

India

**Neutral** (no change)

**Highlighted Companies**

**NMDC**

**ADD, TP Rs319, Rs221 close**

Iron ore prices are rising & may stay above the above current levels. The uptrend is likely to result in higher FY25F/26F realization at ~Rs5,500-5,750/t, respectively. We estimate EPS of Rs22.4/Rs27.2/Rs30.7 for FY24F/25F/26F, respectively. We value the stock at 6.5x FY26F EV/EBITDA and introduce a new target price of Rs319.

**Summary Valuation Metrics**

	Mar24-A	Mar25-F	Mar26-F
<b>P/E (x)</b>			
NMDC	9.86	8.12	7.2
<b>P/BV (x)</b>			
NMDC	2.41	1.99	1.67
<b>Dividend Yield</b>			
NMDC	3.04%	3.7%	4.17%

# Metals and Mining

## Indian iron ore - structural upswing

- Newly auctioned iron ore mines are unviable to operate, and steel scrap availability not rising in sync with steel output. Iron ore prices are likely to rise.
- Any shortfall in production (25mt, 62%Fe) by Lloyds could lead to an iron ore shortage in FY26F. In our base case, shortage is expected to begin in FY27F.
- NMDC remains our top pick. We value the stock at 6.5x FY26F EV/EBITDA to arrive at our target price of Rs319. Retain our ADD rating on it.

### Overzealous bidding has made mines won in auctions unviable

India's iron ore reserves are substantial, but their potential has been hampered by systemic challenges. Historically, allegations of graft and subsequent investigations pushed the government to adopt auctions as the primary method for granting mining leases. Despite the Supreme Court's 2012 opinion, which suggested that auctions should not be the sole allocation method for natural resources, successive governments—including the United Progressive Alliance or UPA and National Democratic Alliance or NDA—have relied on this approach to avoid controversy. This shift, while aimed at transparency, has had its unintended consequences. Overzealous bidding during these auctions has rendered many mines economically unviable. In several cases, winning bidders committed to paying premiums so steep that operational costs now surpass market prices. For instance, some bidders agreed to pay royalties at rates equivalent to 140% of Indian Bureau of Mines' (IBM) prices, effectively tying their costs to volatile market prices. This creates a scenario where mining operations are perpetually unprofitable unless global iron ore prices surge while domestic prices remain subdued—a paradox, given India's allowance for iron ore exports. These flawed bidding strategies, often driven by aggressive assumptions rather than rational financial modelling, undermine the viability of domestic mining operations. As a result, many mines remain non-operational, straining India's iron ore supply and leaving the industry overly reliant on external factors to achieve profitability.

### Iron ore production growth is dependent on NMDC and Lloyds Metals

India's iron ore production growth is dependent on two companies: NMDC (ADD) & Lloyds Metals (UNRATED). While NMDC has environmental clearance (EC) to ramp up output to 53mt (6-7mt more than the current level), Lloyds Metals has plenty of room as it has EC for 55mt. However, please note that Lloyds Metals produces magnetite iron, which has a lower Fe content (it later undergoes beneficiation to increase the Fe content, making it usable for Indian users). For the metallic balance calculation, we have assumed an equivalent of 62% Fe content. Even after assuming full ramp-up by Lloyds Metals, India will still be facing a deficit of iron ore, as both scrap production and imports are stagnating (please note that ~60mt of electric arc furnace capacity can use scrap or sponge iron as feed material).

### NMDC is a direct beneficiary of rising iron ore prices; reiterate ADD

NMDC is a direct beneficiary of rising iron ore prices in India. We see a high probability of consensus earnings upgrades in the coming quarters. Retain ADD rating on NMDC. Downside risks: A complete ban on exports of iron ore & pellets by the government in FY26F.

**Research Analyst(s)**



**Satish KUMAR**

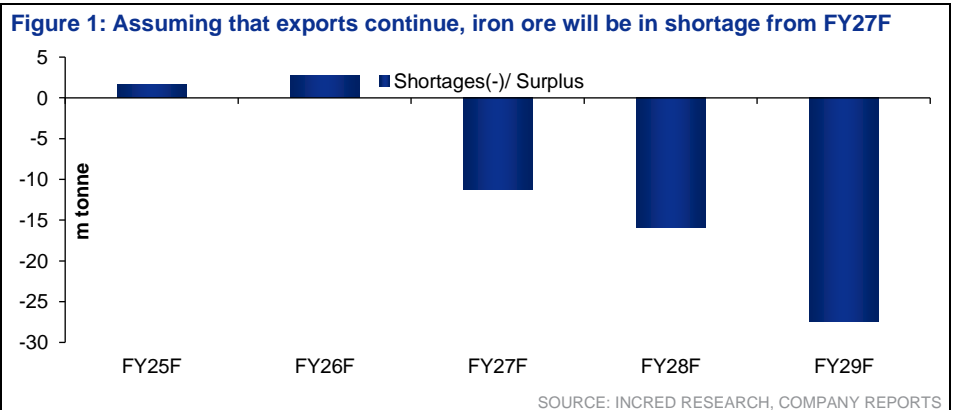
T (91) 22 4161 1562  
E satish.kumar@incredresearch.com

**Pratyush KAMAL**

T (91) 2241611549  
E pratyush.kamal@incredresearch.com

**Abbas PUNJANI**

T (91) 22 4161 1598  
E abbas.punjani@incredresearch.com



---

## Indian iron ore - structural upswing

Delay in mine ramp-up, extremely high-cost bidding, and a very tight global scrap market are likely to result in lower mine-head inventory, thereby driving domestic iron ore prices higher. It is also worth noting that international iron ore prices remain strong relative to steel prices, providing additional support for domestic iron ore prices.

### Indian iron ore production is in a tough spot

India has vast iron ore reserves; however, multiple cases of graft and subsequent investigations have led to auctions becoming the preferred route for granting mining leases. In 2012, in the context of a presidential reference, the Supreme Court stated that it did not believe auctions should be the only method for allocating natural resources. Despite this, the fear of graft allegations prompted the UPA government and subsequent administrations to adopt auctions as the preferred method. Unfortunately, overzealous bidders have often bid so aggressively that many iron ore mines won through auctions have become unviable to operate.

### In 2012, in view of the presidential reference, the Supreme court ruled that auction is not the only method for grant of natural resources ➤

The **Presidential Reference on the Auction of Natural Resources in India** is a landmark opinion by the **Supreme Court of India** under Article 143 of the Constitution, addressing the method of allocation for natural resources. This reference was made by the President of India following the controversies surrounding the allocation of natural resources, particularly in the wake of the **2G spectrum case**.

#### Background:

- **2G spectrum case:** The Supreme Court in 2012 cancelled 122 telecom licences issued in 2008, stating that the allocation of spectrum was arbitrary and unconstitutional. It held that natural resources should be allocated through a transparent method like an auction.
- The judgment raised concerns about whether auctions were mandatory for allocating all natural resources, leading to a Presidential Reference seeking clarity on the matter.

#### Key questions in the presidential reference:

- Are auctions the only permissible method for allocating natural resources?
- Does the government have the flexibility to use other methods based on economic and social considerations?
- What is the scope of judicial review in such allocation decisions?

#### Supreme Court's advisory opinion (Sep 2012):

The apex court clarified the following:

##### 1. Auctions are not mandatory:

- While auctions are a transparent and preferable method for maximizing revenue, they are not the only method permissible under the Constitution.
- The government has the discretion to adopt other methods (e.g., first-come, first-served, or direct negotiations) if they serve broader public interest, such as promoting economic growth or achieving equity.

##### 2. Public interest is paramount:

- The allocation of natural resources must always be guided by public interest.

- The government should justify its choice of the allocation method with sound reasoning aligned with constitutional principles.
- 3. Judicial review:**
- The judiciary can review allocation decisions to ensure they are not arbitrary or malafide.
  - However, the judiciary will not interfere with the policy decisions of the executive unless there is clear evidence of legal or constitutional violations.
- 4. Revenue maximization is not the sole objective:**
- The government is not bound to maximize revenue at all costs.
  - Factors like economic development, employment generation, and public welfare can also influence allocation methods.

**Implications:**

- This opinion upheld the principle that natural resources are owned by the public and should be used in a manner that benefits the society as a whole.
- It restored some flexibility to the government in resource allocation, balancing the need for transparency with economic and social considerations.

This presidential reference remains a guiding framework for policymaking on the allocation of natural resources in India.

### **However, for the fear of graft charges, governments have chosen the path of auction, which is essentially profit maximization ➤**

Despite the Supreme Court's opinion on the presidential reference, the UPA government in 2012 and subsequent NDA governments have chosen the path of auctions, which essentially prioritizes profit maximization.

### **In 2015, the Government of India introduced the MMDR Amendment Act, which established a timeline for the expiry of all old mining leases ➤**

The Mines and Minerals (Development and Regulation) Amendment Act, 2015 (MMDR Amendment Act, 2015) brought significant reforms to the allocation and regulation of mining leases in India. One key aspect of the amendment was the establishment of a clear timeline for the expiry of old mining leases, aimed at promoting transparency, efficiency, and fair allocation of mineral resources. Key provisions related to expiry of old mining leases:

**A. Auction as the sole method for grant of mining leases:**

The amendment introduced competitive bidding (auctions) as the only method for granting mining leases for major minerals, ending the earlier first-come, first-served or discretionary allocation process.

This move aligned with the principles laid down in the Supreme Court's judgments, including the presidential reference on natural resources.

**B. Timelines for expiry of existing leases:****a. Captive and non-captive mines:**

The amendment set specific deadlines for the expiry of leases granted before the enactment of the MMDR Act, 1957:

Non-captive mines (mines that sell minerals to third parties): Expiry on 31 Mar 2020.

Captive mines (mines used for specific industries, such as steel and cement): Expiry on 31 Mar 2030.

**b. Mandatory re-auction after expiry:**

Upon the expiry of these old leases, the mining blocks were to be reallocated through public auctions, ensuring transparency and maximization of government revenue. This marked a shift towards a market-based approach for resource allocation.

**c. Transition provisions:**

Existing leaseholders were allowed to continue operations until the expiry of their leases, provided they adhered to statutory compliance requirements.

### Overzealous and insecure companies have bid too high in iron ore auctions >

With the mining ban fresh in their minds, most steel companies bidding in iron ore mine auctions, are bidding at an obnoxious premium to the Indian Bureau of Mines' prices.

**Figure 2: Most iron ore blocks with potential for immediate mining have been bid at extremely high premiums; please note that the bid percentages represent the premium over IBM prices (IBM = Indian Bureau of Mines); this is the list of recent auctions which have not happened in Odisha**

Name of Block	Preferred Bidder	Date of auction	ML / CL	Area (in ha)	Reserves (in mt)	Final Bid (in %)
Mincheri RF	South-West Mining Limited	11.03.2024	CL	1327	NA	12.6
Basri Ganeshpura Block	Terroso Quartz Private Ltd.	18.04.2024	CL	38.19	6.5	97.01
Dedrauli Iron-ore Block	Pacific Industries Ltd.	29.04.2024	CL	754.38	395.14	211.9
Khora Iron-block	Win Ferro Alloys Private Ltd.	30.04.2024	CL	462.3	354.27	108.2
Todupura Iron-block	Gallantt Ispat Ltd.	02.05.2024	CL	260.71	85.42	175.05
Liloti Block	Ambashakti Udyog Ltd.	16.08.2024	CL	410.94	3.65	77.55
Surjagad – 1 Iron Ore Block	Natural Resources Energy Private Ltd.	09.05.2023	CL	1526	N.A.	126.35
Surjagad – 2 Iron Ore Block	Universal Industrial Equipment and Technical Services Pvt. Ltd.	09.05.2023	CL	886	N.A.	139.75
Surjagad – 3 Iron Ore Block	Omsairam Steels and Alloys Pvt. Ltd.	09.05.2023	CL	640	N.A.	115.1
Surjagad – 4 Iron Ore Block	JSW Steels Ltd.	12.05.2023	CL	397	N.A.	131.05
Surjagad – 6 Iron Ore Block	Sunflag Iron and Steel Company Limited	17.05.2023	CL	658	N.A.	118.45
Block V- Advalpale-Thivim Mineral Block	Fomento Resources Private Limited	21.04.2023	ML	36.22	3.83	58.85
Block VI- Cudnem-Cormolem Mineral Block	JSW Steel Limited	25.04.2023	ML	38.51	9.77	96.65
Block VII-Cudnem Mineral Block	Vedanta Limited	26.04.2023	ML	75.3	8.28	93.15
Block VIII-Thivim-Pirna Mineral Block	K A I International Private Limited	27.04.2023	ML	72.05	1.69	100.12
Block IX-Surla-Sonshi Mineral Block	JSW Steel Limited	28.04.2023	ML	254.51	65.73	109.8
Nayorana-Dandela	Pacific Industries Limited	11.07.2023	CL	16.78	3.3	40.05
Block No. 04, HRG	R Praveen Chandra	24.07.2023	ML	40.04	5.32	149.1
Lakshmakapalle (North)	JSW Steel Ltd.	28.07.2023	CL	N.A.	N.A.	17.1
Lakshmakapalle (South)	JSW Steel Ltd.	28.07.2023	CL	N.A.	N.A.	16.2
Addankivariipalem	JSW Steel Ltd.	28.07.2023	CL	N.A.	N.A.	14.4
Meralgara-Barabaljori Iron Ore Block	M/s Agrasen Sponge Pvt. Ltd.	10.08.2023	ML	115.22	0.64	250.1
Ladi Ka Bas Block Tehsil Neem ka Thana & District Sikar	Sponge Sales India Pvt. Ltd.	28.08.2023	CL	38.75	N.A.	145.65
Kalakota Block Tehsil Neem ka Thana & District Sikar	Emerald Buildhome Private Ltd.	29.08.2023	CL	34.44	N.A.	275
Toda Block n/v Toda, Tehsil Neem ka Thana, District Sikar	Emerald Buildhome Pvt Ltd	12.09.2023	CL	18.43	N.A.	66
Siluwa and Jhansi Iron Ore Block	Khatri Minerals & Mining Company	13.09.2023	ML	4.59	0.86	822.55
Pindrai Iron Ore Block	Syna Steels Private Limited	14.09.2023	ML	6	2.12	302.52
Jaisinghpura North Block	JSW Steel Limited	21.08.2023	ML	298.59	17.66	150.3
Girar	Fomento Resources Pvt. Ltd.	23.11.2023	CL	271.18	Fe-100	4.05
Bharhari	Fomento Resources Pvt. Ltd.	24.11.2023	CL	134.77	14.89	4.8

SOURCE: INCRED RESEARCH, COMPANY REPORTS

### The premiums mentioned in the above table are a percentage of the declared IBM prices >

The premiums at which these mines are bid represent the amount paid over the respective IBM prices of iron ore in that state.

### IBM calculates prices for each particular state using the following broad methodology: >

IBM (Indian Bureau of Mines) calculates iron ore prices in India using a systematic methodology based on market transactions, quality parameters, and government regulations. The key steps and factors involved in the calculation are as follows:

**A. Monthly average sale price (MASP):**

- The **MASP** is determined for each grade of iron ore and is the average of the prices at which transactions occurred during the previous month.
- IBM collects data on actual **sales prices** reported by mining companies, including dispatch details.

**B. Basis of price determination:**

The MASP is influenced by several factors:

1. **Grade of iron ore:**
  - Iron ore is categorized based on **Fe content (iron content)**, typically in bands (e.g., 58%-60%, 60%-62%, etc.).
  - Higher-grade ores fetch higher prices due to greater demand in steel-making.
2. **Form of iron ore:**
  - Prices differ based on whether the ore is sold as **lumps, fines, or concentrates**.
  - Lumps typically command a premium due to better usability in steel-making.
3. **Transportation and logistics:**
  - The location of mines and proximity to end-users or ports impact transportation costs, which can indirectly influence prices.
4. **Market transactions:**
  - Prices reflect **actual realized sales** from mines to buyers such as steel-makers and traders.
  - IBM ensures that prices reported align with verified invoices.
5. **Reporting and verification:**
  - Mining companies are required to submit monthly returns to IBM with details on:
    - **Quantity sold**
    - **Price per tonne**
    - **Grade**
    - **Destination**
  - IBM audits these returns to ensure accuracy.

**In case there are multiple merchant mines in the state, then they take top 10 mines for price calculation ►**

The **Indian Bureau of Mines (IBM)** often prioritizes data from the **top merchant mines** in a state when calculating the **monthly average sale price (MASP)** for iron ore. This approach ensures that the price reflects the **most representative and high-volume transactions** in the region. Here's how this works:

**1. Focus on top merchant mines:**

- IBM relies on **transaction data** submitted by mining companies. For states with multiple mines, IBM may focus on the **top 10 merchant mines** by production or sales volume.
- This ensures that the prices reflect the **bulk of the market activity** rather than outliers or smaller-scale operations.

**2. Weightage to high-volume transactions:**

- IBM assigns a higher weightage to **high-volume transactions** to derive a fair average price.
- Top merchant mines contribute significantly to overall iron ore sales, making their prices more relevant in determining state-level averages.

**3. Elimination of outliers:**

- Smaller mines or atypical transactions with unusually high or low prices are often excluded or given lower weightage.

- By using data from large, active mines, IBM avoids skewing the MASP with anomalies.

**4. State-specific calculation:**

- MASP is calculated **state-wise**, as the iron ore prices can vary significantly across states (e.g., Odisha vs. Karnataka) due to:
  - Differences in **grade availability**.
  - **Logistics costs** to end-user markets.
  - Local **supply-demand dynamics**.

**Hence, viability of all these iron ore mines has to seen vis-à-vis respective state - in almost 100% of cases, these mines are unviable for any usage ➤**

We make the following broad assumptions for calculation of mine viability.

- Cost of mining in most of these mines is minimal. In most, recurring opex for mining is less than US\$10/t.
- We have left the mines which require prospecting, etc, which means they are multiple years away from production.

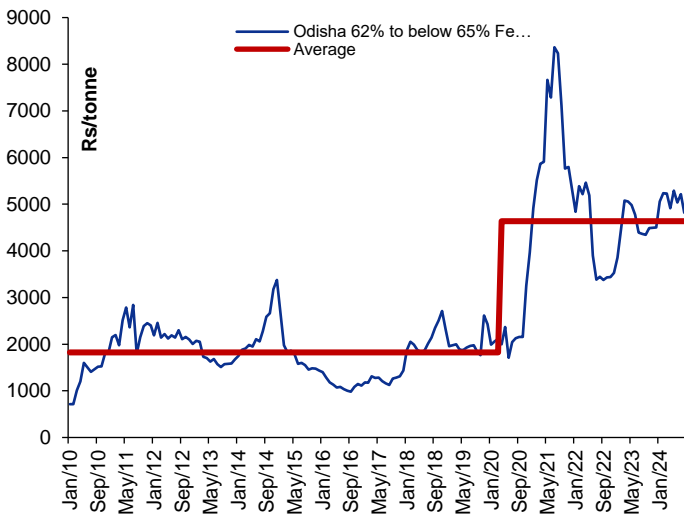
Here, we will analyze the case of Odisha, as this state can export iron ore as well as pellets.

**Figure 3: The average bid in Odisha has been at 112% to IBM prices**

State	Name of the Block	Mineral	Date of auction	ML / CL	Area (in ha)	Reserves (in mt)	Final Bid (in %)	preferred bidder
Odisha	Ghoraburhani- Sagasahi	Iron Ore	02.03.2016	ML	139.2	99.59	44.35	Essar Steel
Odisha	Kalamang West (Northern part)	Iron Ore	18.05.2017	ML	92.875	92.85	100.1	Bhushan Steel Ltd
Odisha	Netrabandha	Iron Ore	19.05.2017	ML	139.22	81.973	87.15	Bhushan Power and Steel Ltd
Odisha	Nuagaon Iron Ore Block	Iron Ore	31.01.2020	ML	776.97	789.05	95.2	JSW Steel Ltd
Odisha	Narayanposhi Iron Ore & Manganese Block	Iron Ore & Manganese	01.02.2020	ML	347.01	185.1	98.55	JSW Steel Ltd
Odisha	Thakurani Iron Ore Block	Iron Ore	02.02.2020	ML	228.74	179.27	107.6	Arcelor Mittal India Pvt Ltd
Odisha	Balda Iron Ore Block	Iron Ore	03.02.2020	ML	343.98	200.11	118.1	Serajuddin & Co.
Odisha	Ganua Iron Ore Block	Iron Ore	04.02.2020	ML	88.516	118.92	132	JSW Steel Ltd
Odisha	Jilling - Langalota Iron Ore Block	Iron Ore	05.02.2020	ML	456.04	72.84	135	Shyam Ores Jharkhand Pvt. Ltd (reserved for OMC)
Odisha	Jajang Iron Ore Block	Iron Ore	06.02.2020	ML	669.08	39.42	110	JSW Steel Ltd
Odisha	Roida II Iron Ore Block	Iron Ore	07.02.2020	ML	74.702	25.89	90.9	Narberam Power and Steel Pvt Ltd
Odisha	Mahulsukha Iron Ore & Manganese Block	Iron Ore and Manganese	08.02.2020	ML	390.32	33.54	92.7	Patnaik Minerals Private Ltd
Odisha	Gorumahisani Iron Ore Block	Iron Ore	10.02.2020	ML	348.05	17.6	115	Ghanshyam Mishra & Sons Private Limited
Odisha	Nadidih Iron Ore and Manganese Block(Feegrade)	Iron Ore and Manganese	16.09.2021	ML	117.21	23.69	92.3	ESL Steel Ltd
Odisha	Kolmong Iron Ore and Manganese Block	Iron Ore and Manganese	12.02.2020	ML	218.48	Fe-1.4, Mn-3.69	100	Yazdani Steel & Power Ltd
Odisha	Siljora-Kalimati Block	Iron Ore and Manganese	13.02.2020	ML	713.51	Fe-0.72, Mn-3.79	154	DebabrataBehera
Odisha	Jaribahal Iron Ore Block	Iron Ore	14.02.2020	ML	107.44	7.15	150	Kashvi International Pvt Ltd
Odisha	Teherai Iron Ore and Manganese Block	Iron Ore and Manganese	15.02.2020	ML	135.08	Fe-8.90, Mn-0.06	93.06	Tarama Appartment Pvt Ltd (Forefeited)
Odisha	Jururi Iron Ore Block	Iron Ore	16.02.2020	ML	73.413	2.7	126.3	JagatJanani Services Private Limited
Odisha	Guali Iron Ore Block	Iron Ore	17.03.2020	ML	365.03	194.94	144	Jindal Steel & Power Ltd (reserved for OMC)
Odisha	Badampahar Iron Ore Block	Iron Ore	01.07.2020	ML	128.43	4.484	95.15	GM Iron & Steel Company Ltd
Odisha	Kasia Iron Ore & Dolomite Block	Iron Ore & Dolomite	16.09.2021	ML	194.19	278.04	118.1	Jindal Steel & Power Ltd
Odisha	Nadidih Iron Ore Block (BICO)	Iron Ore	16.09.2021	ML	74.5	27.04	95.6	ESL Steel Ltd
Odisha	Chandiposhi Iron Ore Block	Iron Ore	16.09.2021	ML	131.58	47.07	113.1	Rungta Mines Ltd
Odisha	JumkaPathiriposhiPahar Iron Ore Block	Iron Ore	16.09.2021	ML	158.509	140.28	110.15	Rungta Mines Ltd
Odisha	Dholtapahar Iron Ore Block	Iron Ore	16.09.2021	ML	60.51	23.92	126.55	Kashvi Power & Steel Pvt. Ltd
Odisha	Gandhalpada Iron Ore Block	Iron Ore	16.09.2021	ML	241.1	314.37	141.25	Tata Steel Mining Ltd
Odisha	NetrabandhaPahar (West)	Iron Ore	16.09.2021	ML	74.37	17.265	139.5	Raga Tradecon Pvt. Ltd
Odisha	Pureibahal Block	Iron Ore	04.10.2021	ML	64.337	46.8	124	Rungta Mines Limited
Odisha	Kendudhi North Block	Iron ore & Manganese	14.03.2023	ML	187.86	109.76	100	Rungta Mines Limited
Odisha	Kedesala North East Block	Iron Ore	17.03.2023	ML	100.44	51.89	100	Rungta Mines Limited
Odisha	Orahuri Block (E)	Manganese & Iron Ore	21.03.2023	ML	50.203	7.18	140.1	Om Sairam Steels & Alloys Pvt. Ltd.

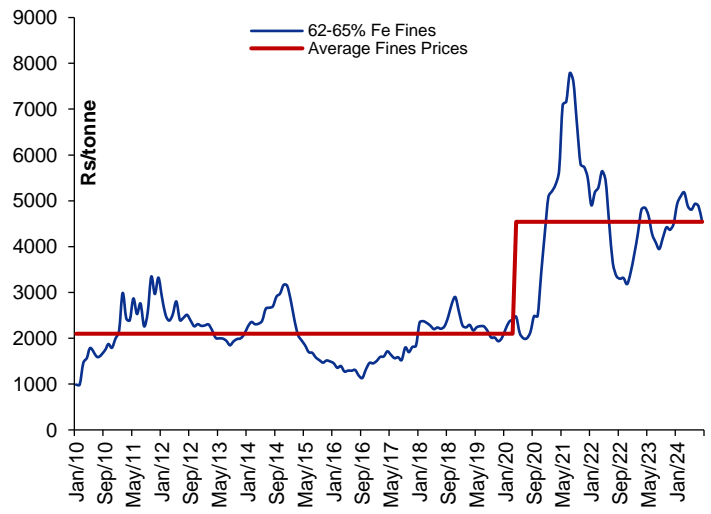
SOURCE: INCRED RESEARCH, COMPANY REPORTS

**Figure 4: The average IBM price in Odisha in the last five years has been Rs4,600/t**



SOURCE: INCRED RESEARCH, COMPANY REPORTS

**Figure 5: All-India average price for the same grade has been ~ Rs4,500/t**



SOURCE: INCRED RESEARCH, COMPANY REPORTS

It is evident that when market prices are at Rs4,700/t, miners with a minimum production cost of  $112\% \times \text{Rs}4,700 + \text{Rs}800 = \text{Rs}6,064/\text{t}$  cannot operate profitably. As a result, most of these mines have yet to commence production.

Even exports are not viable for these mines, as higher than 58% grade iron ore attracts 30% export duty, which makes them unviable. The other option is to set up a pellet plant to convert iron ore into pellets and then export the same to China. However, as we will see in the calculations, even that is not a viable alternative for Indian iron ore producers.

**Figure 6: Selling iron ore from merchant mines won in an auction is not viable**

	US\$/t	Rs/t
CIF China prices	110	9,240
Freight and insurance charges	10	840
FOB realization	100	8,400
FOB realization adjusted for moisture	90	7,560
Land freight	24	2,000
Ex-mine realization	66	5,560
Premium paid	63	5,264
Ex-mine NSR	4	296
Mining costs	10	840
Net EBITDA loss	-6	-544

SOURCE: INCRED RESEARCH, COMPANY REPORTS

**Figure 7: Even converting them into pellets and selling is also a loss-making proposition**

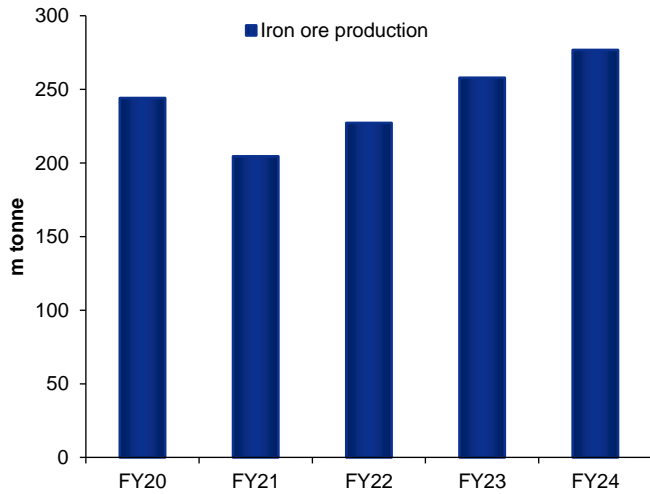
	US\$/t	Rs/t
CIF China prices	130	10,920
Freight and insurance charges	10	840
FOB realization	120	10,080
Land freight	24	2,000
Ex-plant realization	96	2,000
Pellet-making costs	23.81	2,000
Iron ore costs	74.36	6,246
Pellet EBITDA	-1.98	-166

SOURCE: INCRED RESEARCH, COMPANY REPORTS

**As a result, iron ore production is not growing at the pace envisioned during iron ore mine auctions ➤**

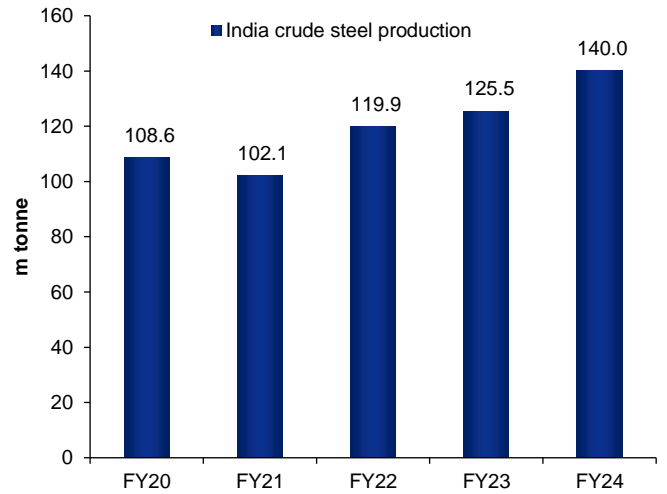
For the past few years, Indian iron ore production has stagnated and failed to keep pace with the growth in crude steel production in the country. This imbalance is causing a decline in India's mine-head inventory.

**Figure 8: Despite multiple auctioned mines, iron ore production has only increased by 10% between FY20-24**



SOURCE: COMPANY REPORTS, INCRED RESEARCH

**Figure 9: However, crude steel production has increased by ~30% during the same period**

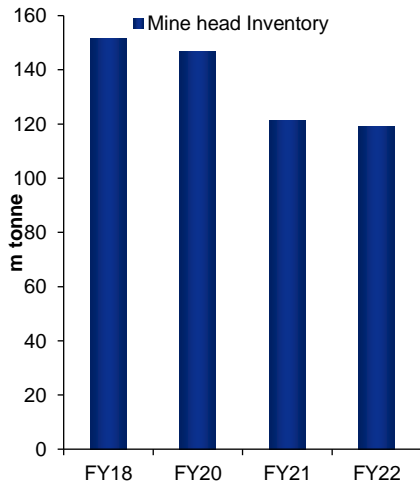


SOURCE: COMPANY REPORTS, INCRED RESEARCH

**As a result, India's mine-head inventory is declining rapidly, and the usability of this inventory is also deteriorating ➤**

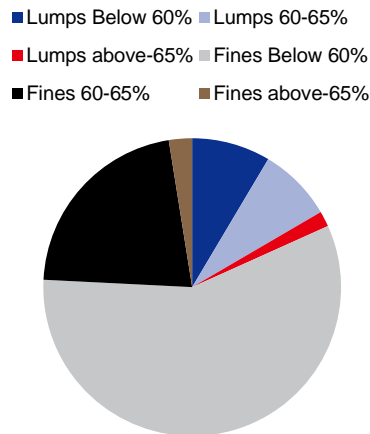
In our estimation, nearly 70% of the mine-head inventory is now unusable for Indian pellet-makers and blast furnaces. Additionally, China has been reducing imports of low-grade iron ore due to environmental concerns in Hebei, rendering this inventory largely unsaleable.

**Figure 10: Indian mine head inventory of iron ore is declining**



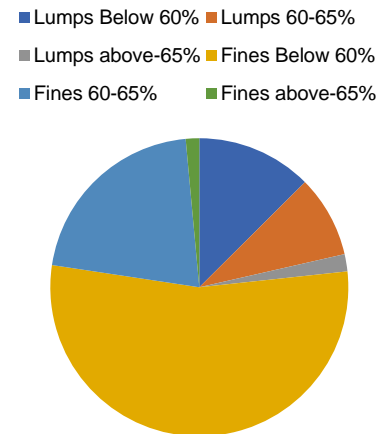
SOURCE: INCRED RESEARCH, COMPANY REPORTS

**Figure 11: Quality of iron ore mines was bad in FY20...**



SOURCE: INCRED RESEARCH, COMPANY REPORTS

**Figure 12: ...and it has become worse in FY22**

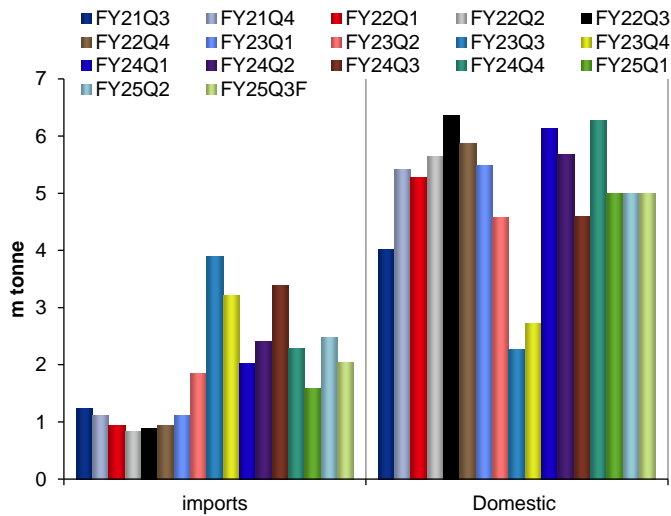


SOURCE: INCRED RESEARCH, COMPANY REPORTS



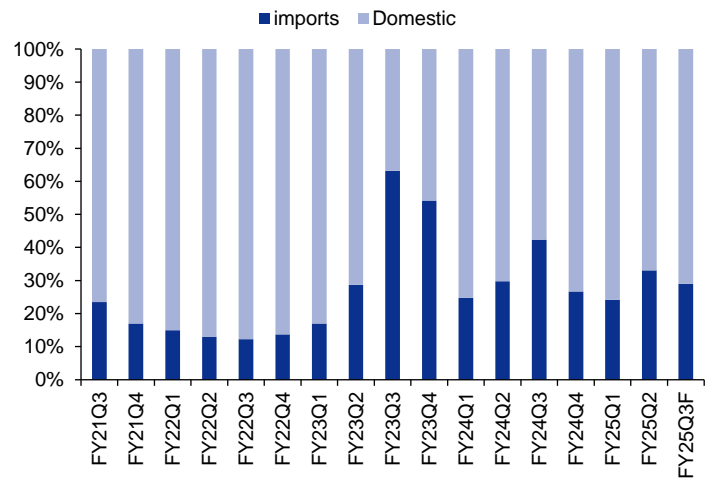
**To counter the unavailability, Indian domestic scrap production has risen fast ➤**

**Figure 13: Indian production of scrap has risen**



SOURCE: INCRED RESEARCH, COMPANY REPORTS

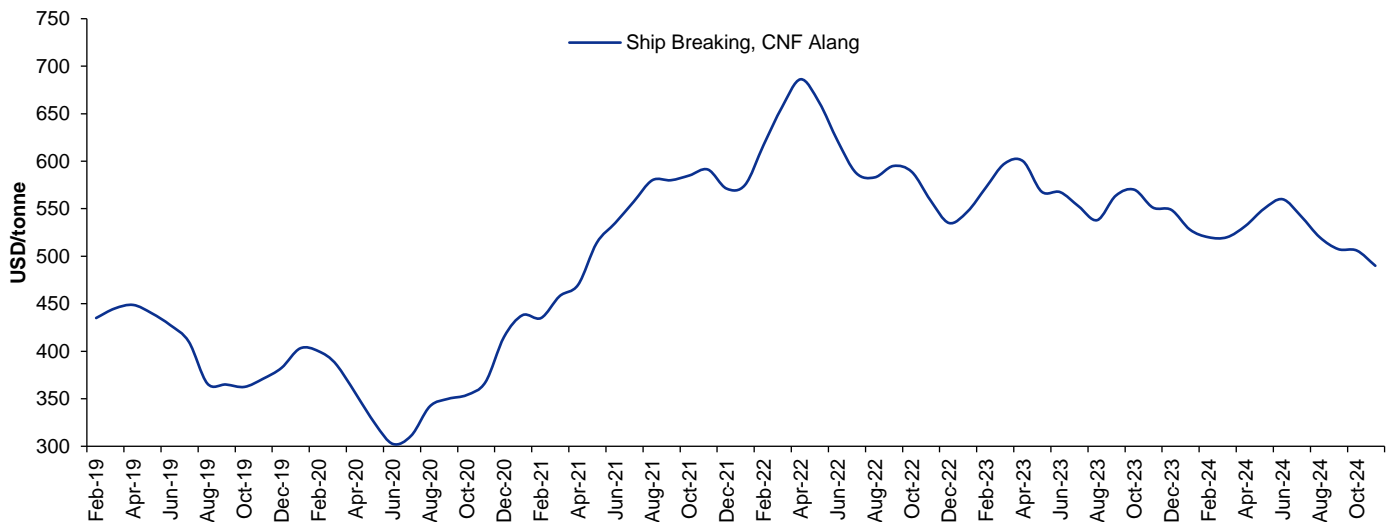
**Figure 14: However, imports are becoming costlier and hence, its share in Indian scrap consumption is falling**



SOURCE: INCRED RESEARCH, COMPANY REPORTS

**However, domestic production of scrap seems to be peaking, as evidenced by declining prices in the ship-breaking industry ➤**

**Figure 15: Indian ship-breaking yards are struggling to keep themselves occupied and hence, they are ready to operate at lower prices, which is bad news for Indian domestic scrap production**

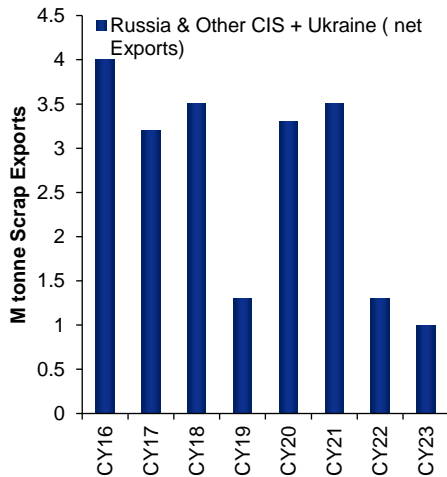


SOURCE: INCRED RESEARCH, COMPANY REPORTS

**International scrap trade is not rising as scrap-producing countries are using the same for internal consumption ➤**

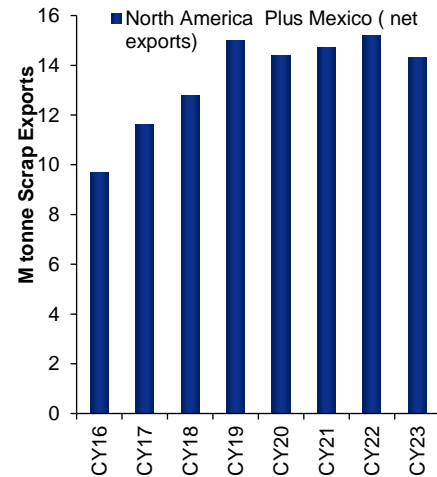
Notably, in the US, scrap exports are declining, while imports in Asia (excluding China) are rising. In this scenario, it seems unlikely that India will be able to import ferrous scrap at competitive prices.

**Figure 16: CIS countries' net scrap exports are falling**



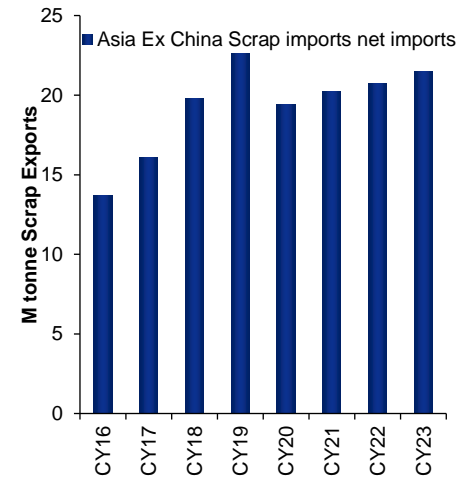
SOURCE: INCRED RESEARCH, COMPANY REPORTS

**Figure 17: North America + Mexico's scrap exports are also stagnating**



SOURCE: INCRED RESEARCH, COMPANY REPORTS

**Figure 18: Asia ex-China scrap imports are rising**



SOURCE: INCRED RESEARCH, COMPANY REPORTS

**Indian metallic balance looks precarious unless something dramatic happens on the iron ore production front ➤**

Notably, in the US, scrap exports are declining, while imports in Asia (excluding China) are rising. In this scenario, it seems unlikely that India will be able to import ferrous scrap at competitive prices. A lot will depend how Lloyds Steel will be able to ramp up production in their mines in Maharashtra and as well as the fact whether iron ore will be usable in existing furnaces. If that doesn't happen, then we can see India importing iron ore and then may be Indian merchant mines can start production of iron ore.

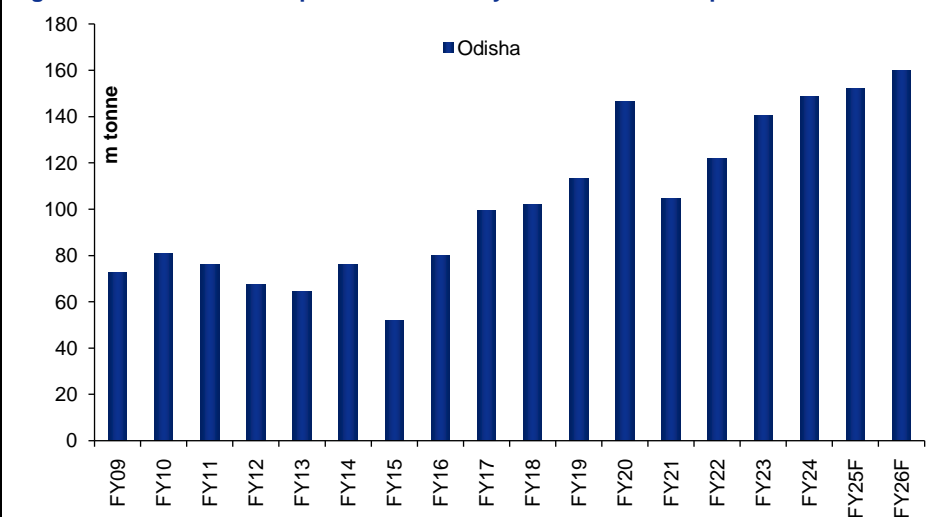
**Indian mettalic balances - a lot depends on Lloyds Steel's ramp-up plan**

With production ramp-up in Odisha looking unlikely, the Indian steel industry's hopes rest on Lloyds Steel's iron ore mines in Maharashtra. It is important to note that Lloyds Steels is mining magnetite ore in Maharashtra, which has a low Fe content and requires advanced beneficiation techniques to make it suitable for industrial use.

**We don't expect any major iron ore production ramp-up in Odisha ➤**

While numerous mines have been auctioned in Odisha, we do not anticipate any production ramp-up in the state due to the unviable nature of operations, as discussed earlier in this report.

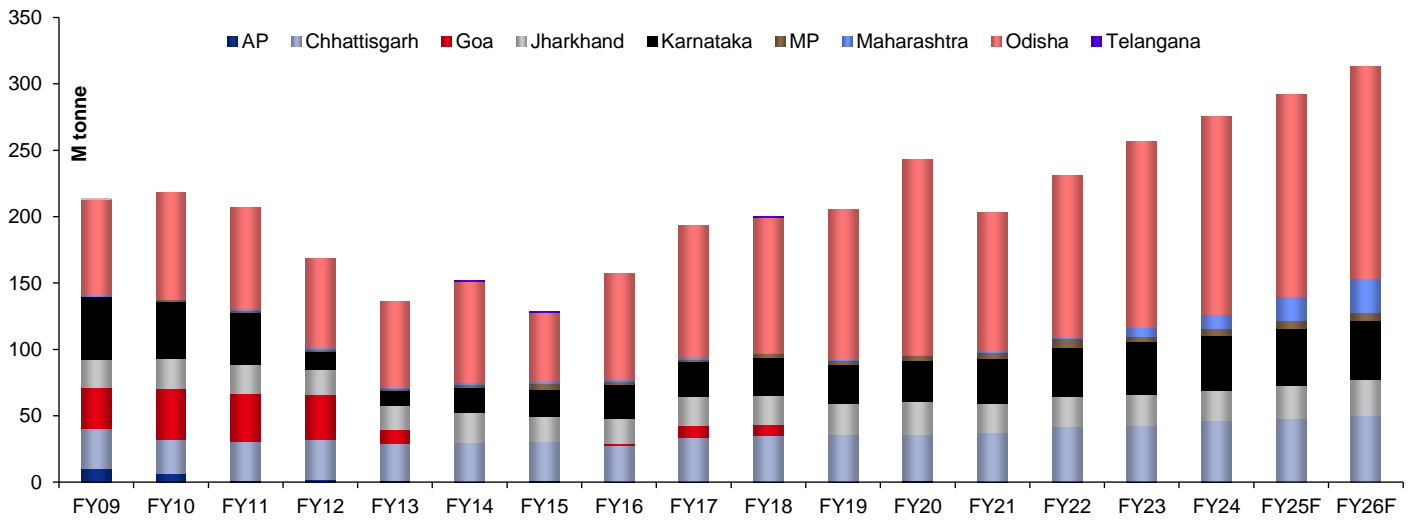
**Figure 19: Odisha iron ore production is likely to rise at a sedate pace**



SOURCE: INCRED RESEARCH, COMPANY REPORTS

### India's hopes for a production ramp-up now rest solely on Lloyds metal and its mining plans in Maharashtra ➤

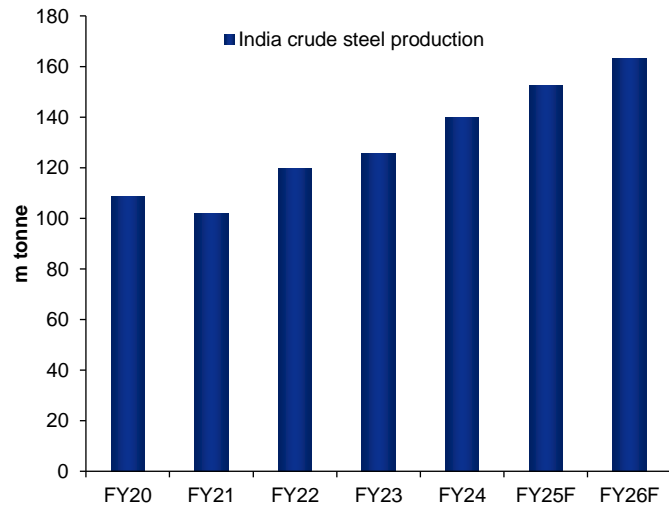
**Figure 20: Maharashtra has the potential to emerge as a major iron ore production hub in India soon; for Lloyds Steel, production figures have been converted into percentages equivalent to 62%-grade iron ore for comparison**



SOURCE: INCRED RESEARCH, COMPANY REPORTS

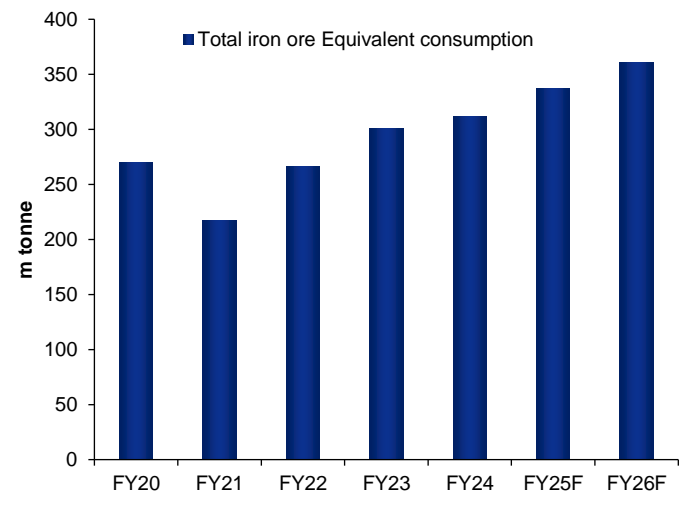
### We expect Indian crude steel production growth at a 9% CAGR over the next few years, which will cause iron ore shortage ➤

**Figure 21: Indian crude steel production can grow at a 9% CAGR...**



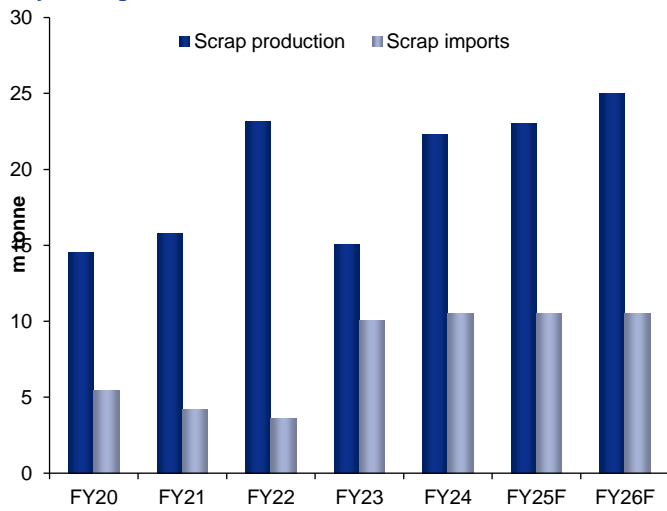
SOURCE: INCRED RESEARCH, COMPANY REPORTS

**Figure 22: ...which means iron ore equivalent requirement will be ~ 317mt in FY26F**



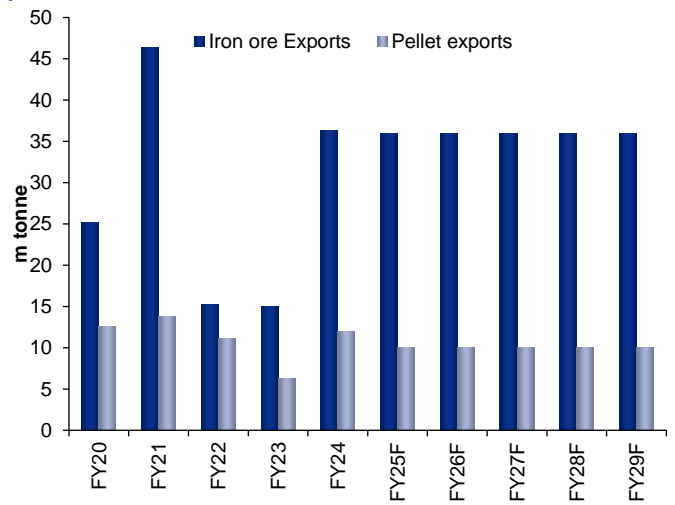
SOURCE: INCRED RESEARCH, COMPANY REPORTS

**Figure 23: Scrap imports as well as domestic production are likely to stagnate...**



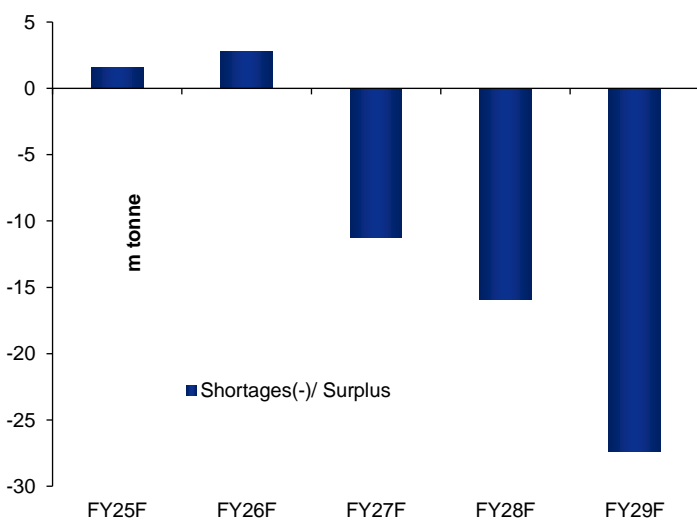
SOURCE: INCRED RESEARCH, COMPANY REPORTS

**Figure 24: ...if India allows unabated exports of iron ore and pellets**



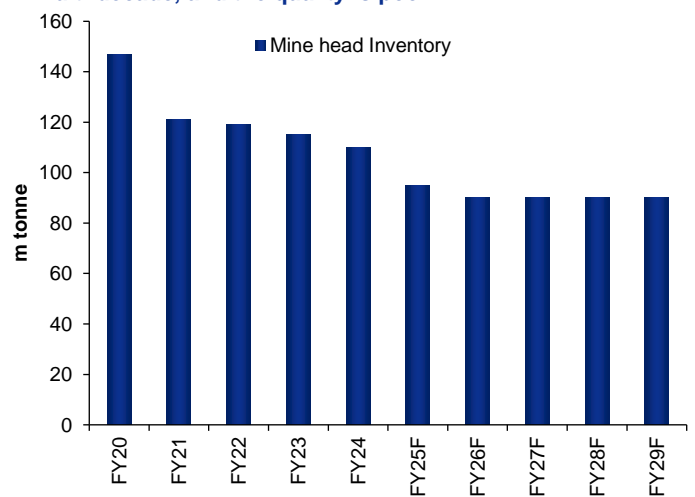
SOURCE: INCRED RESEARCH, COMPANY REPORTS

**Figure 25: ...then we will have iron ore shortage in FY26/27F...**



SOURCE: INCRED RESEARCH, COMPANY REPORTS

**Figure 26: ...as Indian mine head inventory is at a minimal level in multi-decade, and the quality is poor**



SOURCE: INCRED RESEARCH, COMPANY REPORTS

**May be the government will intervene in the next few months to curb exports of iron ore, which is the only way to curb the massive rise in iron ore prices ➤**

In the past, the government of India has always intervened to protect the steel industry from skyrocketing iron ore prices and we can expect the same in coming months.

**If that doesn't happen, then Odisha fine can touch Rs 8,000/t➤**

**Figure 27: At current global prices, iron ore import costs for Indian users are estimated to be around Rs11,000/t, indicating that Odisha iron ore prices could reach Rs8,000-8,500/t**

	Value	Unit
FOB Australia prices	100	US\$/t
Freight charges	8	US\$/t
Import duty	10.8	US\$/t
Handling charges	5	US\$/t
Landed cost	123.8	US\$/t
Inland freight charges	10	US\$/t
Overall landed cost at factory gate	133.8	US\$/t
Landed cost in INR	11,239	Rs/t

SOURCE: INCRED RESEARCH, COMPANY REPORTS

---

## DISCLAIMER

---

This report (including the views and opinions expressed therein, and the information comprised therein) has been prepared by Incred Research Services Private Ltd. (formerly known as Earnest Innovation Partners Private Limited) (hereinafter referred to as "IRSPL"). IRSPL is registered with SEBI as a Research Analyst vide Registration No. INH000011024. Pursuant to a trademark agreement, IRSPL has adopted "Incred Equities" as its trademark for use in this report.

The term "IRSPL" shall, unless the context otherwise requires, mean IRSPL and its affiliates, subsidiaries and related companies. This report is not directed or intended for distribution to or use by any person or entity resident in a state, country or any jurisdiction, where such distribution, publication, availability or use would be contrary to law, regulation or which would subject IRSPL and its affiliates/group companies to registration or licensing requirements within such jurisdictions.

This report is being supplied to you strictly on the basis that it will remain confidential. No part of this report may be (i) copied, photocopied, duplicated, stored or reproduced in any form by any means; or (ii) redistributed or passed on, directly or indirectly, to any other person in whole or in part, for any purpose without the prior written consent of IRSPL.

The information contained in this report is prepared from data believed to be correct and reliable at the time of issue of this report.

IRSPL is not required to issue regular reports on the subject matter of this report at any frequency and it may cease to do so or change the periodicity of reports at any time. IRSPL is not under any obligation to update this report in the event of a material change to the information contained in this report. IRSPL has not any and will not accept any, obligation to (i) check or ensure that the contents of this report remain current, reliable or relevant; (ii) ensure that the content of this report constitutes all the information a prospective investor may require; (iii) ensure the adequacy, accuracy, completeness, reliability or fairness of any views, opinions and information, and accordingly, IRSPL and its affiliates/group companies (and their respective directors, associates, connected persons and/or employees) shall not be liable in any manner whatsoever for any consequences (including but not limited to any direct, indirect or consequential losses, loss of profits and damages) of any reliance thereon or usage thereof.

Unless otherwise specified, this report is based upon reasonable sources. Such sources will, unless otherwise specified, for market data, be market data and prices available from the main stock exchange or market where the relevant security is listed, or, where appropriate, any other market. Information on the accounts and business of company(ies) will generally be based on published statements of the company(ies), information disseminated by regulatory information services, other publicly available information and information resulting from our research. While every effort is made to ensure that statements of facts made in this report are accurate, all estimates, projections, forecasts, expressions of opinion and other subjective judgments contained in this report are based on assumptions considered to be reasonable as of the date of the document in which they are contained and must not be construed as a representation that the matters referred to therein will occur. Past performance is not a reliable indicator of future performance. The value of investments may go down as well as up and those investing may, depending on the investments in question, lose more than the initial investment. No report shall constitute an offer or an invitation by or on behalf of IRSPL and its affiliates/group companies to any person to buy or sell any investments.

The opinions expressed are based on information which is believed to be accurate and complete and obtained through reliable public or other non-confidential sources at the time made (information barriers and other arrangements may be established, where necessary, to prevent conflicts of interests arising. However, the analyst(s) may receive compensation that is based on his/their coverage of company(ies) in the performance of his/their duties or the performance of his/their recommendations. In reviewing this report, an investor should be aware that any or all of the foregoing, among other things, may give rise to real or potential conflicts of interest. Additional information is, subject to the duties of confidentiality, available on request. The report is not a "prospectus" as defined under Indian Law, including the Companies Act, 2013, and is not, and shall not be, approved by, or filed or registered with, any Indian regulator, including any Registrar of Companies in India, SEBI, any Indian stock exchange, or the Reserve Bank of India. No offer, or invitation to offer, or solicitation of subscription with respect to any such securities listed or proposed to be listed in India is being made, or intended to be made, to the public, or to any member or section of the public in India, through or pursuant to this report.

The research analysts, strategists or economists principally responsible for the preparation of this research report are segregated from the other activities of IRSPL. Information barriers and other arrangements have been established, as required, to prevent any conflicts of interests.

The research analysts, strategists or economists principally responsible for the preparation of this research report are segregated from the other activities of IRSPL. Information barriers and other arrangements have been established, as required, to prevent any conflicts of interests.

IRSPL may have issued other reports (based on technical analysis, event specific, short-term views, etc.) that are inconsistent with and reach a different conclusion from the information presented in this report.

Holding of Analysts/Relatives of Analysts, IRSPL and Associates of IRSPL in the covered securities, as on the date of publishing of this report

Research Analyst or his/her relative(s) or InCred Research Services Private Limited or our associate may have any financial interest in the subject company.

Research Analyst or his/her relatives or InCred Research Services Limited or our associates may have actual or beneficial ownership of 1% or more securities of the subject company(ies) at the end of the month immediately preceding the date of publication of the Research Report.

Research Analyst or his/her relative or InCred Research Services Private Limited or our associate entities may have any other material conflict of interest at the time of publication of the Research Report.

In the past 12 months, IRSPL or any of its associates may have:

- a) Received any compensation/other benefits from the subject company,
- b) Managed or co-managed public offering of securities for the subject company,
- c) Received compensation for investment banking or merchant banking or brokerage services from the subject company,
- d) Received compensation for products or services other than investment banking or merchant banking or brokerage services from the subject company

We or our associates may have received compensation or other benefits from the subject company(ies) or third party in connection with the research report.

Research Analyst may have served as director, officer, or employee in the subject company.

We or our research analyst may engage in market-making activity of the subject company.

**Analyst declaration**

- The analyst responsible for the production of this report hereby certifies that the views expressed herein accurately and exclusively reflect his or her personal views and opinions about any and all of the issuers or securities analysed in this report and were prepared independently and autonomously in an unbiased manner.
- No part of the compensation of the analyst(s) was, is, or will be directly or indirectly related to the inclusion of specific recommendations(s) or view(s) in this report or based on any specific investment banking transaction.
- The analyst(s) has(have) not had any serious disciplinary action taken against him/her(them).
- The analyst, strategist, or economist does not have any material conflict of interest at the time of publication of this report.
- The analyst(s) has(have) received compensation based upon various factors, including quality, accuracy and value of research, overall firm performance, client feedback and competitive factors.

IRSPL and/or its affiliates and/or its Directors/employees may own or have positions in securities of the company(ies) covered in this report or any securities related thereto and may from time to time add to or dispose of, or may be materially interested in, any such securities.

IRSPL and/or its affiliates and/or its Directors/employees may do and seek to do business with the company(ies) covered in this research report and may from time to time (a) buy/sell the securities covered in this report, from time to time and/or (b) act as market maker or have assumed an underwriting commitment in securities of such company(ies), and/or (c) may sell them to or buy them from customers on a principal basis and/or (d) may also perform or seek to perform significant investment banking, advisory, underwriting or placement services for or relating to such company(ies) and/or (e) solicit such investment, advisory or other services from any entity mentioned in this report and/or (f) act as a lender/borrower to such company and may earn brokerage or other compensation. However, Analysts are forbidden to acquire, on their own account or hold securities (physical or uncertificated, including derivatives) of companies in respect of which they are compiling and producing financial recommendations or in the result of which they play a key part.

<b>Recommendation Framework</b>	
<b>Stock Ratings</b>	Definition:
Add	The stock's total return is expected to exceed 10% over the next 12 months.
Hold	The stock's total return is expected to be between 0% and positive 10% over the next 12 months.
Reduce	The stock's total return is expected to fall below 0% or more over the next 12 months.
<i>The total expected return of a stock is defined as the sum of the: (i) percentage difference between the target price and the current price and (ii) the forward net dividend yields of the stock. Stock price targets have an investment horizon of 12 months.</i>	
<b>Sector Ratings</b>	Definition:
Overweight	An Overweight rating means stocks in the sector have, on a market cap-weighted basis, a positive absolute recommendation.
Neutral	A Neutral rating means stocks in the sector have, on a market cap-weighted basis, a neutral absolute recommendation.
Underweight	An Underweight rating means stocks in the sector have, on a market cap-weighted basis, a negative absolute recommendation.
<b>Country Ratings</b>	Definition:
Overweight	An Overweight rating means investors should be positioned with an above-market weight in this country relative to benchmark.
Neutral	A Neutral rating means investors should be positioned with a neutral weight in this country relative to benchmark.
Underweight	An Underweight rating means investors should be positioned with a below-market weight in this country relative to benchmark.