

# IRON ORE PELLET INDUSTRY

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**Pellet exports to become unviable with the imposition of 45% export duty; domestic pellet prices could fall by around 30% from pre-duty level**

**JUNE 2022**





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*The imposition of a steep 45% export duty on pellets is a major dampener for merchant pellet players and would render pellet exports unviable at current prices. ICRA expects the gross contribution margins to fall sharply with the anticipated fall in domestic pellet prices.*

*However, the disruption in global seaborne supplies from India and Ukraine could spurt seaborne pellet prices in coming quarters and alleviate the pain of merchant pellet producers to some extent.*



- On May 21, 2022, the Indian Government imposed a steep 45% duty (from nil) on the export of iron ore pellets. Exports accounted for around 15% of the total pellet production in FY2022.



- The recently announced export duty is a major dampener for merchant pellet players and would render exports unviable at current prices. This would adversely impact the pellet capacity utilisation, which is expected to go down below 65% in FY2023 from around 70% in FY2022.



- The sharp decline in the effective FoB price of Indian pellet exports post the duty is likely to result in up to a 30% correction in domestic pellet prices from the pre-duty level.



- Decline in pellet exports would impact iron ore demand and put pressure on prices as ~37% of the iron ore produced in FY2022 was consumed in pellet production. Iron ore fines prices have already corrected by more than 35% from the pre-duty level.



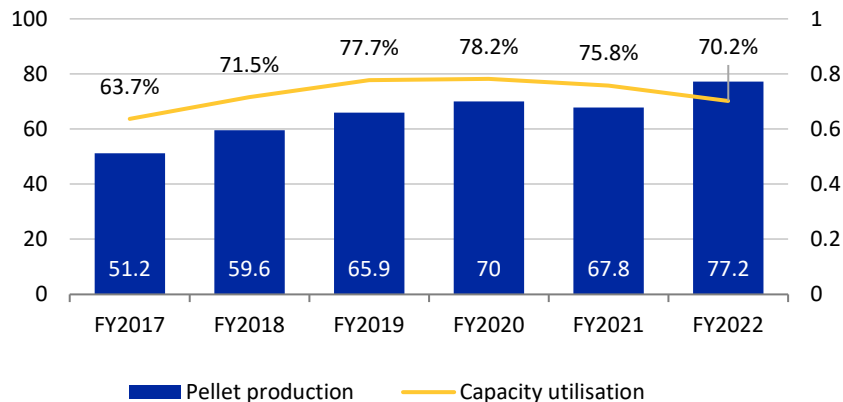
- The gross contribution margins of pellet players are likely to fall sharply with the anticipated fall in domestic pellet prices.



- India and Ukraine accounted for 19% of the total seaborne supplies in FY2022. With exports from India becoming unviable, post the hefty duties and with no end in sight for the Russia-Ukraine conflict, ICRA expects a major disruption in global pellet trade. This could support seaborne pellet prices, going forward, and alleviate the pain of merchant pellet producers to some extent.

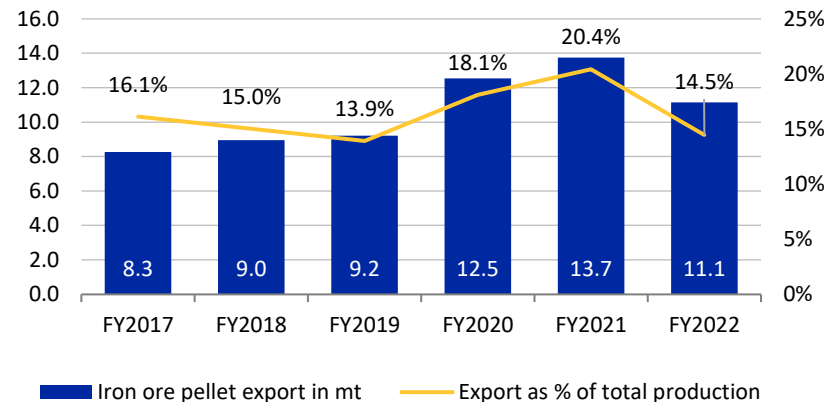
# Export of iron ore pellets to attract 45% duty; production may drop by 10% in FY23

## Trend in pellet production in India



Source: JPC, ICRA Research

## Trend in pellet exports from India

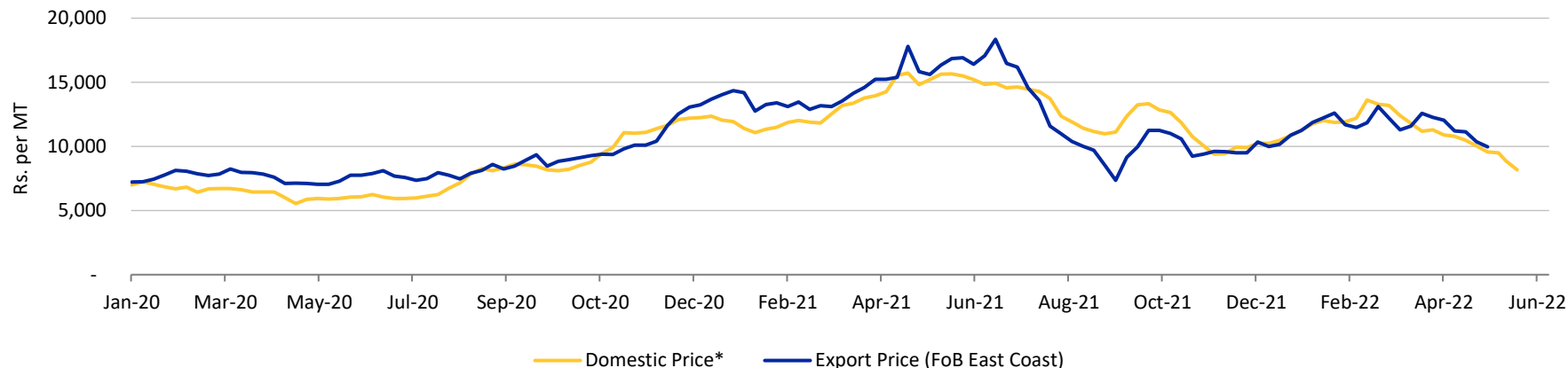


Source: JPC, ICRA Research

- Pellet exports accounted for around 15% of the total production in FY2022.
- This would adversely impact pellet capacity utilisation, which is currently at around 70%. ICRA estimates a 10% drop in domestic pellet production in FY2023 as the domestic market is going through a period of muted demand growth following the duty imposition and is unlikely to absorb the pellet supplies meant for the export market.

# Domestic pellet prices have started to correct as exports become unviable

Exhibit: Trend in domestic and export (FoB east coast) pellet price in Rs. per MT



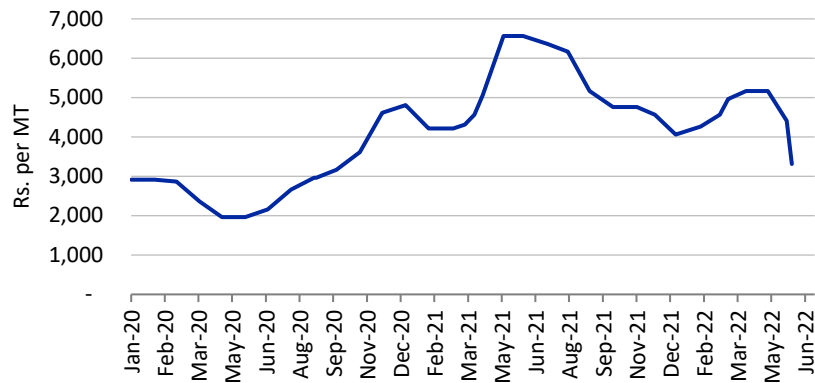
Source: Steelmint; ICRA Research; \*Average domestic price

- The pre-duty FoB export price was \$134 per MT on May 15, 2022. With the imposition of the 45% export duty, the net effective FoB price would be \$92 per MT\*, which is around Rs. 7,100 per MT. This translates into a 30% decline vis-à-vis the pre-duty level. At this price, pellet exports are unviable as the present variable cost for a typical Odisha-based pellet player is around Rs. 6,500 per MT of pellet (explained in slide 6). If the transportation cost from the pellet plant to the port is added to this, the gross contribution would become negative.
- Assuming domestic pellet prices mirror the trend in effective FoB price post duty, ICRA expects a 30% correction in domestic pellet prices from the pre-duty level. The prices have already corrected by more than 20% within a month from the announcement of the revised duty structure and are at around Rs. 7,250 per MT level (63% Fe, Exw-Barbil).

\*The effective FoB price would be (pre-duty FoB price)/(1.45) i.e. 134/1.45

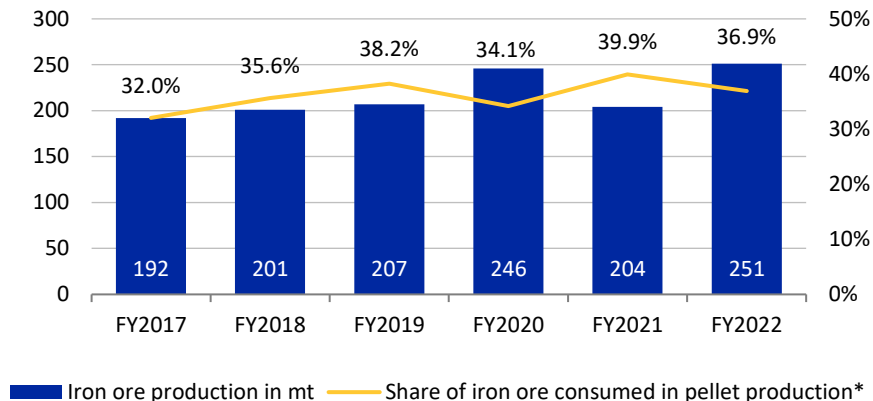
# Iron ore prices have come under pressure as demand from pellet exporters dries up

## Trend in NMDC's 64% Fe iron ore fines price from Chhattisgarh (ex-duties)



Source: NMDC, ICRA Research

## Trend in iron ore production



Source: Steelmint, ICRA Research; \* Assuming 1-1.3 MT iron ore fines required for 1 MT of pellet

- Iron ore is a key raw material for pellet production. One metric tonne (MT) of pellet requires an estimated 1-1.3 MT iron ore, depending on the grade of ore used. Overall, ~37% of the iron ore produced in FY2022 was consumed in pellet production. A decline in pellet production is likely to impact iron ore demand and put pressure on the prices.
- Prices of iron ore fines have already corrected by more than 35% in Chhattisgarh and by ~30% in Odisha following the imposition of export duties on iron ore, pellet and various finished steel products.

# Pellet players' domestic gross margin likely to fall sharply in the near term

## Exhibit: Gross contribution comparison in pre and post duty era

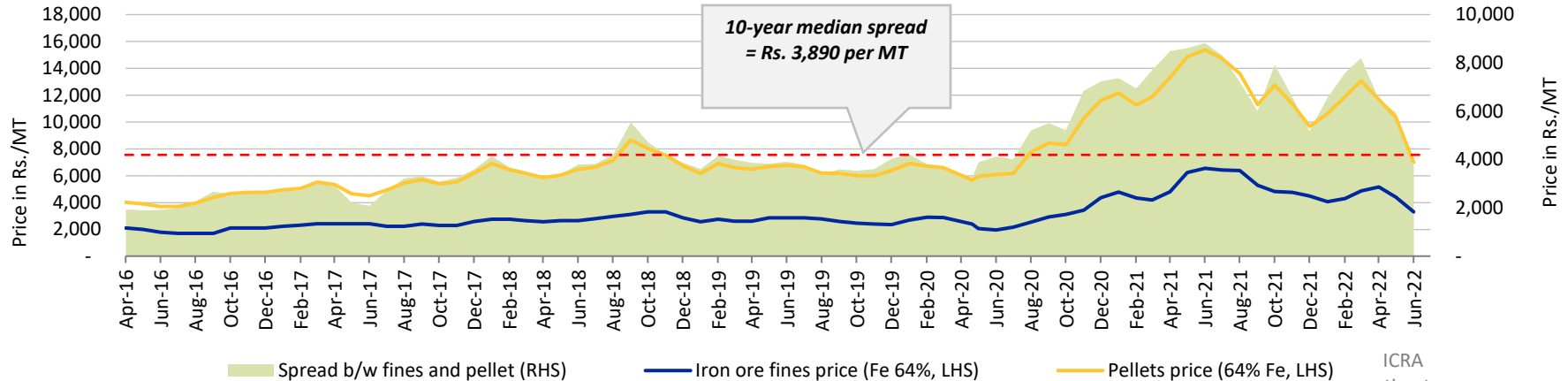
Particulars	Indicator	Unit	Odisha			Chhattisgarh		
			Pre-duty	Current#	ICRA Est~	Pre-duty	Current#	ICRA Est~
Iron ore fines specific consumption	A	MT/MT of pellet	1.1	1.1	1.1	1.0&	1.0	1.0
Iron ore fines price*	B	Rs./MT	5,200	3,550	3,550	5,160	3,310	3,310
Royalty, DMF, NMET	C	% of B	19.8%	19.8%	19.8%	19.8%	19.8%	19.8%
Transportation from mine to plant	D	Rs./MT of ore	500	500	500	1,200α	1,200	1,200
Landed cost of iron ore at plant	E= A*[B*(1+C)+D]	Rs./MT of pellet	7,066	4,991	4,991	7,382	5,165	5,165
Other consumables and power cost	F	Rs./MT of pellet	1,250	1,250	1,250	1,250	1,250	1,250
Total variable cost	G=E+F	Rs./MT of pellet	8,316	6,241	6,241	8,632	6,415	6,415
Domestic realisation@	H	Rs./MT	9,500	7,250	6,300^	10,150	7,880	6,950^
Domestic gross contribution	I=H-G	Rs./MT	1,184	1,009	59	1,518	1,465	535

Source: Steelmint, ICRA Research; #As on June 14, 2022; &This is lower than Odisha as it corresponds to higher grade iron ore fines; \*Prices based on NMDC 64% Fe, 0-5 mm, Bailadila mine for Chhattisgarh and Odisha Index 63% Fe, 0-5 mm for Odisha; ~ICRA estimates - Considering iron ore price to remain at current level and pellet price to fall by around 30% from pre-duty level. αThis is higher than Odisha as pellet plants are located far from the mines; ^This assumes that the fall in domestic pellet prices (vis-à-vis pre-duty level) would be same as the fall in effective FoB price post duty; @Prices based on 63% Fe Exw-Raipur (for Chhattisgarh) and 63% Fe Exw-Barbil (for Odisha)

- Gross contribution levels of Odisha and Chhattisgarh pellet players are likely to fall sharply with the anticipated fall in domestic prices.
- At present, the contribution level for an Odisha-based pellet player is ~15% lower than the pre-duty level. While the present contribution for a Chhattisgarh player is hovering around the pre-duty level due to the recent revision in iron ore fine prices by NMDC, ICRA expects the same moderate to around Rs. 550 per MT in the near term as pellet prices follow suit.

# Spread between iron ore and pellet prices to fall below the long-period median level

Exhibit: Historical trend in spread between iron ore fines and pellet prices

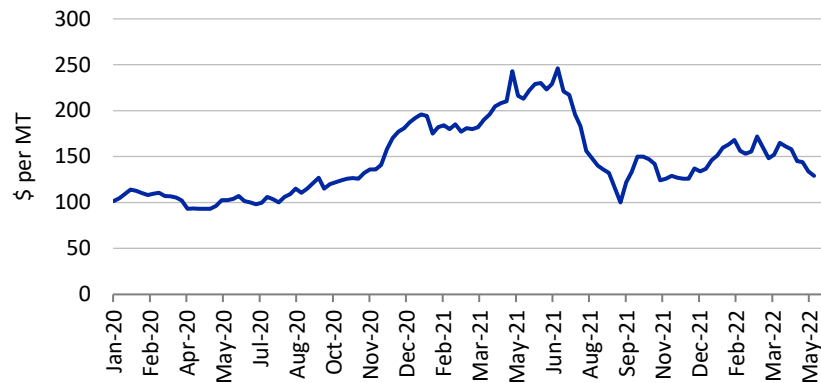


Source: Steelmint, ICRA Research; iron ore prices correspond to NMDC's Bailadila sector in Chhattisgarh; pellet prices corresponds to average domestic price

- The spread between iron ore and pellet prices is a key determinant of the pellet players' profitability.
- A sharp decline in pellet prices, as anticipated, is likely to bring down the spread between iron ore and pellet prices below the through-the-cycle median level to ~Rs. 3,700 per MT for the first time in two years.

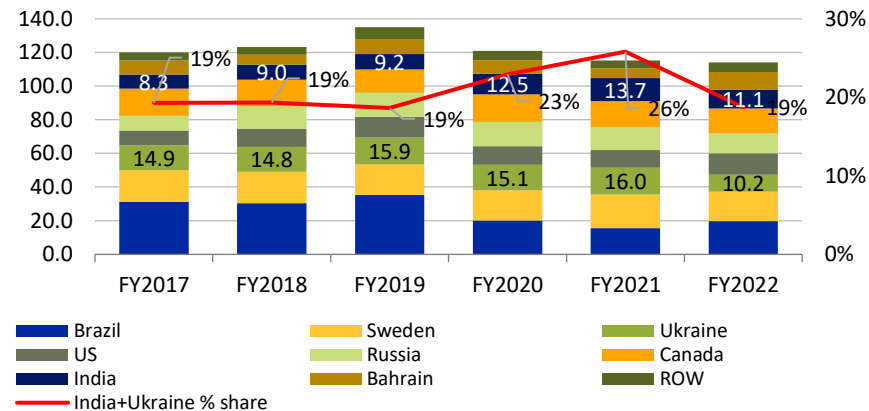
# Seaborne pellet prices could rebound on supply-side shocks from India & Ukraine

Trend in pellet export price, FoB east coast



Source: Steelmint, ICRA Research

Country-wise pellet exports



Source: Steelmint, ICRA Research

- Ukraine was the second-largest pellet supplier in the world, accounting for around 15% of the total seaborne trade in FY2021. However, its ongoing conflict with Russia has impacted pellet supplies, with nil exports from Ukraine in February and March 2022 against 3.1 mt in same period last year.
- With exports from India becoming unviable post the hefty duties and with no end in sight for the Russia-Ukraine conflict, ICRA expects a major disruption in global pellet trade unless Brazil ramps up its pellet production significantly. This could support seaborne pellet prices, going forward.



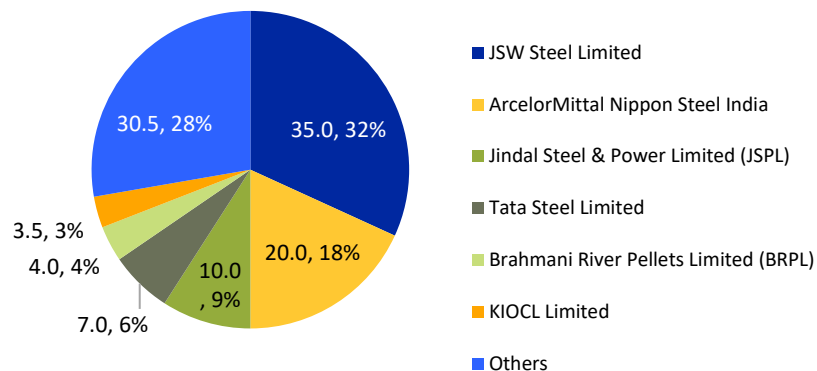
The steep 45% duty would render pellet exports unviable, thereby putting pressure on domestic pellet prices.

ICRA estimates a 30% correction in domestic pellet prices from pre-duty level. This would result in a sharp fall in gross contribution levels of pellet players.

Silver lining for Indian pellet exporters - The disruption in global pellet trade due to the ongoing Russia-Ukraine conflict and unviable exports from India could support the seaborne pellet prices.

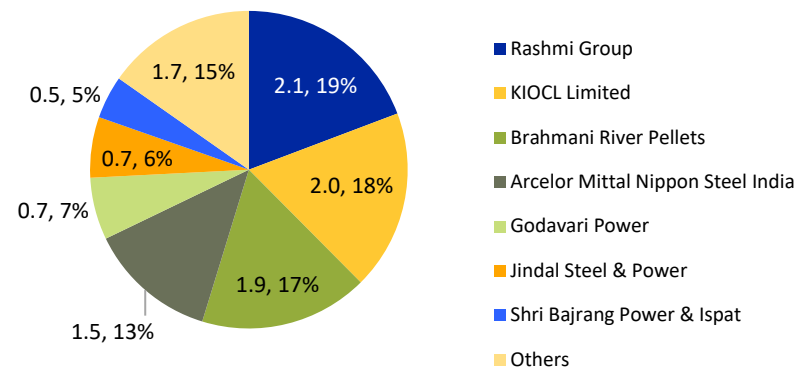
# Indian pellet industry snapshot

Exhibit: Pellet capacities in India in mtpa



Source: Steelmint; ICRA Research

Exhibit: Company-wise pellet export in mt in FY2022



Source: Steelmint; ICRA Research

Exhibit: ICRA-rated pellet companies

Company	Capacity*	Standalone pellet operations	Rating
Brahmani River Pellets Limited	4.0	Yes	[ICRA]A (Stable)
KIOCL Limited	3.5	Yes	[ICRA]AA- (Negative)/A1+
MSPL Limited	1.2	Yes	[ICRA]A+ (Stable)/A1+
Amalgam Steel Private Limited	1.2	Yes	[ICRA]A- (Stable)/A2+

Source: ICRA Research; \*pellet capacity in mtpa



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