 11. | Shri P.K. Satpathy | Director, NMDC |
| 12. | Shri M.V. Subbarao | CMD, KIOCL |
| 13. | Shri Rakesh Tumane | Director, MOIL |

| | | |
|---|---|---|
| 14. | Shri P.K. Sinha | MD, OMDC |

**Ministry of Mines**

| | | |
|---|---|---|
| 1. | Shri Anil Mukim | Secretary |
| 2. | Dr. N.K. Singh | Joint Secretary |
| 3. | Shri Alok Chandra | Economic Advisor |
| 4. | Dr. D. Veena Kumari | Director |

**Ministry of Environment, Forest and Climate Change**

| | | |
|---|---|---|
| 1. | Shri C.K. Mishra | Secretary |
| 2. | Shri Ravi Shankar Prasad | Joint Secretary |
| 3. | Shri A.K. Mohanty | IGF (FC) |

2. At the outset, the Chairperson welcomed the Members and representatives of the Ministries of Steel, Mines and Environment, Forest and Climate Change and Steel PSUs to the sitting of the Committee convened to take oral evidence in connection with examination of the subject, "Development of Leased Out Iron Ore Mines and Optimum Capacity Utilization".

3. The Chairperson raised specific queries on the challenges being faced by Ministry of Steel/Steel PSUs on account of delay in obtaining multiple statutory clearances and approvals from various agencies, thereby affecting the project schedule and impeding growth in Steel sector, allocation of captive mines to Steel PSUs under Section 17A of MMDR Amendment Act (2015), penalty imposed for illegal mining under Section 21(5) of MMDR Act, etc. This was followed by a Power Point Presentation by Ministry of Steel on the subject under examination. The representatives of the Ministries of Steel, Mines and Environment, Forest and Climate Change responded to the queries raised by the Hon'ble Chairperson and also briefed the Committee on the issues raised in the Power Point Presentation.

4. The Members then raised specific queries on the related issues and sought responses from the representatives of the Ministries of Steel, Mines and Environment, Forest and Climate Change and Steel PSUs on the subject.

5. Not satisfied with the replies of the Ministries, the Committee decided that the meeting should remain inconclusive as several issues were yet to be discussed elaborately. The Chairperson, then thanked the witnesses for appearing before the Committee and desired to hold another meeting very soon on the same subject. The Chairperson also directed the Ministries concerned to furnish written replies to the points raised by him and the Members on which they could not respond during the sitting, within 10 days.

A copy of verbatim proceedings of the sitting of the Committee has been kept on record.

***The Committee then adjourned.***

**Annexure-II**

**MINUTES OF THE THIRTEENTH SITTING OF THE STANDING COMMITTEE ON COAL AND STEEL HELD ON FRIDAY, THE 14 AUGUST, 2020 IN COMMITTEE ROOM NO. '1', BLOCK-A, FIRST FLOOR, PHA EXTENSION BUILDING, NEW DELHI.**

The Committee sat from 1130 hrs. to 1400 hrs.

**PRESENT**

**Shri Rakesh Singh- Chairperson**

**Lok Sabha**

2. Shri Balubhau Dhanorkar alias Suresh Narayan
3. Shri Raghurama Krishnaraju Kanumuru
4. Shri Ajay Nishad
5. Smt. Riti Pathak
6. Shri Arun Sao
7. Shri Sushil Kumar Singh
8. Shri Sunil Kumar Singh
9. Dr. Alok Kumar Suman
10. Shri Shyam Singh Yadav

**Rajya Sabha**

11. Dr. Vikas Mahatme
12. Shri Dhiraj Prasad Sahu

**SECRETARIAT**

| | | | |
|---|---|---|---|
| 1. | Shri Pawan Kumar | - | Joint Secretary |
| 2. | Shri Arvind Sharma | - | Director |
| 3. | Smt. Geeta Parmar | - | Additional Director |

**WITNESSES**

**MINISTRY OF STEEL**

1 Shri Pradip Kumar Tripathi, Secretary (Steel)
2 Ms. Rasika Chaube, Additional Secretary (Steel)
3 Shri Puneet Kansal, Joint Secretary

**STEEL PSUs**

4 Shri Anil Kumar Chaudhary, Chairman, SAIL
5 Shri Sumit Deb, CMD, NMDC

2. At the outset, the Chairperson welcomed the Secretary and other representatives of the Ministry of Steel and Public Sector Undertakings (PSUs) to the sitting of the Committee convened to have oral evidence of the representatives of the Ministry of Steel on the subject "Development of Leased Out Iron Ore Mines and optimum capacity utilization". The

Chairperson then drew their attention to Direction 55 of the Directions by the Speaker, Lok Sabha regarding confidentiality of the proceedings.

3. Thereafter, the Secretary, Ministry of Steel briefed the Committee about the current situation of the Indian Steel Sector especially the difficulties being faced due to Corona pandemic and also planning of the Ministry with respect to Prime Minister's vision of 'Atmanirbhar Bharat'. He further elaborated on the steps taken by the Ministry for ensuring raw material security, reduction in import of iron ore, increase in production and export of iron ore and the matter regarding extension of statutory clearances for a period of two years in respect of mining leases expiring on 31st March, 2020 by amending the MMDR Act, 2015 *vide* Ordinance dated 10th January, 2020.

4. The Committee then sought clarifications on steps taken by the Ministry for minimizing the export of high grade iron ore from the country, efforts so far made for its consumption within the country, reduction of import of iron ore, steps taken for provision of adequate quantity of raw material for the steel plants, constraints in the sale of low grade minerals from captive mines, problems being faced by SAIL due to delay in extension of some mining leases and due to many of SAIL's strategic mines being assigned to 'No Mining Zone', issues related to lease extension order in respect of Donimalai Mines pending with Ministry of Mines and non-achievement of production capacity of Bailadila and Bellary Mines of NMDC, etc.

5. The representatives of the Ministry replied to queries of the Members. The Chairperson directed the representatives of the Ministry of Steel to furnish written replies to the queries which remained unanswered during the sitting of the Committee within a week's time.

A copy of verbatim record of the sitting has been kept.

***The Committee then adjourned.***

**ANNEXURES-III**

**MINUTES OF THE NINTH SITTING OF THE STANDING COMMITTEE ON COAL AND STEEL (2020-2021) HELD ON MONDAY, THE 15TH MARCH, 2021 FROM 1500 HRS. TO 1600 HRS. IN HON'BLE CHAIRPERSON'S CHAMBER, ROOM NO. '210', B-BLOCK, PHA EXTENSION BUILDING, NEW DELHI.**

**PRESENT**

**Shri Rakesh Singh - Chairperson**

**Lok Sabha**

2. Shri Vijay Kumar Hansdak
3. Shri Chandra Prakash Joshi
4. Smt. Riti Pathak
5. Dr. Lorho S. Pfoze
6. Shri Chunni Lal Sahu
7. Shri Arun Sao
8. Shri Pashupati Nath Singh
9. Shri Sunil Kumar Singh
10. Shri Sushil Kumar Singh
11. Dr. Beesetti Venkata Satyavathi

**Rajya Sabha**

12. Shri Anil Desai
13. Dr. Vikas Mahatme
14. Shri Prashanta Nanda
15. Shri Samir Oraon
16. Shri B. Lingaiah Yadav

**SECRETARIAT**

| | | | |
|---|---|---|---|
| 1. | Shri Pawan Kumar | - | Joint Secretary |
| 2. | Shri Arvind Sharma | - | Director |
| 3. | Shri Uttam Chand Bhardwaj | - | Additional Director |
| 4. | Smt. Geeta Parmar | - | Additional Director |

2. At the outset, the Chairperson welcomed the Members to the sitting of the Committee. The Committee thereafter considered and adopted the following Reports without any amendments:-

(i) ** ** ** **
(ii) ** ** ** **
(iii) ** ** ** **
(iv) ** ** ** **
(v) Draft Report on the subject "Development of Leased Out Iron Ore Mines and optimum capacity utilization" relating to the Ministry of Steel.

3. The Committee then authorized the Chairperson to finalise the Reports in the light of the factual verification received from the concerned Ministries and present/lay the same in both the Houses of Parliament.

***The Committee, then, adjourned.***