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Commodity Trade Balance in Iran's Iron and Steel Markets



انجمن تولیدکنندگان و صادرکنندگان سنگ آهن ایران
IRON ORE PRODUCERS & EXPORTERS ASSOCIATION OF IRAN

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- 1 What Quality and Quantity of Iron Ore is being produced in Iran?
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- 3 Where are Pellets Imports likely to come from to cover the Short Term Short Fall?
- 4 Where are Lump, Fines and Concentrate currently being Exported to?
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What Quality and Quantity of Iron Ore is being produced in Iran?

Iran Iron Ore Production by Sector

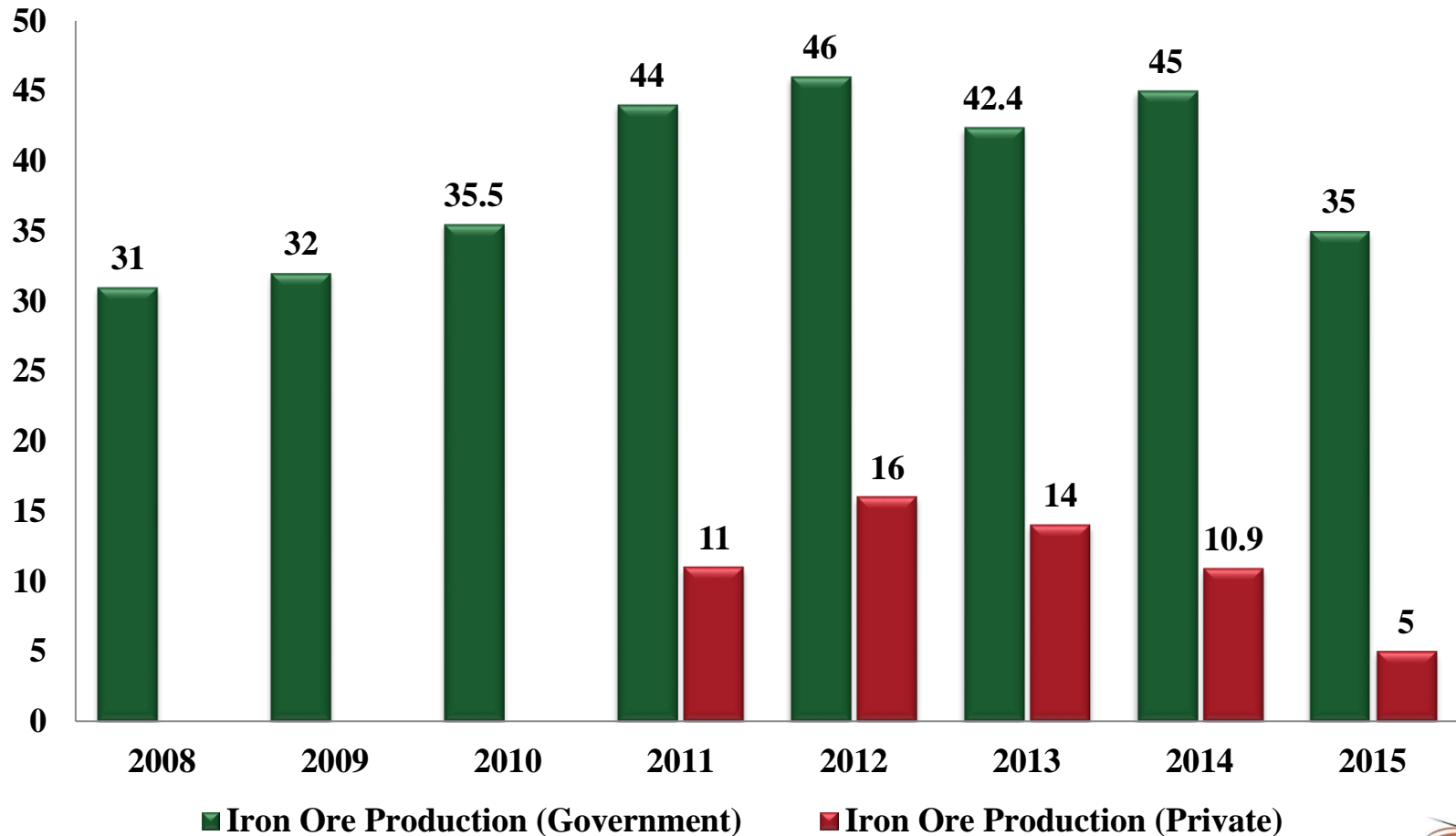


Figure 1: Iran Iron Ore Production by Sector

Steel Value Chain Upstream Capacity

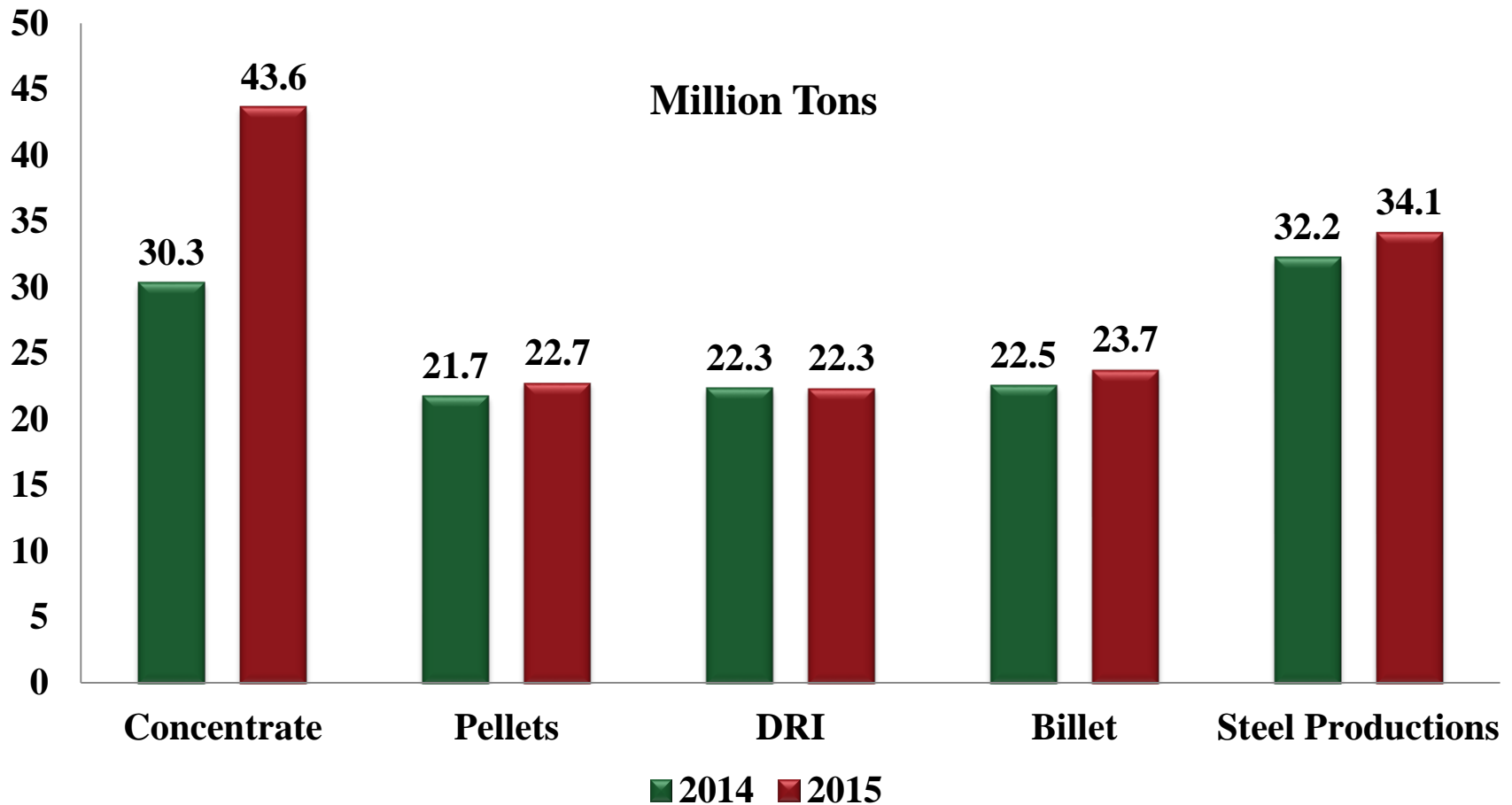


Figure 2: Steel Value Chain Upstream Capacity 2014 - 2015
Source: Iran Steel Comprehensive Plan, Foolad Technic Co.

Steel Value Chain Upstream Production

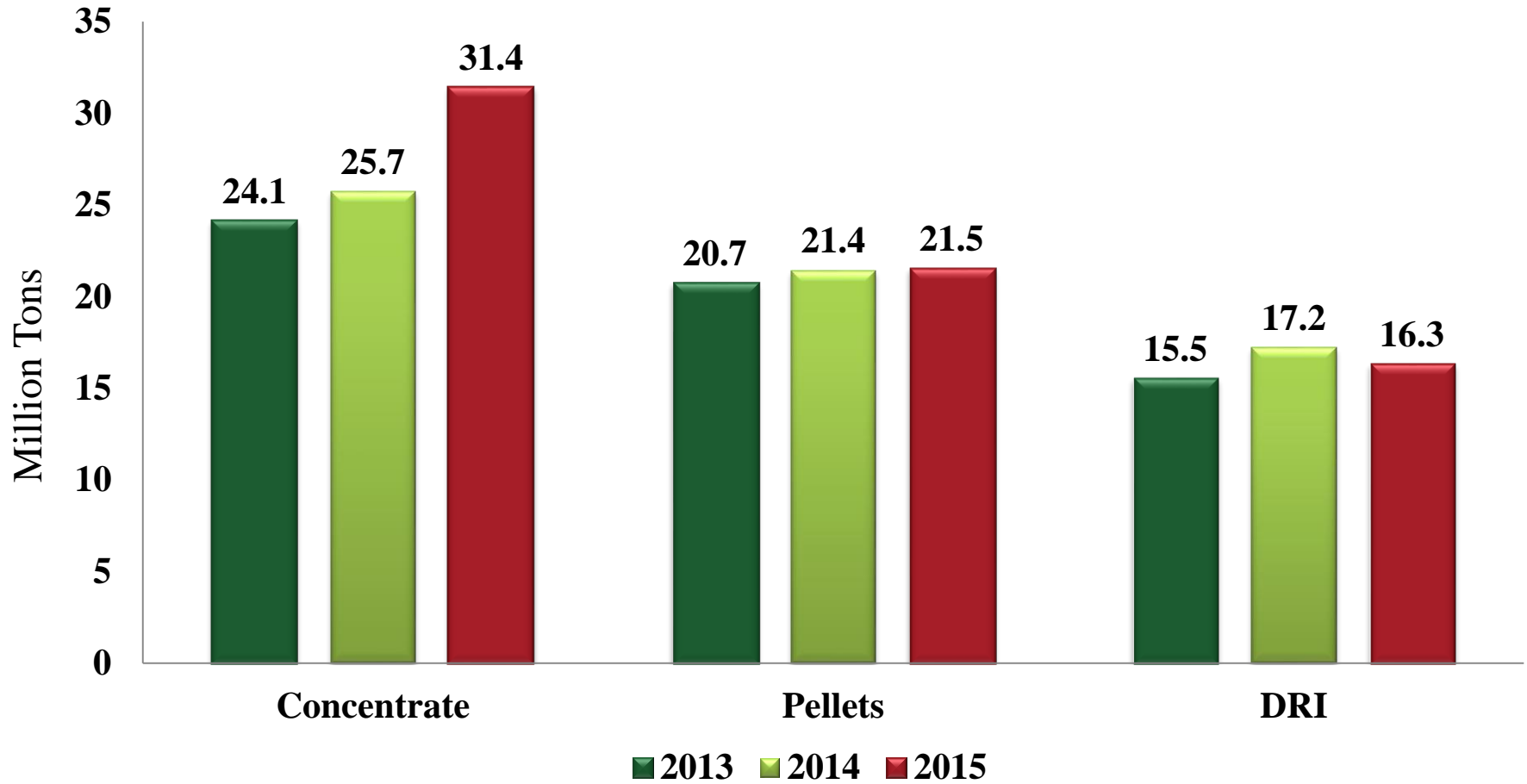


Figure 3: Steel Value Chain Upstream Production 2013 - 2015

Source: Iran Steel Comprehensive Plan, Foolad Technic Co.

Steel Value Chain Upstream 2016 vs. 2015

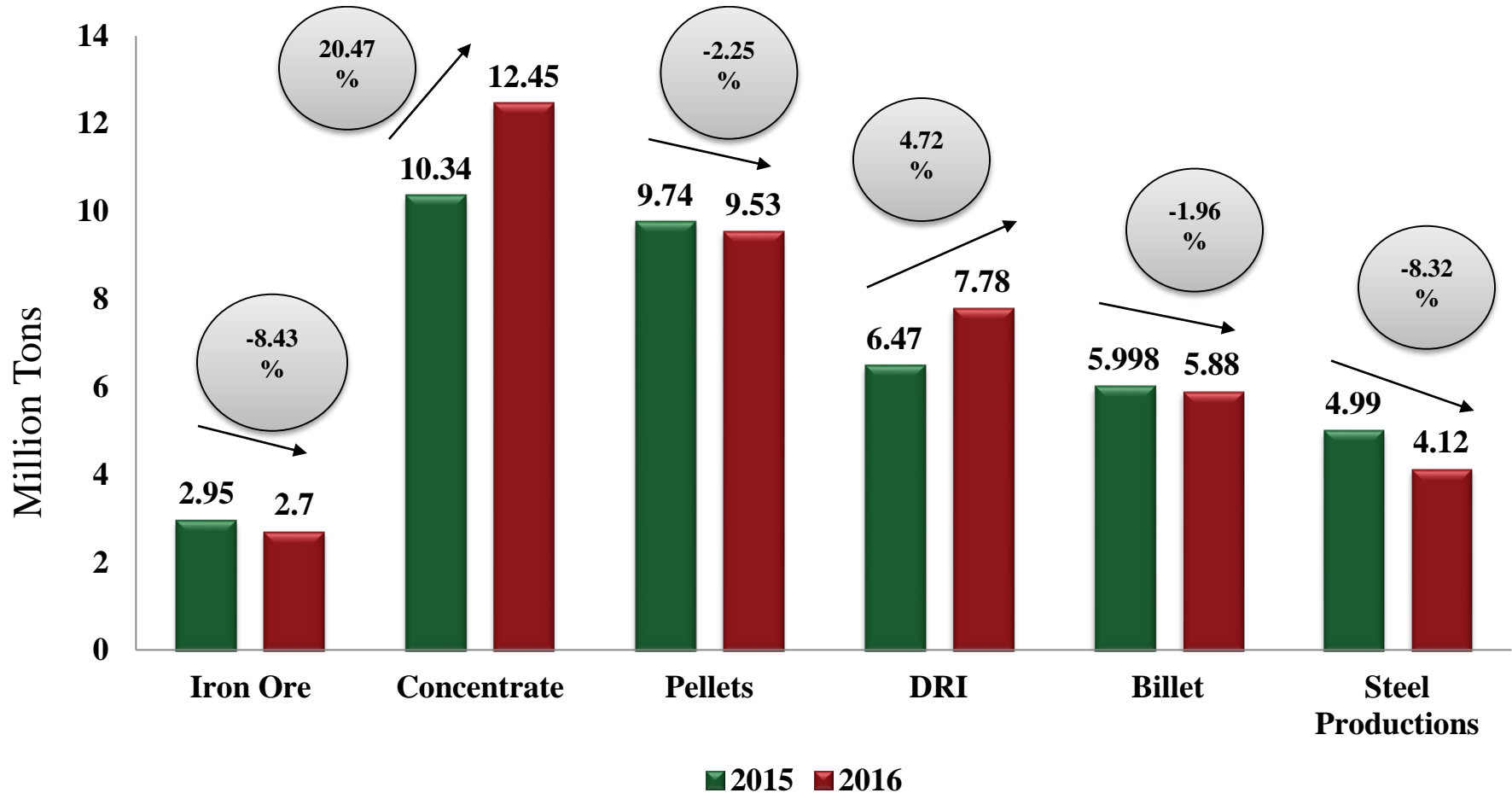


Figure 4: Steel Value Chain Upstream 2016 vs. 2015
(from March to August)



**To what extent are Beneficiation
and Refining required?**

How Much Iron ore?

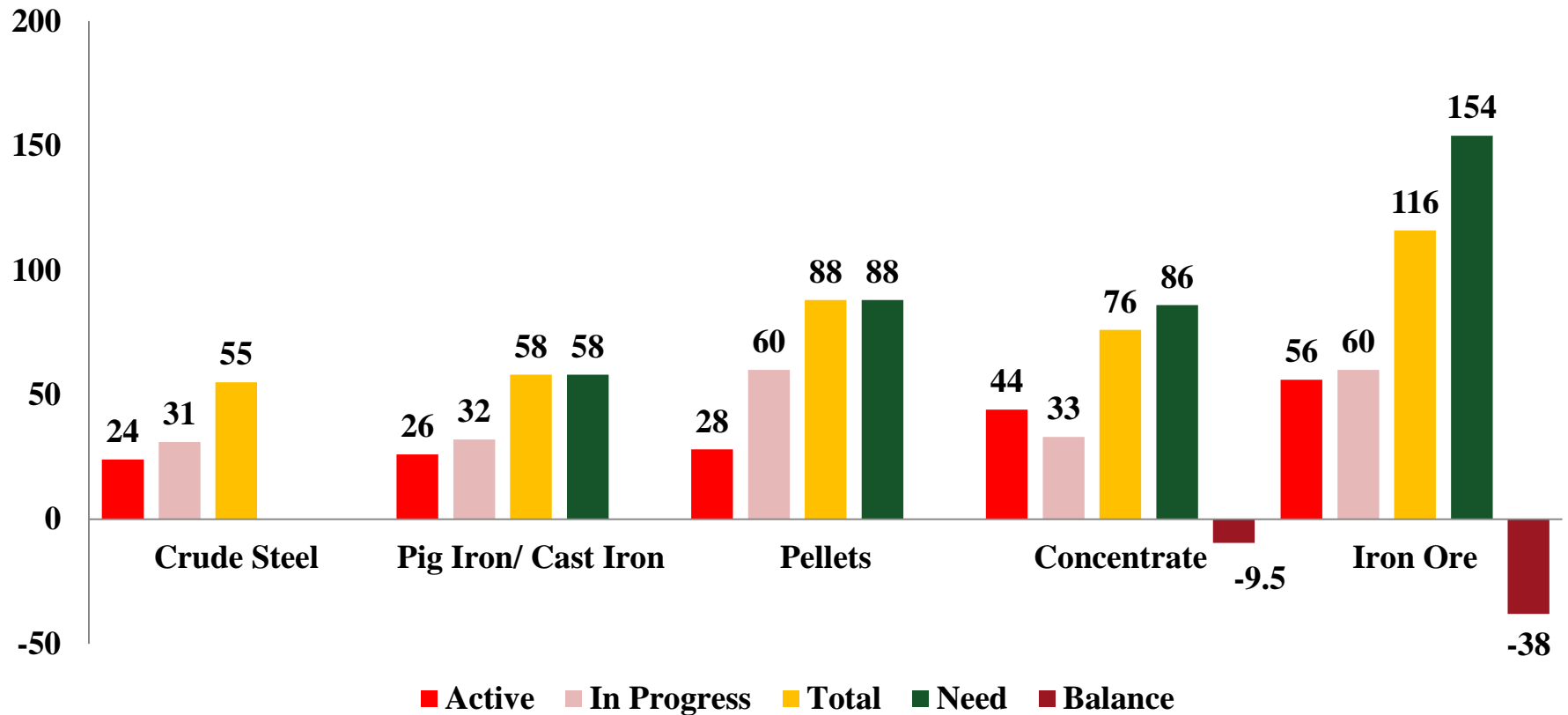


Figure 5: Steel Value Chain Requirements

Source: Iran Steel Comprehensive Plan, Foolad Technic Co.

Iran Iron Ore Reserve

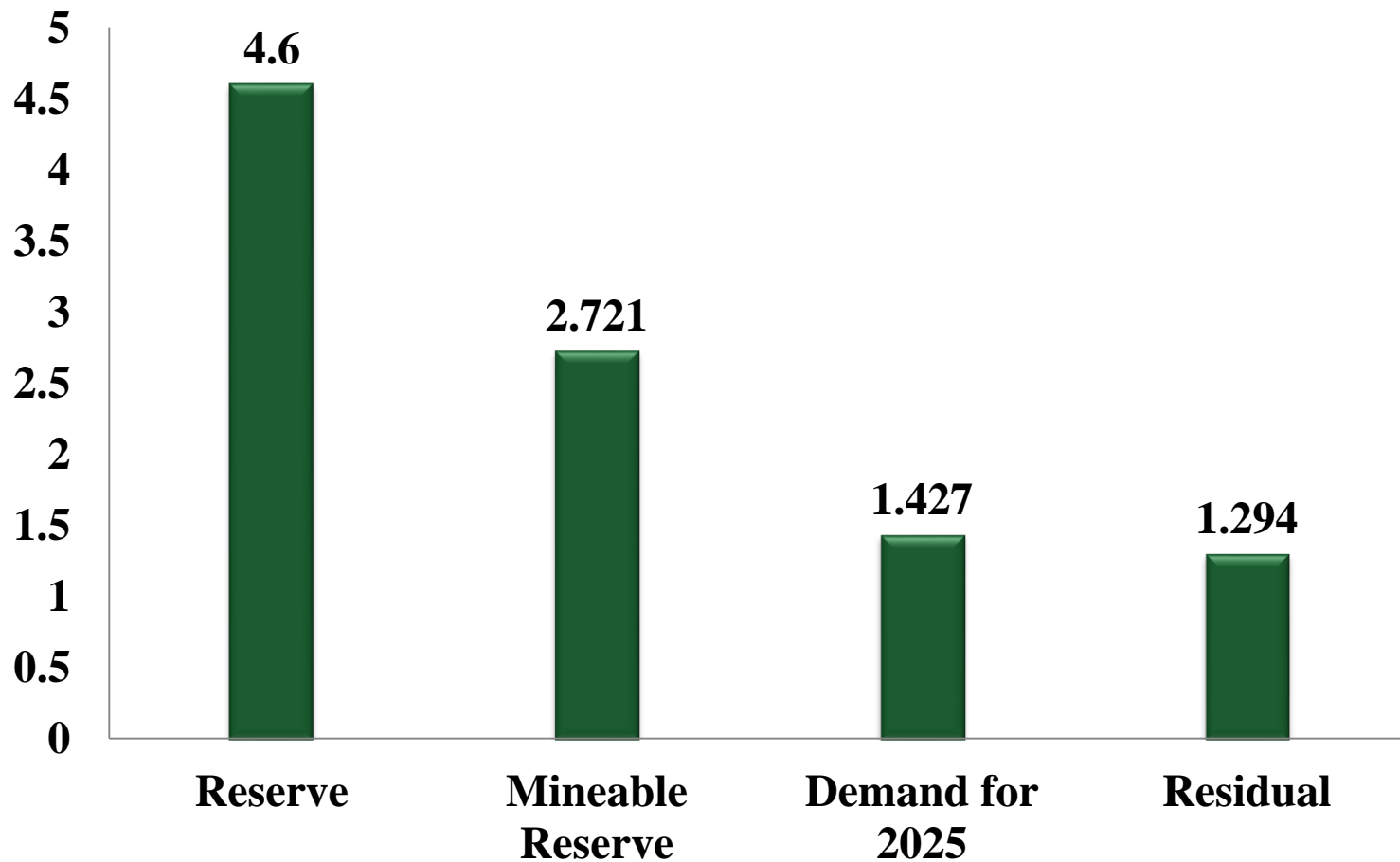


Figure 6: Iran Iron Ore Reserve



Iran Pellets Quality and Quantity

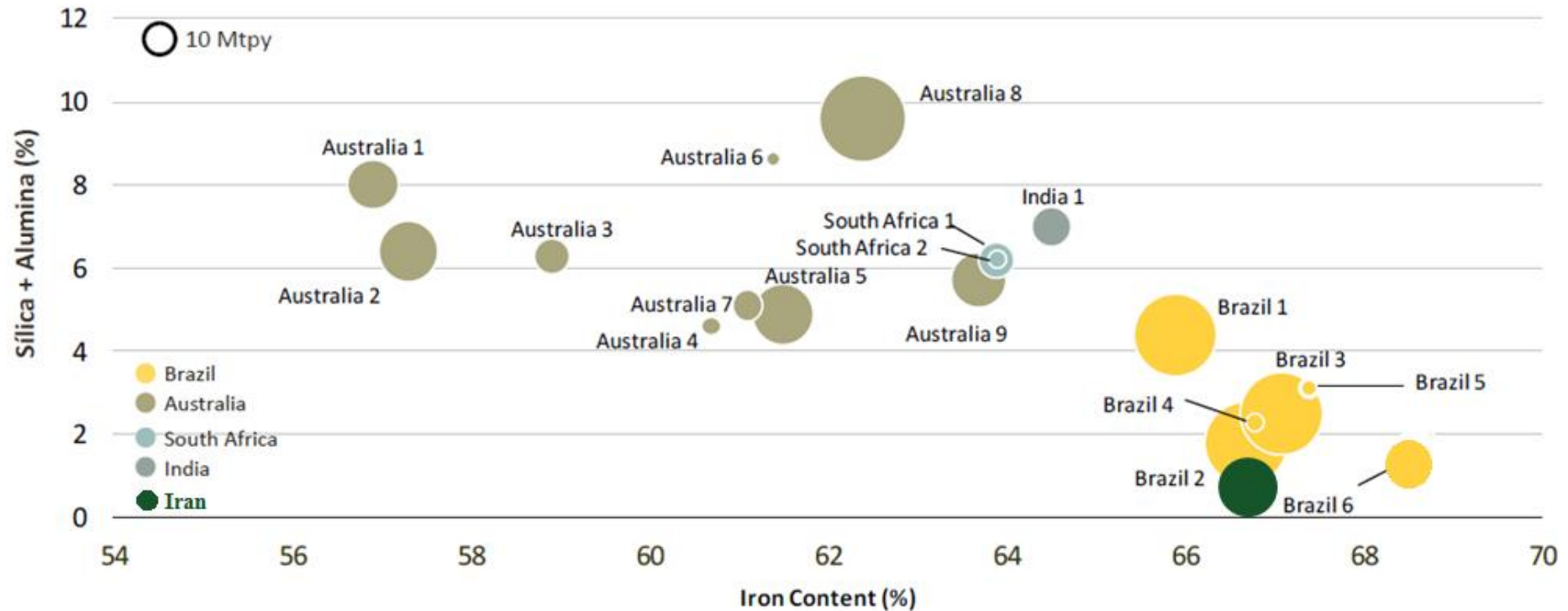


Figure 7: Iran Pellets Quality and Quantity

Iran New Pellets Facilities

| No. | Activity | Production Capacity (Mt) | Cumulative Physical Progress (2016) |
|-----|--------------------------------------------------------------------|--------------------------|-------------------------------------|
| 1 | Gole-Gohar (Pelletizing Plant) | 5 | 95 % |
| 2 | Foolade Sirjan Iranian (Pelletizing Plant) | 2.5 | 92.7% |
| 3 | Foolad Khorasan (Pelletizing Plant) | 2.5 | 86% |
| 4 | Sangan Iron Ore and Steel Co. (Pelletizing Plant) | 5 | 79.63% |
| 5 | Madkoosh (Pelletizing Plant) | 2.5 | 75.4% |
| 6 | Opal Parsian, Sangan Industrial and Mining Co. (Pelletizing Plant) | 5 | 54.75% |
| 7 | Foolad Shargh Kaveh Co. (Pelletizing Plant) | 2.5 | - |
| 8 | Foolad Botia Iranian (Concentration Plant) | 2.5 | 83.5% |
| 9 | National Development Co. (Concentration Plant) | 2.5 | 60.42% |
| 10 | Sabanour (Concentration Plant) | 0.675 | 57.2% |
| 11 | Foolad Shargh Kaveh Co. (Concentration Plant) | 2.5 | 27.26% |
| 12 | Sangan Iron Ore and Steel Co. (Concentration Plant) | 5 | 21.80% |

Table 1: Iran Iron Ore Concentration and Pelletizing Plants



**Where are Pellets Imports likely to
come from to cover the Short Term
Short Fall?**

Pellets Consumer in the Region

Project Location

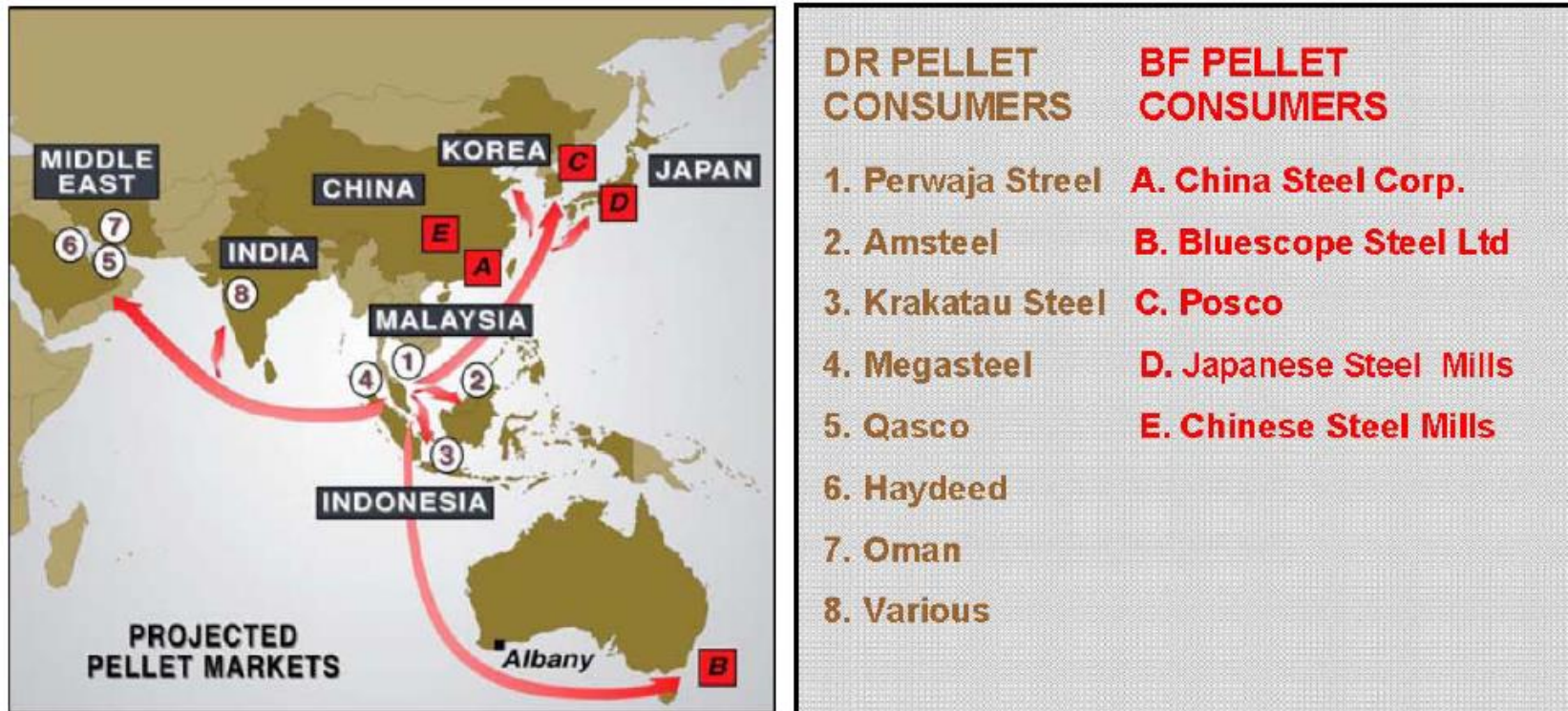


Figure 8: Pellets Consumer in the Region

Iran Pellets Import

- Essar Steel, having largest capacity of pellet production in India (6 Mt at Paradip and 8 Mt at Vizag), played major role in Indian Pellets export to Iran in 2014 and in 2015.
- Essar Steel ships high grade of Pellets (Fe 66%) to Iran.
- In 2014, out of the total Pellets exported from India, 70% (0.60 Mt via 12 shipments) was shipped to Iran in which Essar Steel was the largest exporter at 0.51 Mt via 10 shipments. The 1st cargo shipped on 07-Apr-14.
- In 2014, total 8 shipments and in 2015, total 10 shipments have been made to Iran. It means total 895,700 MT has been exported via 18 shipments up to 26-Jun-15 to Iran.

Iran Pellets Import

- From the beginning last Iranian Year (21st March, 2015), Iran removed export duty of iron ore concentrate and it's export started by Gol-e-Gohar Mining & Industrial Co. regularly.
- Then some negotiations have been happened in mid 2015 to export Gol-e-Gohar concentrate to KIOCL (Kudremukh Iron ore Company) to convert it to Pellets and import it again to Iran. It was likely a conversion concept, but the business didn't happen due to some payment limitations.

Iran Pellets Import

- KIOCL, which is strategically located at New Mangalore on the west coast of India, can serve Iran with least logistic cost.
- Finally 1 shipment of Pellets around 66,500 Mts has been supplied and shipped by KIOCL on 02-Jan-16. The grade of imported Pellets was 67%.
- The source of concentrate was from Minas- Rio Iron Ore Mine of Anglo American in Brazil.
- The above was the last imported Pellets shipment to the country.

Where are Lump, Fines and Concentrate currently being Exported to?

Iran Iron Ore Export

M Tone

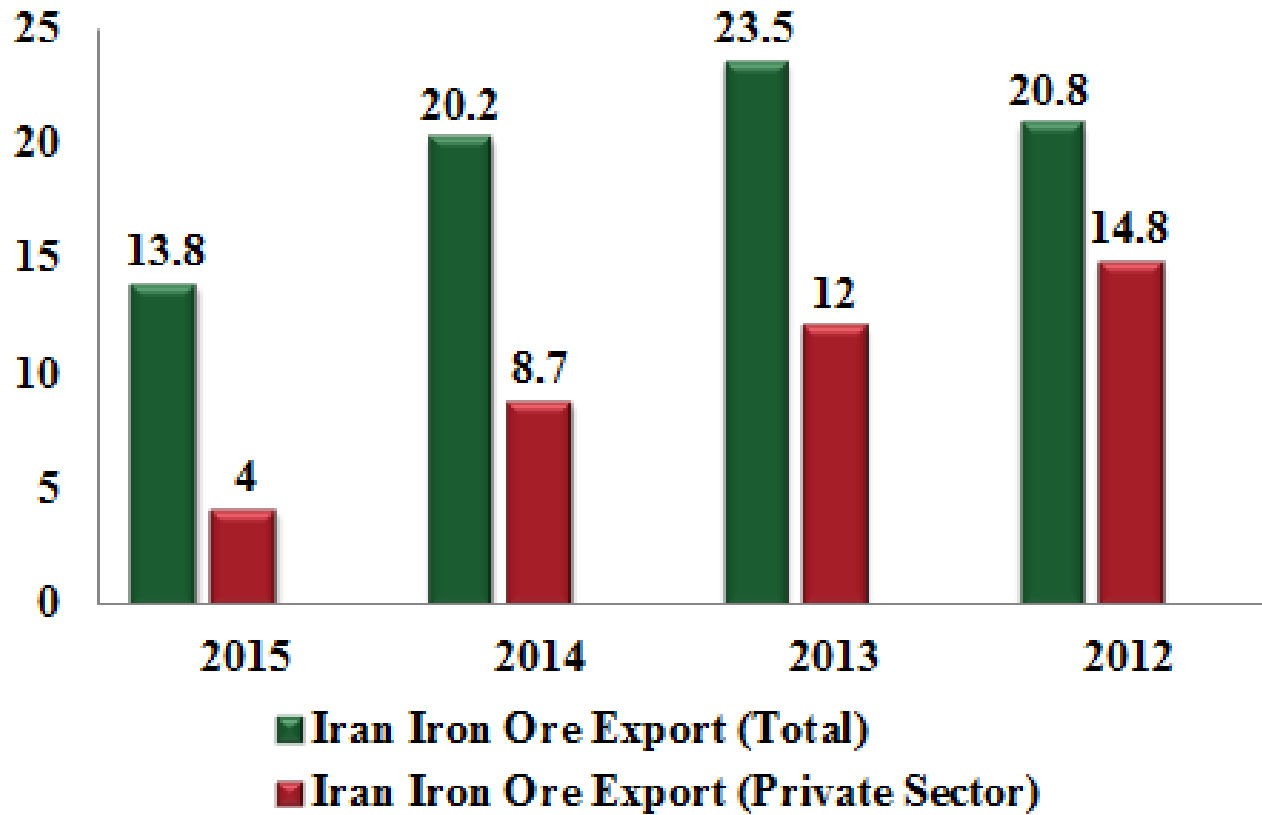


Figure 9: Iran Iron Ore Export



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Iran Iron Ore Export

| (March to August 2016) | Volume (Million Ton) | Value (USD Million) |
|---------------------------|-------------------------|------------------------|
| Iron Ore Export | 7.329 | 287 |
| Volume Growth Rate | 67 % | - |
| Value Growth Rate | - | 83% |

Iron Ore Contribution in Iran Export in 2015: 7.4 %

Table 2: Iran Iron ore Export from March to August 2016 (8 months)

Iran Iron Ore and Concentrate Export

| Country | Iron Ore & Concentrate Export (%) 2015+2016 |
|-----------------------|------------------------------------------------------------|
| China | 91% |
| Turkmenistan | 1.40% |
| UAE | 1.30% |
| Iraq | 1.20% |
| Pakistan | 1.00% |
| Turkey | 0.80% |
| Qatar | 0.60% |
| Czech Republic | 0.50% |
| Slovenia | 0.40% |
| India | 0.30% |
| Germany | 0.30% |
| Tajikistan | 0.20% |
| Armenia | 0.20% |
| Azerbaijan | 0.10% |
| Ukraine | 0.10% |
| South Africa | 0.10% |

Table 3: Iran Major Export in 2015 and 2016
(Source: Iran's Customs, 2016)

Status of Iran Iron Ore Export to China

| Year | Iron Ore Exported to China (Million Tons) | Average Iron Ore Export Price USD/T |
|------------------------------|-------------------------------------------|-------------------------------------|
| 2013 | 23.5 | 106 |
| 2014 | 20.2 | 86 |
| 2015 | 13.8 | 44 |
| JAN – AUG 2016 (8 Months) | 10.6 | 50 |

Table 4: Iran Iron Ore Export to China





Conclusions

Conclusions

- Due to reducing domestic steel consumption as well as starting 3 new projects of Pelletizing Plant by Gol-e-Gohar, Foulad-e-Sirjan Iranian and Sangan Iron Ore Companies, Iran becomes self-sufficient for importing Pellets anymore. The capacities of above projects are 5, 2.5 and 5 Million Tons, respectively.
- Both Gol-e-Gohar and Foulad-e-Sirjan Iranian fresh 7.5 Million Tons Pellets production come to the stream earlier than Sangan, during Q4 of 2016 and Q1 of 2017.

Conclusions

- Iran is planning to continue export of iron ore during the Q4 of 2016 and Q1 of 2017.
- Iran is studying to stop exporting of Iron Ore Fines & Lump from the beginning next Iranian Year (from 21/03/17 onwards), and just continue to export value-added products such as concentrate.
- Upon getting government approval to remove export duty of Pellets 15%, even there is chance that Iran start exporting 1-2 Million Tons Pellets by the beginning next Iranian Year. (from 21/03/17 onwards).



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Thank You

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