

Karnataka – An open door for global steel producers

The State of Karnataka in South-West India has attracted proposals for steel projects totaling up to 57Mt/y capacity and worth \$55bn in investment in the past two years as a result of the active support of the State government, delays in approving projects by the competing states of Orissa, Jharkhand and Chhattisgarh, and because of its substantial ore deposits.

By Dilip Kumar Jha*

KARNATAKA – a mineral rich state in South West India – has emerged as a preferred destination for global steel majors. Through its fast clearing one-stop system for investors, the state government has cleared as many as 166 projects for steel and raw materials in the past two years. According to an official with the state's mining department, the government has successfully attracted investment proposals worth over INR 2500bn (\$55.3bn) in this period. Tempted by the huge growth prospects of steel demand in India due to the Federal government's extended focus on infrastructure in the country, global steel majors including ArcelorMittal, Posco and Severstal have stated interest in setting up steel plants in Karnataka.

Besides easy access to the mineral resources required for steelmaking, the state offers geographical advantage for steel exporters. Karnataka is bordered by the Arabian Sea to the west and has 11 ports in all. The state has one major port - the New Mangalore Port - and 10 minor ones for shipping activities worldwide. All these have large investment plans for infrastructure upgrading and hence, huge potential for steel consumption locally. To the north lies the state of Maharashtra with India's business capital, Mumbai. Karnataka covers an area of 191976km² or 5.83% of the total geographical area of India. It is the eighth largest Indian state by area, the ninth largest by population. Bangalore is the state capital.

Presently the State boasts a 3Mt/y integrated works owned by JSW (Jindal South West Steel) and a tube and pipe works owned by Jindal SAW.

Mining facts

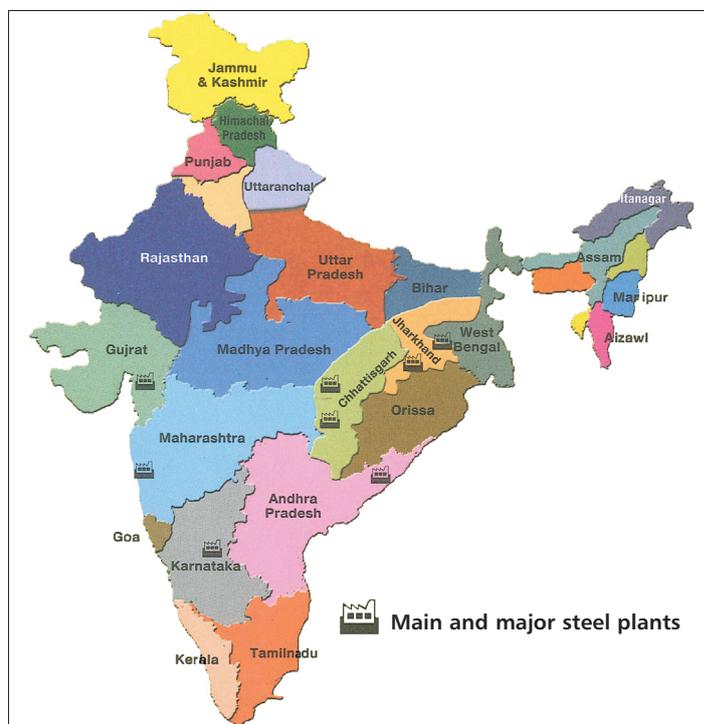
According to the Geological Survey of India, Karnataka has iron ore reserves of 8277.5Mt constituting 16.5% of India's total reserves. The state has huge resource base of magnetite ore (87% of the State total) in the Western Ghats, but mining here is presently banned due to the enactment of Coastal Regulation Zone Act. Therefore, most of the iron ore mining takes place for hematite ore in the districts of Bellary, Chitradurga and Tumkur. With this large resource base, the state produces around 40Mt of iron ore of which 70% is in the form of fines and 30% lump. This is about one-fifth of India's production. Karnataka had been exporting about 30Mt of ore each year, one-third of the total iron ore shipment from the country (Table 1). The state imposed a ban on iron ore exports in July 2010, but this was lifted in April 2011 following a decree from the Supreme Court. Prior to the ban, in the first four months of the last financial year (April 2010 – March 2011), exports amounted to 7.41Mt.

The iron ore mining industry has been on the

*Correspondent in India

Existing major steel plants and states of India

Pic courtesy Joint Plant Committee



Year	Value
2002-03	15.24
2003-04	20.93
2004-05	44.80
2005-06	59.20
2006-07	87.91
2007-08	101.97
2008-09	72.75
2009-10	46.93
2010-11 (April - Sept)	19.10

Table 1 Value of minerals trade (INR billion)

fast track of growth in recent years due to high demand from the global market especially from China. A rapidly growing demand from the domestic market has shown a need to expand mining activities beyond the current level.

The state has primarily four mineralogical types of iron ore resources: magnetite (Fe₃O₄), hematite (Fe₂O₃), titaniferrous magnetite (Fe₂O₃ with admixed TiO₂ and/or V₂O₅ impurities) and goethite and limonite (hydroxides of iron and aluminum). Karnataka is primarily known for high grade iron ore. Japanese steel major Nippon Steel and two South Korean steel majors import high grade iron ore from the public sector owned National Mineral Development Corporation (NMDC) in

Karnataka. Bellary-Sandur-Hospet is the epicenter for high grade iron ore mining in the state. Total iron ore reserves of Bellary-Sandur-Hospet sector has been conservatively estimated at around 1000Mt, but in reality it could be double this if deeper unexplored ores are included (Table 2).

The State initiative

The Bharatiya Janata Party - led state government took a bold step in July 2010 to ban iron ore exports from its territory to protect interest of the proposed steel manufacturers arguing that the reserves will be exhausted if exports continue. Although the Supreme Court of India (SC) has now ordered the government to re-start shipment of iron ore, investors are assured that the local government will extend all possible help to attract steel plants to the State. The state government also facilitates land acquisition for steel projects and offers adequate incentives to landowners. Since the SC has already ordered closure of 19 mines that were together excavating 2Mt/y of ore illegally, the state government assures developers that the mining lease of these mines will be canceled in favour of new domestic steel projects. The state government is also working on plans to provide mining leases to steel to give adequate iron ore reserves to producers. Land acquisition will not

Type of iron ore	Reserves (kt)			Total Reserves	Remaining Resources	Total Resources
	Proved (1)	Probable(2+3)				
	STD111	STD121	STD122			
Hematite	394839	25865	107263	527967	620357	1148324
Magnetite	202125	-	18375	220500	7663347	7883847
Total	596964	25865	125638	748467	8283704	9032171

Note 1: STD111 Proven reserves certified by GSI

Note 2-3: Est from boreholes in mine not certified

Table 2 Ore reserves in the Bellary-Sandur-Hospet sector

be a problem in Karnataka, unlike Orissa and Jharkhand – the other two top mineral rich states in India – where global steel majors such as Posco and ArcelorMittal have been struggling to set up steel production units, said an official with the state steel ministry.

Mega steel projects

Karnataka's transparent and investor-friendly industrial policy coupled with the allocation of free mineral locations awarded to steel companies has resulted in proposals for up to 57Mt/y of capacity in the past two years. Several 6Mt/y projects have been put forward (Table 3).

6Mt/y steel projects are proposed by ArcelorMittal and Posco. The two companies combined have proposed an investment of INR 600bn (\$13.3bn). In addition, India's Essar Steel is investing INR 220bn (\$4.8bn) to setup a 6Mt/y capacity carbon steel plant at Bagalkot. The group also plans to setup a 2000MW gas based power station costing INR 70bn (\$1.5bn).

Bramhani Industries Karnataka, promoted by the current Minister Janardhan Reddy, will invest INR 360bn (\$7.9bn) to setup a 6Mt/y steel plant in Bellary.

Other than these ultra mega projects, a number of small and medium size companies have proposed investment in Karnataka to cash in on the opportunity.

Steelware exporter, Varun Industries Ltd, signed a MoU with the government of Karnataka to set up a steel plant at cost of INR 3.04bn (\$62.7bn) at Bagalkote district. The government allotted 500 acres of land to set up

Company	Proposed investment		Project details
	(INR billion)	(US\$ billion)	
ArcelorMittal	300	6.63	6Mt/y integrated steel plant and 750MW power generation
Bramhani Industries Karnataka	360	7.96	6Mt/y integrated steel plant with captive power plant in Bellary. In Phase 1, 1.9Mt/y with a captive power plant of 68MW capacity
Bhushan Steel	279.28	6.17	6Mt/y integrated steel plant with 600MW co-gen project
Hazira Steel	177.60	3.92	Carbon steel products 6Mt/y capacity in Bagalkot
JSW Steel	151.32	3.34	To enhance installed capacity of steel plant at Bellary from 10Mt/y to 16Mt/y
Posco	300	6.63	6Mt/y steel plant in Bagalkot
Essar Steel	220	4.86	6Mt/y carbon steel plant at Bagalkot
NMDC and Severstal	90	2.00	2Mt/y, expandable to 5Mt/y
Tata Metaliks	-	-	3Mt/y

Table 3 Proposed steelmaking projects in Karnataka

the steel plant. The MoU would allow Varun to get a preferential allotment of mining licenses in Karnataka, giving its mining efforts a boost and opening up a new area for business development.

Tata Metaliks has also expressed interest in setting up an integrated steel project of 3Mt/y in the Haveri district of Karnataka. The company is engaged in the production of pig iron, castings, iron ore fines, coke breeze and limestone.

NMDC Ltd has entered a joint venture with OJSC Severstal, a leading steel and mining company in Russia, to set up a joint venture steel plant in Karnataka. Severstal will use its captive coking coal mining subsidiary in Russia and, the JV will use its Indian iron ore mining subsidiary to ensure long term supply of these critical raw materials for the proposed steel

plant. It will have an initial capacity of 2Mt/y which is expandable to 5Mt/y. NMDC and Severstal each will have a 50% shareholding in the JV and will appoint the senior management team. Rana Som, CMD of NMDC, estimated an investment of \$2bn for the project.

The government's pro-active approach has reaped reward in the form of MoUs. But, the proposed steel plants are yet to start building and have to face two primary challenges for the mining sector: land acquisition and environment control. BS Yeddyurappa, the chief minister of Karnataka believes that the government's compensation package formula is friendly for losers of land and hence, there will be no problem for land acquisition in the state. Secondly, steel producers have been told to install adequate pollution control equipment so that the damage to the environment will be minimised. ■