



Operating Context, Risks and Opportunities

Tata Steel's long-term strategy takes into account the challenges faced by the Company and the opportunities it needs to leverage for value creation.

Brownfield expansion

The 2.9 mtpa brownfield expansion is the largest ever expansion undertaken at the Jamshedpur Works, taking the capacity of the Jamshedpur facilities to 9.7 mtpa.

The expansion project involved setting up of facilities, including a 3.05 mtpa capacity 'I' Blast Furnace, a 2.4 mtpa Thin Slab Casting and Rolling Facility (TSCR), two Coke Oven batteries each with a capacity of 0.7 mtpa, a 6 mtpa Pellet plant, a Linz-Donawitz (LD) Basic Oxygen converter and a Lime Calcining plant.

The 'I' Blast Furnace achieved rated capacity in 24 days with 94% availability in the first month. The furnace is currently producing at 9,000 tonnes per day (tpd) corresponding to 3.15 million tonnes annualised with a headcount of 115 employees making it one of the most productive plants in the world. The performance of the earlier 'H' Blast Furnace has been bettered by 'I' Blast Furnace on all counts (Figure 1).

LD3 TSCR is the third steel melting shop at the Jamshedpur works and the second dedicated to Flat Products. A unique feature of this steel melting shop is that it integrates a Thin Slab Caster and a Rolling mill (a new energy efficient 'Compact Strip Processing' technology) with the upstream LD3 steel making facility. The first strand was commissioned in February 2012 and the two strand operations started working simultaneously from the beginning of December 2012.

In Financial Year 2012-13, the TSCR plant achieved 1 million tonnes of slab production, registering higher yield and producing higher value products (Figure 2).

Ramp up of the 'I' Blast Furnace:

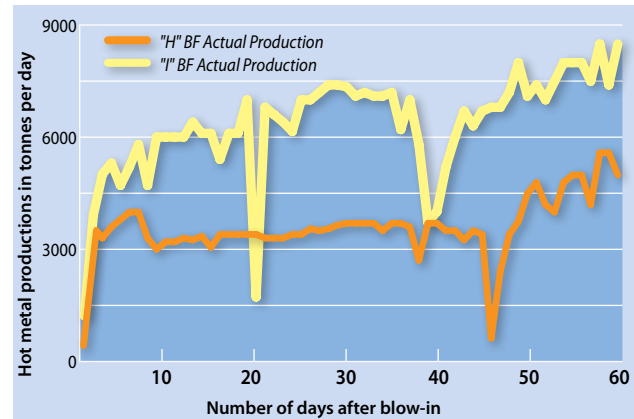


Figure 1

The monthly production at TSCR in Financial Year 2012-13:

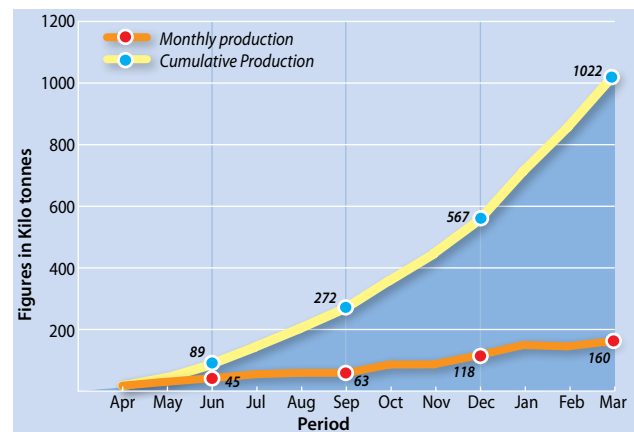


Figure 2



Brownfield expansion "I" Blast furnace, Jamshedpur, India

The 6 mtpa Pellet Plant will enable the Company to use extra-fine iron ore as the feed after beneficiation rather than scarce lumps, resulting in improved Blast Furnace productivity, due to increased percentage of agglomerate in the Blast Furnace burden. As mineral resources are scarce and exhaustible, the Company is continuously working to increase the life of its existing mines by improving productivity and enhancing its capabilities to mine and process inferior ores.

The increase in capacity without the proportionate increase in manpower is set to improve labour productivity on a per tonne basis. The raw material capacity augmentation in the mines, ensured that the additional production was integrated with iron ore, eliminating the possibility of relying on external sources in an already constrained iron ore market, following closure of mines in India's mineral rich states.

Greenfield project

Tata Steel's greenfield project in Odisha is currently under construction. The first phase is likely to go into production by the end of the Financial Year 2014-15.



Greenfield project – Kiln 2, Odisha, India



OPERATING CONTEXT, RISKS AND OPPORTUNITIES

Setting up the project will benefit the further development of the local community and society. A training centre has been set up for up-skilling some of the people in the local community. A large local community has also evolved into successful entrepreneurs assisting others by providing gainful employment. Women are empowered through self help groups set up by the Company, enabling them to earn a living.

Designed to deliver value added steel for different applications, the project will enable development of a wider range of products for the Company that can cater to advanced applications.

Global Wires Business

The Global Wires Business (GWB) of the Company is one of the largest wire manufacturers in the world. It operates as a separate profit centre within the Group. GWB comprises Tata Steel's Wire Division in India, Siam Industrial Wire in Thailand and Lanka Special Steels Limited in Sri Lanka. GWB in Financial Year 2012-13 recorded revenues of USD 496 million on sale of 535 kt.

In Financial Year 2012-13, Global Wires through Siam Industrial Wire entered into a 60:40 joint venture with Nichia Steel Works, Japan. The joint venture "TSN Wires Co. Ltd" is in the process of setting up a 36,000 tpa greenfield plant at Rayong in Thailand for the manufacture of premium galvanised and aluminium coated steel wires. The products made at TSN Wires will be sold in Thailand, the ASEAN region and Oceania markets.

Tata Growth Shop

Tata Growth Shop (TGS) is a multi disciplinary engineering complex that designs and manufactures heavy engineering and material handling equipment including special purpose Electric Overhead Travelling Cranes. The manufacturing unit is situated in Gamharia, near Jamshedpur, spread over more than 350 acres.

TGS provides in-house design and manufacturing capability and contributes to the capital projects of the Company, notably, projects associated with the brownfield expansion at Jamshedpur. The various jobs executed by TGS for the 3 mtpa expansion project are as follows:



Wires produced in India



Growth shop at Gamharia, India

- Designed, manufactured, erected and commissioned various equipment, EOT cranes, industrial structurals.
- Completed and handed over Lime Calcination Plant on EPC basis.
- Erected and commissioned Ladle Furnace and Hot Metal Desulphurisation plant.

This novel business model led to changes in the cost structure, combined with leveraging channel capabilities to the maximum, to generate operating profits. Today the brand 'Tata Agrico – a bond of trust' has captured the mindshare of its customers.

Execution of the above work by TGS has resulted in savings of ~₹ 100 crores through innovative solutions in both design and strategic procurement. TGS is now involved in the fabrication of the structurals and equipments for the Odisha project on a much larger scale and is poised to move up the value chain with enhanced product offerings.

Agrico

The Agrico division has been in operation since 1923-24 and owns one of the oldest Tata brands to reach the Indian households–Tata Agrico. The product range includes Hoes, Sickles, Crowbars, Shovels, Pick Axes, Hammers and others. Tata Agrico has played a major role in developing agricultural implements which are much easier to use and provide better value to Indian farmers. The Agrico division of Tata Steel follows a unique model of not having its own manufacturing facilities but outsourcing its entire product range to external processing agents.



Tata Steel supplies agricultural equipment

