

Indian Steel :

Bleak Prospects

- Sanjay Sengupta

India's GDP growth during April – September, 2012 was 5.4 percent over 7.3 percent achieved in the same period of the previous year. In the whole year of 2012-13, the country's GDP is expected to grow by 5.5 / 5.8 percent over 6.5 percent recorded in the preceding year.

India's Index of Industrial Production (IIP) grew by only 1.2 percent during April – October, 2012 as compared to 3.6 percent in the same period of 2011.

The manufacturing sector, having a weightage of about 75.5 percent of IIP, rose by just one percent during April – October, 2012 over 3.8 percent achieved during the corresponding period of the previous year. The CORE SECTOR, representing the eight infrastructure industries, recordable growth of 3.5 percent during April – November, 2012 as against 4.8 percent in the same period of the previous year.

Amidst the above gloomy picture, the country's

crude steel production recorded a moderate growth of 4.84 percent and a rise of 4.36 percent in the consumption of finished carbon steel in H1 of 2012-13 over the same period last year.

Decline in Automotive Sector Growth

The overall growth of India's automotive sector in H1 of 2012-13 was a meagre 2.44 percent in production 3.62 percent in domestic sales and a negative growth of 5.96 percent in exports as against the corresponding growths of 16.62 percent, 14.36 percent and 32.31 percent in H1 of 2011-12.

Details of auto sector performance are shown in Table – 1 for H1 of 2012-13.

The auto industry accounts for 5/6 percent of India's total steel consumption.

Steel and Infrastructure

Long back, the then IISI, Brussels (now known as World Steel Association) observed that inadequate infrastructure in a country holds back its economic growth and acts as a deterrent to industry's competitiveness harming the Quality of Life of its people. IISI further said that infrastructure



development in a country is good for its economy and helpful in generating the demand for steel. The steel industry's interest coincides with national interest on this issue. The steel industries therefore, have an enlightened self interest in promoting the need for increased spending on infrastructure development.

Construction and Infrastructure

The path to the economic growth of a developing country like India is closely linked to the development of its infrastructure.

Any developing nation needs capital to ensure its economic growth and to attract such

Type of Vehicle	Production (H1 of FY'13)	% Change	Dom. Sales (H1 of FY'13)	% Change	Exports (H1 of FY'13)	% Change
Passenger Vehicles	1562916	5.29	1278763	6.96	267544	2.77
Commercial Vehicles	411078	(-) 4.58	385673	3.71	44017	1.91
3 Wheelers	377177	(-) 14.77	250497	0.59	136293	(-) 30.91
2 Wheelers	7840867	3.28	6779219	3.12	1003053	(-) 3.75
Total	10192038	2.44	8694152	3.62	1450907	(-) 5.96

N.B. % Change is change over H1 of FY'12.

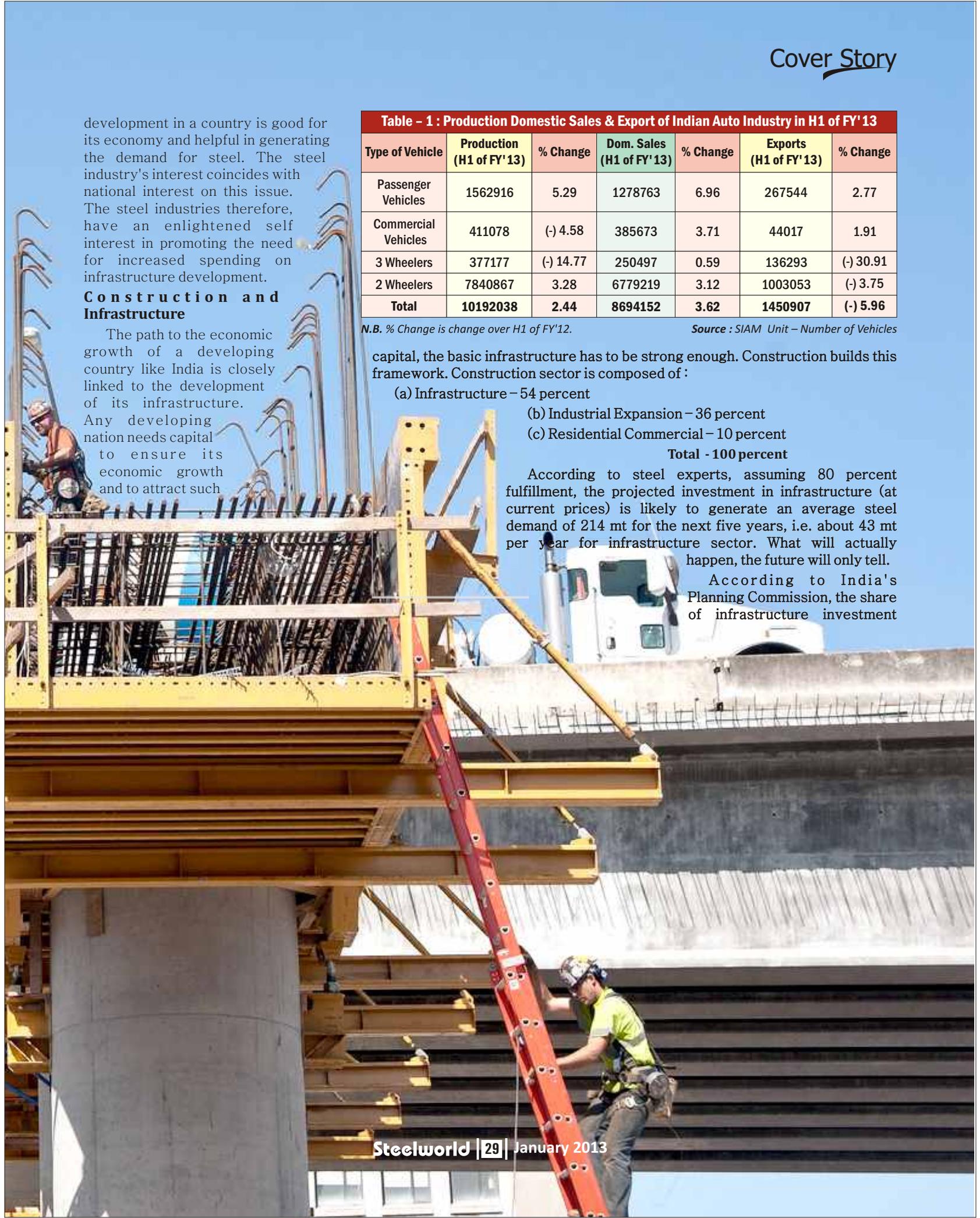
Source : SIAM Unit - Number of Vehicles

capital, the basic infrastructure has to be strong enough. Construction builds this framework. Construction sector is composed of :

- (a) Infrastructure - 54 percent
 - (b) Industrial Expansion - 36 percent
 - (c) Residential Commercial - 10 percent
- Total - 100 percent**

According to steel experts, assuming 80 percent fulfillment, the projected investment in infrastructure (at current prices) is likely to generate an average steel demand of 214 mt for the next five years, i.e. about 43 mt per year for infrastructure sector. What will actually happen, the future will only tell.

According to India's Planning Commission, the share of infrastructure investment



will be 9.50 per cent of GDP in 2013-14 and it will reach 10.70 percent in 2016-17. According to trends, the share of 9.50 percent in 2013-14, as visualized, seems to be rather over estimated.

Poor State of Infrastructure Development in India

The status of infrastructure development in India is poor and it suffers from low capacity in power generation, poor roadways, inadequate railway facilities particularly in goods transportation, low port facilities and policy hurdles by environment and forest departments, due to which many infrastructure projects are held up. Land acquisition problems have been a road block for setting up new projects. Bureaucratic delays also aggravates the problem.

During the 11th Plan period, excepting airports and telecommunications, all other sectors recorded shortfalls in target achievement to the extent of 20 percent or more. The worst performer was Electricity (incl. NCE sector) sector which had the highest projected investment of ₹ 665,525 crore, having a share of 32.42 percent of the total investment, planned for infrastructure development during the 11th Plan period. Against a target, capacity addition of 76,700 MW during the 11th Plan period, achievement was 54,968 MW or 71.67 percent – a shortfall of 28.33 percent.

During the 12th Plan, the estimated investment for infrastructure development is US\$ 1 trillion. According to Govt. sources, the investment or major infrastructure sectors will be as follows :

Electricity – 1,499,914 crore

Roads and Bridges – 920,071 crore

Telecommunication – 884,204 crore

Railways – 456,743 crore

Irrigation (incl. Watershed) – 430,103 crore. The investment during the 12th Plan period on the above sectors taken together will account for about 75.5 percent of the total proposed investment on infrastructure at US\$ 1 trillion.

Infrastructure Funding During 12th Plan

The Government has estimated a requirement of US\$ 1 trillion for infrastructure funding during the 12th Plan. Of this, the private sector is expected to contribute 50 percent through PPP projects.

To kick-start long-term infrastructure funding, the government has decided to put in action the operational structure of infrastructure Debt – Fund (IDF) including underlying regulations. This has been necessitated in the backdrop of banks, with a growing asset – liability mismatch, are constrained to providing long term funding for infrastructure development.

According to a Law Ministry Official, it will be possible for interested sponsors to launch IDFs once SEBI notifies the procedures / guidelines for IDFs through Mutual Fund route and the government notifies Model Tripartite Agreements for IDFs through NBFCs. The key to operationalising IDFs was the finalization of a Model Tripartite Agreement between the concessionaire, private party and IDF which strengthen the legal rights of the primary lenders and will be applicable for financing all infrastructure projects.

Vinayak Chatterjee, Chairman, Feedback infrastructure said, “The government is using an array of measures to generate investment in IDFs. This phase is of managing the process and legal formalities in order to convert earlier policy decisions into operational reality.”

Steel Demand

The major demand drivers of steel in India may be summarized as follows :

Construction / Infrastructure

- Projects
- Transport of Petroleum / Water / Gas
- Transmission Line Towers
- Rail Track
- Ports

Automobile Industry

- Commercial Vehicle
- Passenger Vehicles : Passenger Cars, Utility Vehicles, Vans
- Three Wheelers
- Two Wheelers

- Auto Components

Manufacturing Industry

- Tube Making
- Wire Drawing
- Fabrication
- Fastners
- Power Plant Equipment
- Agricultural Implements
- Household Appliance including White Goods

According to an estimate of India's Ministry of Steel, demand for finished steel may cross the 100 Mt mark by 2015-16. In 2012-13, finished steel demand would reach 77 Mt and will rise to 85 Mt in 2013-14. In 2014-15, the demand may touch 93.6 Mt and then reach 103.5 Mt in 2015-16.

According to World Steel Association, due to both unfavourable domestic and external economic conditions, India's steel demand is expected to rise by 5.5 percent in 2012 and by 5.0 percent in 2013 reaching 73.6 Mt in 2012 and 77.3 Mt in 2013.

World Steel Dynamics (WSD) in its issue dated 13.11.12 has observed that India's steel demand continues to grow at a substantial pace ; but to a far lesser extent that is forecast by many people in the country – perhaps 6 percent per annum versus the wishful forecasts of 9 percent per annum.

According to industry sources, the Indian steel industry witnessed a subdued demand growth of 2.8 percent in the second quarter of 2012-13 as against 7.7 percent in the previous quarter.

According to trends, India's steel demand may grow by 5 to 6 percent in 2012-13 and 2013-14.

Rural Market of Steel

Presently, the rural consumption of steel is low at about 10 kg per capita.

According to steel and economic experts, the reasons for the rural areas are as follows :

- Perception among the rural population that steel is a high cost material.
- Problems of processing steel in rural areas and supply constraints.
- Absence of specific policy support.

- Low growth of steel using industry in rural India.
- Absence of fabrication units and fabrication skills in rural sector.
- Absence of concerted promotional efforts.
- Low disposable income of the rural population

In 2011, the Joint Plant Committee (JPC) sponsored a rural survey. According to the survey, the lead or major items of steel consumption in India's rural market in various segments of rural life were as follows:

Lead Item : Steel Consumption in Indian Rural Market		
Segment	Lead Item	% Share
Construction Community Construction Household	School Building New Construction	62
Items for Professional Use	Threshar, Plough	5
Furniture	Almirah	3
Vehicles	Tractors	14
Household Items	Ceiling Fan, Cauldron, Storage Tank	16
Total		1000

The reasons for low steel consumption, as briefly mentioned earlier, can be identified as back of availability of steel and more importantly, the lack of steel fabrication facilities around the Indian villages. There is a common perception among the rural population that steel is a high cost material which is not easily available. No sustained campaign has been organized to educate the rural population about the safety and long-term benefits of using steel.

However, during the past five years or so, the major Indian steel producers like SAIL, Tata Steel, Essar Steel, Jindal South – West Steel and RINL etc. have made commendable work to penetrate in rural areas by widening their rural network. The dealers and distributors are being engaged by these producers that facilitated additional marketing of steel products like reinforced bars, galvanised sheets and cold-rolled sheets.

According to industry sources, about 13,000 distributors / outlets have been setup by the above major steel producers all over the country for catering to the needs of small requirements of the rural sector by

innovating marketing strategies which includes free transportation of steel materials from plants / warehouses to the premises of the rural dealers. Supply of rebars and galvanized steel sheets by pieces and by small tonnages, engaging rural dealers in promoting steel consumption by distributing brochures, product details etc. free of cost. The rural dealers / distributors are also motivated to hold small workshops / seminars by inviting masons, designers, small builders and discussing with them to concerns about the advantages of using steel products

in construction and other application areas.

In order to promote steel fabrication facilities in the rural areas, INSDAG has devised a unique scheme of training village entrepreneurs on the basics of steel fabrication technology so that the steel-made doors, windows, racks, almirahs, storage bins etc. can be made locally with adequate repairing facilities in the rural areas itself.

Technology Innovations

Major Indian steel producers have been making earnest efforts to upgrade production and process technologies in iron and steel making to save energy costs, environ-friendly and cost-effective steel production as well as to remain competitive in the domestic and global markets. Some major ventures in this direction are listed producerwise :

SAIL



- SAIL has planned to introduce FINEX technology patented POSCO of Korea. It will set up a 3 Mtpy capacity joint venture plant at Bokaro, Jharkhand based on the above technology. FINEX is an environment friendly technology that uses iron ore fines and non-coking coal as inputs.

- SAIL's Bhilai Steel Plant is installing its Blast Furnace No. 8 with a capacity of useful volume of 4060m³ which will produce 8030 tonnes of hot metal per day. The BF will have a modern design with state-of-the-art environment friendly and amp; energy efficient technology such as Top Recovery Turbine, Waste – heat Recovery System along with other energy-efficient and pollution control equipments.

- SAIL is also installing a similar BF in its IISCO steel plant in Burnpur, West Bengal under its modernization plan.

Both the above BFs are being installed by Paul Wurth Italia SPA along with Paul Wurth India Pvt. Ltd. and local partner Larsen & Toubro Ltd.

- SAIL has entered into a joint venture with Kobe Steel of Japan to adopt ITmk3 technology of Kobe Steel to be used in its proposed steel mill at SAIL's Alloy Steel Plant at Durgapur to produce iron ore nuggets. The process does not use coking coal.

- SAIL's new 1.2 Mtpy universal mill at its Bhilai Steel Plant to be installed a consortium of SMS Meer Germany (as leader), SMS Meer India Projects and ABB Ltd., Bangalore. The mill will produce 130 meter long rails as a single piece and will have all modern features like in-line rail head hardening, on-line non-destructive testing for production of world class rails.

- SAIL's upcoming 1.2 Mtpy capacity CR Mill complex at Bokaro being installed by Siemens VAI of Austria, will have a Pickling Line Coupled with Tandem Cold Mill (PLTCM) equipped with heavy gauge welder, pickling section, horizontal loopers, side trimmer, 5-stand 6-Hi CR Mill and a carrousel coiler. The CR Mill will produce high quality auto grade steel which will have highest standards in terms of strip flatness, surface finish, strip cleanliness and dimensional tolerances.

- SAIL has tied up with CBMM, Geneva for developing APIX – 80 grade steel at its Bhilai and Bokaro Plants. These high strength steels are used in pipeline applications for transporting oil and gas.

Tata Steel



- Tata Steel has installed new technologies like Coke Dry Quenching (CDQ) pelletisation, thin-slab casting to establish better environment, low energy consumption and lower CO₂ emission.

- Tata Steel has started work for underground mining project at its Sukhinda Chromite mine with an annual beneficiation capacity of 6.5 lakh tonnes. At present, the mine is the only producer of 'hexavalent chrome free' chromate concentrate, made through a patented herbal treatment process that adds green credits to the organization.

- Tata Steel has signed a joint venture agreement with Nippon Steel of Japan to install India's first Continuous Annealing Line (CAL) of 600,000 tpy capacity of auto-grade cold-rolled steel at Jamshedpur.

- Tata Steel will install non recovery ovens for better environment management and regenerative burners in its Re-heating Furnace No. 3 to achieve lower energy consumption during reheating of slabs.

- Tata Steel has launched 'Tata Astrum' a branded item of its Hot Rolled products range with this, company has made a foray into branding of HR products in the SME Segment aiming at de-commoditizing steel and offering best-in-quality product to customers. The material will be supplied to customers in processed form out of the service centres for the convenience to customers through consistent supply of ready-to-use quality HR products.

RINL's VSP

- Vizag Steel Plant (VSP) has



of 40,000 tpy capacity at an investment of ₹ 2,300 crore. The mill will produce seamless steel tubes of 5.5 to 18.0 inches in diameter.

- VSP has entered into a MoU with Power Grid Corporation of India for setting up Electrical Steel production facility in a joint venture. The project envisages production of both CRGO and CRNO steel by setting up a new Hot Strip Mill suitable to feed right quality of HR coils for production of CRGO / CRNO steels.

Essar Steel Ltd.



- Essar has installed the world first 3-strand CSP plant supplied by SMS Siemag of Germany with a capacity of 3.5 Mtpy of hot rolled strips which will help in producing carbon steel as well as pipe grades, silicon steel and dual phase steel besides auto grade and LPG steels.

- Essar has commissioned two CONARC furnaces of 2.5 Mtpy capacity of each, a Blast Furnace, DRI plant of 1.74 Mtpy capacity and two COREX units of 0.87 Mtpy each.

- Essar has adopted three iron making technologies like :

(a) The complex at Hazira uses varying grades of iron ore inputs including lump ores, fines, slimes, sinter and pellets.

(b) The steel complex uses different kind of energy sources : natural gas, COREX export gas, blast furnace gas, coking and non-coking coals.

- Essar has commissioned a 6 Mtpy

capacity pellet plant at Paradip in Odisha in the first phase of the 12 Mtpy capacity plant to be made operational by 2013. The company is investing Rs. 4,2000 crore to set up an integrated facility in Odisha which includes a 12 Mtpy capacity iron ore beneficiation facility a Dabuna and is also building a 253 km long slurry pipe line connecting Dabuna and Paradip.

- Essar has signed a MoU with Kobe Steel of Japan to produce auto grade steel. The collaboration will be in the areas of technology for manufacturing high strength steel (AHSS) used in the automotive and other relevant sectors.

Jindal South West Steel Ltd. (JSWSL)

- JSWSL is setting up a 0.2 Mtpy capacity in the first CRNO plant vijaynagar in collaboration with JFE of Japan which now holds 15 percent stake in the company. Initially, this facility will produce 0.4 – 0.5 Mtpy CR NO grade steel.

- JSWSL is building two new color coating lines at Vasind. With the competition of these two lines, the company will become one of the highest producers of colour coated sheets in India.

- JSWSL has placed an order with SMS Siemag of Germany for installing a Pickling Line Coupled with Tandem Cold Mill (PL TCM) at its Torangallu plant in Karnataka. The 2.3 Mtpy capacity mill will produce C.R. Strips in widths up to 1890 mm of superior grade steels for high-end applications in the automotive sector.

- JSWSL's agreement with JFE of Japan will help it to develop various grades of steel including steel for external panels of automobiles in high strength viz JFE – HITEN, JAZ®, zinc coated sheets with external lubrication etc. to meet the high-end demand of customers.

Jindal Steel & Power Ltd. (JSPL)

- JSPL has signed an agreement with Rio Tinto of Australia to install H1 – smelt technology for the first time in the world – other than a Pilot Plant of Rio Tinto – the Kurinana H1 – Smelt facility in Australia. The Kurinana plant will be relocated at JSPL's upcoming 6-Mtpy capacity steel plant at Angul in Odisha.



- Under the expansion plan of JSPL's Raigarh plant to 6.5 Mtpy from 3.5 Mtpy, the company will set up a new blast furnaces per SMS Siemag's CSP technology which will include SMS Siemag's complete X-Pack® electrical and automation package. The modernization of slab caster will consist of several Intelligent Slab Casting (ISC) modules which will ensure very high quality of the products.

- Tenova and Danieli CSPA as a consortium have made an agreement with JSPL to supply ENERGIROZR direct reduction technology for the company's DRI plants to be installed at Angul in Odisha and Raigarh in Chattisgarh.

The project consists of DRI plants using reformerless ENERGIROZR process of 2.75 Mtpy capacity each. JSPL has planned to set up modern DRI Plants at various locations with a combined production capacity of 10 Mtpy of the highly metallised DRI for supplying to its steel plants.

Bhushan Steel Ltd.



- Bhushan steel has planned to set up an advanced pickling line coupled with tandem cold mill and (PLTCM) and a continuous annealing line (CAL) facilities for its Angul steel plant in Odisha. These will help in the production of high strength steel of thinner gauges for auto sector.

- Bhushan planned to install SMS Logisticsteme – a new roller table system that will connect continuous casters 2 and 3, at its Angul Plant, to the HR Mill and flame scarfing machine to the fully automated system. This

Producers	Capacity in 2009-10	Capacity in 2012-13	Capacity in 2019-20
SAIL	12.84	23.50	47.0
RINL-VSP	2.90	6.30	11.0
Tata Steel	6.80	13.00	23.0
Essar Steel	4.60	14.50	20.0
Jindal S.W. Steel	6.60	11.00	22.0
Jindal Ispat	3.60	4.20	8.0
JSPL	2.40	10.45	21.0
Bhushan Power Steel	1.20	2.80	6.0
Bhushan Steel Ltd.	0.80	3.00	6.0
New Majors	==	==	24.0
Secondary Producers	31.00	34.20	42.0
Total	72.74	122.95	230.0

Source : INSDAG

facility will carry the hot slab from the continuous casters to RH furnaces of the HS Mill to slab store or to flame scarfing machine and will help to decouple the processes of casting and hot rolling.

Indian Steel Industry

India's projected capacity addition of crude steel is shown in Table – 2.

Performance of Indian Steel Industry in H1 of 2012-13

Performance of the Indian steel industry between April, 2012 and September, 2012 (H1 of 2012-13) is presented below :

Production of Crude Steel

India's production of crude steel during H1 of 2012-13 is shown in Table – 3.

In general, production was constrained by the lower availability of

raw materials, particularly that of iron ore.

According to World Steel Association (WSA), India with an output of 71.3 Mt was the fourth highest global producer of crude steel in the calendar year of 2011. As per the provisional figures released by WSA, India with a production of 70.12 Mt remained the fourth highest global producer of crude steel during the first 11 months (January to November) of the calendar year of 2012.

Categorywise Production of Finished Carbon Steel During H1 of 2012-13 vis-à-vis H1 of 2011-12

Production for sale is arrival at after deducting Inter-Plant Transfers (IPT) and producers' own consumption from gross production.

Producers	Production During		% Change
	H1 of 2012-13 (P)	H1 of 2011-12	
SAIL	6759	6569	2.89
RINL-VSP	1503	1517	(-) 0.92
Tata Steel	3745	3536	5.91
Jindal SWSL	4311	3453	24.85
JSW Ispat	1369	1248	9.70
Essar Steel	1900	2275	(-) 16.48
JSPL	1455	1237	17.62
Others (Est.)	17420	16852	3.37
Total (All India)	38462	36687	4.84

Data Source : JPC (P) = Provisional

Table - 4 : Categorywise Production for Sale of Finished Carbon Steel in India During H1 of 2012-13 vis-à-vis H1 of 2011-12 ('000 tonnes)

Category	Production for Sale During		% Change
	H1 of 2012-13 (P)	H1 of 2011-12 (P)	
Bars & Rods	13716	14039	(-) 2.30
Structurals	2472	2418	2.23
Rly. Materials	478	446	7.17
Total Long Products	16666	16903	(-) 1.40
Plates	2047	2268	(-) 9.74
HR Coils / Skelp	7342	7147	2.73
HR Sheets	283	272	4.04
CR Sheets / Coils	4348	3490	24.58
GP/GC Sheets	3237	2933	10.36
Elec. Sheets	89	85	4.71
Tinplate (incl. w/w)	119	118	0.85
Pipes (large dia)	1005	965	4.15
Total Flat Products	18470	17278	6.90
Total Finished Carbon Steel	35136	34181	2.79

Categorywise production of finished carbon steel in India during H1 of 2012-13 vis-à-vis H1 of 2011-12 are shown in Table - 4.

The overall growth of finished carbon steel during H1 of 2012-13 was a meager 2.79 percent over H1 of 2011-12. This has happened due to a negative growth of 1.40 percent in production for sale of long products during the above comparative periods. Long products has a share of 47.4 in the total production for sale of finished carbon steel in H1 of 2012-13.

From the details available from JPC, it is observed that among the major finished carbon steel products, RINL-VSP was the highest producer of bars & rods in H1 of 2012-13 with an output of 1.13 Mt. SAIL was the highest gross producer of Plates at 1.19 Mt while JSWSL was the highest gross producer of HR Coils, CR Sheets / Coils and GP/GC Sheets with respective output of 2.53 Mt, 1.17 Mt and 0.55 Mt in H1 of 2012-13.

Imports

Categorywise imports of finished carbon steel by India during H1 of 2012-13 vis-à-vis H1 of 2011-12 are shown in Table - 5.

Overall, the imports of carbon finished steel by India during H1 of 2012-13 has gone up by 33.82 percent

Data Source : JPC (P) = Provisional
over H1 of 2011-12. In case of long products, imports have grown by a hefty 68.97 percent, though its imports had a share of only 11.35 percent of the total imports of finished carbon steel during H1 of 2012-13.

Highest import is observed during

H1 of 2012-13 in case of HR Coils at 813,000 tonnes followed by CR Sheets / Coils at 776,000 tonnes and Plates at 409,000 tonnes. These three products, taken together, accounted for 74.55 percent of the total imports of flat products and 66.09 percent of the total imports of finished carbon steel during H1 of 2012-13.

Exports

Categorywise exports of finished carbon steel by India during H1 of 2012-13 vis-à-vis H1 of 2011-12 are shown in Table - 6.

Despite a downtrend in the global steel market, the Indian steel producers helped to achieve a growth of 5.58 percent in the exports of finished carbon steel in H1 of 2012-13 over H1 of 2011-12.

The exports of long products increased by 58.56 percent during the above comparative periods, though its volume was only 8.31 percent in the total exports of finished carbon steel during H1 of 2012-13.

Highest exports are observed in case of HR Coils at 597,000 tonnes and GP/GC Sheets at 789,000 tonnes in H1 of 2012-13.

Table - 5 : Categorywise Imports of Finished Carbon Steel by India During H1 of 2012-13 vis-à-vis H1 of 2011-12 ('000 tonnes)

Category	Import During		% Change
	H1 of 2012-13 (P)	H1 of 2011-12 (P)	
Bars & Rods	294	177	66.10
Structurals	38	23	65.22
Rly. Materials	11	3	266.67
Total Long Products	343	203	68.97
Plates	409	238	71.85
HR Coils	813	641	26.83
HR Sheets	61	26	134.62
CR Sheets / Coils	776	716	8.38
GP/GC Sheets	225	156	44.23
Elec. Sheets	198	121	63.64
Tinplate (incl. w/w)	89	68	30.88
TMBP	1	1	==
Pipes (large dia)	74	65	13.85
Tin Free Steel	34	24	41.67
Total Flat Products	2680	2056	30.35
Total Finished Carbon Steel	3023	2259	33.82

Data Source : JPC (P) = Provisional

Table - 6 : Categorywise Exports of Finished Carbon Steel By India : H1 of 2012-13 vis-à-vis H1 of 2011-12 ('000 tonnes)

Category	Exports During		% Change
	H1 of 2012-13 (P)	H1 of 2011-12 (P)	
Bars & Rods	148	70	111.43
Structurals	26	15	93.33
Rly. Materials	2	26	(-) 92.31
Total Long Products	176	111	58.56
Plates	118	248	(-) 52.42
HR Coils	597	594	0.51
HR Sheets	106	20	430.00
CR Sheets / Coils	199	152	30.92
GP/GC Sheets	789	601	31.28
Elec. Sheets	1	1	==
Tinplate (incl. w/w)	21	15	40.00
Pipes (large dia)	110	262	(-) 58.02
Tin Free Steel	1	2	(-) 50.00
Total Flat Products	1942	1895	2.48
Total Finished Carbon Steel	2118	2006	5.58

India remained a net importer of finished carbon steel during H1 of 2012-13.

Apparent Consumption

The apparent consumption of finished carbon steel in India is shown, categorywise, for H1 of 2012-13 vis-à-vis H1 of 2011-12 in Table-7.

Overall growth in the apparent consumption of finished carbon steel during H1 of 2012-13 over H1 of 2011-12 was 4.36 percent. Consumption of long products recorded a negative growth of 0.50 percent in the above comparative periods due to lower off-take by construction and infra sectors. Double counting occurs only in case of flat products. After accounting for double counting, the real consumption of flat products has increased by 9.75 percent in H1 of 2012-13 over H1 of 2011-12.

The negative growth in the consumption of Bars & Rods points to the poor development of the infrastructure during the first half of 2012-13.

According to WSA's provisional figures, India with an apparent steel use of 67.8 Mt in the calendar year of 2011, achieved the third highest position in the world after China and the U.S.

Data Source : JPC (P) = Provisional

Conclusion

The dismal performance of India's industrial and manufacturing sectors during the first half of 2012-13 has

retarded the growth of India steel industry. Low demand and high taxes have aggravated the situation.

As per RBI's mid year review, the country's GDP growth is likely to reach 5.8 percent in 2012-13 over 6.5 percent achieved in the previous year. In the said reviews the RBI has stuck to the level of financial deficit in 2012-13 at 5.3 percent of the GDP which may be difficult to achieve. The Indian steel producers are continuously upgrading their production technologies for producing high grade materials suitable for high-end applications in a cost-effective and eco-friendly manner. The slowdown in the global steel industry has also affected adversely the growth of Indian steel industry. The Central Government is trying to boost India's infrastructure development by taking some positive measures. In the short-term, India's steel industry is not expected to show high growth.

Acknowledgement

Article entitled 'A Review and Outlook for Indian Steel' by Sushim Banerjee, DG, INSTAG published in 'Iron & Steel Review' - July 2012.

Table - 7 : Categorywise Apparent Consumption of Finished Carbon Steel in India : H1 of 2012-13 vis-à-vis H1 of 2011-12 ('000 tonnes)

Category	Apparent Consumption During		% Change
	H1 of 2012-13 (P)	H1 of 2011-12 (P)	
Bars & Rods	14136	14305	(-) 1.18
Structurals	2491	2462	1.18
Rly. Materials	541	487	11.09
Total Long Products	17168	17254	(-) 0.50
Plates	2384	2329	2.36
HR Coils / Skelp	7706	7324	5.22
HR Sheets	251	292	(-) 14.04
CR Sheets / Coils	4969	4114	20.78
GP/GC Sheets	2729	2489	9.64
Elec. Sheets	289	200	44.50
Tinplate (incl. w/w)	189	168	12.50
TMBP	1	1	==
Pipes (large dia)	981	746	31.50
Tin Free Steel	33	22	50.00
Total Flat Products	19532	17685	10.44
Less Double Counting	2508	2174	15.36
Total Finished Carbon Steel	34192	32765	4.36

Data Source : JPC (P) = Provisional